ROMAYA

RESEARCHES ON MULTIDISIPLINARY APPROACHES
MULTİDİSİPLİNER AKADEMİK YAKLAŞIM ARAŞTIRMALARI

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The Mediating Role of Tourism Support Between Community Participation and Community-Centered Economy: The Case of Bergama Multi-layered Cultural Landscape Area 🔴

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Abstract

Bergama is a district in the north of Izmir and home to many cultural heritage sites. The ancient ruins, historical buildings, and natural beauties of Bergama constitute the rich multi-layered cultural landscape of the region. It has great potential for tourism with its cultural heritage sites. By revealing these values, tourism activities increase interest in the region and revitalize the local economy. Developing tourism activities in Bergama has caused local people to be involved in tourism. From an economic perspective, tourism activities in Bergama provide an important impetus to the local economy. In Bergama Multi-layered Cultural Landscape Area, community participation and economic development come to the forefront with the effects of tourism. While tourism is developing, the support of local people is important for destinations. This study aims to examine the mediating role of Bergama's local people's support for tourism between their participation in tourism management and a community-centered economy. Within the scope of this study, a questionnaire was administered to 385 local people living in Bergama, which is on the UNESCO World Heritage List. The study population, conducted quantitatively, consists of 107.133 people living in the Bergama district. The data collected through the survey were analyzed, and a structural model was established. The results show that economic income from tourism is an important factor that increases the willingness of local people to participate in tourism management, and that support for tourism is a mediating variable between community-centered economy and community participation variables.

Keywords: Community Participation, Support to Tourism, Community Centered Economy, Bergama.

JEL Codes: Z32

Doğu Baranaydın / Bora Coşar

Introduction

Bergama District, located within the borders of Izmir Province, is a multicultural and layered settlement with many tangible and intangible elements and the common heritage of humanity, starting from the Hellenistic period, experiencing the Roman, Byzantine, Byzantine, Karasi, Ottoman and Republican Periods, respectively, and intertwining all these periods (Bayazit and Binan, 2023:306). Bergama harbors different beliefs, such as Paganism, Judaism, Islam and Christianity, as well as the artifacts of these beliefs. Owing to these features, Bergama was included in the UNESCO World Heritage List in 2014 as a "Multi-layered Cultural Landscape Area". It fulfills five criteria for inclusion in the heritage list. The Multi-layered Cultural Landscape Area consists of nine components. These are; Multi-layered City, Kybele Rock Sanctuary and seven Tumuli (Bergama Alan Başkanlığı, 2023).

The success of tourism movements in destinations depends on local people's support for tourism and participation in tourism policy making. The local people form the basis of political, social, and economic structures. Destination management, which includes local community involvement, is essential for the success of tourism in destinations and for balancing the welfare of the community with economic benefits for local people (UNWTO, 1999:4). The influence of tourism has garnered a growing interest from researchers. This is primarily because the perceptions and attitudes of local people towards tourism impacts serve as crucial planning and policy tools for the successful development, marketing, and operation of existing and future tourism programs and projects. For tourism to thrive in a destination area, its negative impacts must be minimized and welcomed by the host population (Ap, 1992:665). This type of research examines the participation and support of local people in tourism and provides important data for tourism management and policymaking. This investigation aimed to gauge the influence of tourism income on the involvement of local residents in Bergama and the community-oriented economy as well as the extent of social engagement fostered by the support provided to tourism. A model was used to clarify the relationships between these variables.

In the context of this model, the first hypothesis of the research is to reveal whether community-centered economies have a positive effect on community participation. Accordingly, it is thought that community-centered economic power will be further strengthened with the participation of local people in the process, both as managers and supporters. Because it does not seem possible for regional tourism to develop and strengthen without local people.

The second hypothesis of the research is on the effects of community-centered economies on tourism support. The support of community-centered economies by both the state and the local people is very important in terms of contribution to the country's economy. In addition, it is expected that regional community-centered economic forces will positively affect tourism support because the only way to create a sustainable tourism economy is to continue on the path with the support of all stakeholders.

The third hypothesis of the study is whether the support given to tourism will positively affect community participation. It is not difficult to predict that the support of tourism by well-educated and informed local people in cooperation with state administrators will have a positive impact on participation. However, the important point here is the level of education and awareness of the local people on the subject. Therefore, this hypothesis was added to the study in order to reveal the results of this level.

Finally, the fourth hypothesis of the study is whether the support given to tourism has a mediating effect on the relationship between the community-centered economy and community participation. In this context, it is predicted that adding the support given to tourism as a mediator to the relationship between the economy in which the community is involved and participation will increase the relationship. Because the economy created without the support given to tourism by both the local people and the state administrators may have less positive effects on participation than expected. Therefore, the support given to the tourism variable has a key role in this study.

Conceptual Model

Tourism policy makers and planners have been carrying out various efforts to involve local people in tourism management. The most important reason for these efforts is that local people are directly affected by tourism and that they are the main source of the hospitality atmosphere in tourism that takes place in the destination (Simmons, 1994:98). Studies on the subject indicate that tourism development is negatively affected in destinations where local people resist tourism and are prejudiced against it (Choi and Murray, 2010:576). The future of tourism in destinations depends on evidence-based, inclusive, and local community engagement. Local people at destinations need to support tourism to create successful and sustainable tourism strategies. Despite this, the participation of local people in tourism planning in destinations is minimal and short-lived (McKenna and Hanrahan, 2024:1).

Tourism in rural areas can be an important tool that can compensate for income losses and support local economies during economic downturns. The tourism sector can mitigate the negative effects of economic fluctuations by providing alternative employment and income opportunities for the local population. In this context, the importance of tourism

in rural development plays a critical role in ensuring economic diversification and sustainability of communities (Dičevska and Simončeska, 2012: 280). The generation of tourism revenue is not limited to direct payments from tourists to the local communities. There are also indirect effects, such as spending from the tourism sector on other non-tourism sectors. Approximately 50-90% of the impact of tourism is due to indirect effects. This means that the income multiplier can vary between 2 and 10 (Suriya 2010:4). Local community support and participation in tourism are crucial for the development of tourism at destinations (Garaca et al. 2014; Wang et al. 2019). In the context of tourism planning, community participation involves all stakeholders (local government officials, local citizens, architects, developers, businesspeople, and planners) in the decision-making process in a shared manner (Haywood, 1988:106). Participation is not only about ensuring a more efficient and equitable distribution of material resources but also about sharing knowledge and transforming the learning process in ways that contribute to individuals' personal development (Okazaki, 2008:511).

Social Exchange Theory is one of the most frequently used theories for understanding local people's perceptions and attitudes towards tourism. The theory is based on the assumption that local people evaluate the impacts of tourism and will support tourism development if they believe that the positive impacts outweigh the negative ones (Núñez-Tabales et al., 2024:23). Social exchange theory provides an important theoretical framework for understanding the change of individuals and groups in order to analyse the interactions between tourists and local people. According to this theory, individuals undergo change processes in line with the costs and benefits brought by mutual interactions. In the context of tourism, social exchange theory is used to explain the attitudes of local people towards tourism and their tendency to support tourism. Research in this context focuses on understanding the perspective of local people, who are the biggest stakeholders of tourism, towards tourism and their supportive behaviours towards tourism (Jurowski et al. 1997; Andereck et al. 2005). When local people believe that tourism contributes positively to their well-being, they support the development of tourism in the tourism destination and have a positive attitude towards tourists. However, local people who think that tourism harms the region or poses a problem, have a negative attitude towards tourism development and show resistance to tourism (Abdollahzadeh and Sharifzadeh, 2014). Approaches based on Social Exchange Theory suggest that local people are likely to engage with the tourism industry as long as they receive or expect to receive benefits that are greater than the costs they incur (Stylidis, 2018). However, in cases of negative impacts of tourism activities, i.e. when the costs incurred exceed the benefits, negative perceptions will emerge and support for tourism will decrease. This theory, based on cost-benefit analysis, forms the basis of many studies in the tourism literature (Yuan et al., 2019; Rasoolimanesh et al., 2017). Local people's participation in tourism management can shape their attitudes towards tourism development (Cao et al., 2021). This theory may not be able to examine local people's economic benefits from tourism, community participation, and support for tourism. Lee (2013) extends this theory and builds a new model. In the model, variables such as perceived impact and cost, social impact, and social participation were examined in terms of local people's support for tourism. This study was based on this model. This study examines the effect of support for tourism and a community-centered economy on social participation among the variables in the model.

Research Hypotheses

Choi and Murray (2010) surveyed the local population of New Braunfels, Texas, and concluded that the local population considers income from tourism a vital economic activity. The research revealed that support for tourism is related to social participation, and economic development is related to support for tourism. Okazaki (2008) applied both qualitative and quantitative methods in his study on Coron Island, Palawan, the Philippines. The model established in this research indicates that local people who do not participate in tourism planning and management and who cannot earn income from tourism are against tourism development. When local people benefit economically from tourism activities at the destination, they may show hospitality, courtesy, and friendship towards tourists (Ap, 1992:685). Support for tourism development is related to tourism's perceived positive effects. This is negatively related to the negative impacts of local people (Ap, 1992:684). Janusz et al. (2017) found that local people who are close to tourism areas and are positively affected economically support tourism development. Rasoolimanesh et al. (2015) and Stylidis et al. (2014) found that local people earning income from tourism or working in tourism enterprises have also changed their support for tourism. Studies suggest that people who work in the tourism sector or have someone in their family who works in the tourism sector will be more supportive of tourism. Nugroho and Numata (2022) conducted a quantitative study of local people living in settlements adjacent to Gunung Ciremai National Park in Indonesia. They collected 934 usable questionnaires and concluded that perceived economic benefits and community involvement had the greatest impact on local people's support for tourism development.

Based on the above arguments, hypotheses H1, H2, H3, and H4 were derived from the literature.

H1: Community-centered economies have a positi-

ve impact on community participation.

H2: Community-centered economies have a positive impact on tourism support.

H3: Support for tourism positively affects community participation.

H4: Support for tourism has a mediating effect on the relationship between a community-centered economy and community participation.

Research Methodology

For the research model, the 5-item community-centered economy scale and the 6-item community participation scale were adapted from Dragin et al. (2023), and the 5-item scale of support in tourism was adapted from Núñez-Tabales et al. (2024). Responses were scored on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The research questionnaire consists of two parts. The first section includes demographic variables such as gender, age, education level, marital status, occupation, and income, while the second section includes questions on the community-centered economy, support for tourism, and community participation scale. Convenience sampling is applied in this research, in which every member of the universe has a chance to enter the sample (Spiegel, 1995:223). A total of 385 questionnaires were obtained, with a 95% confidence interval. The population of this study comprised local residents aged 18 years and above living in the İzmir Bergama region. The total population size was 107,133 individuals. The survey was conducted in July and August 2024, utilizing both face-to-face interviews and online links. The face-to-face interview rate was 82%. Online interviews were conducted with references from these individuals. This was necessary to reach a 95% confidence interval number.

Methods Used in Data Analysis

In the context of this research, reliability, correlation, validity analyses, fit indices, path analysis, and effect levels were examined. Data were analyzed using the Smart PLS 4 program with a 95% confidence interval.

Ethical Considerations

Permission (02.07.2024 - E-45778635-050.99-152142) was obtained from the Ethics Committee of the Istanbul Beykent University to conduct this study.

Findings

When the demographic characteristics of the participants are examined, it is seen that 44.1% are female and 55.9% are male. These close rates are important in terms of homogeneity. 66.9% of the participants are married and 33.1% are single. According to the-

se rates, it can be said that the married participants are more sensitive about the tourism sector and the economy of the country. 16.7% of the participants have a primary school, 51.1% have a high school, 29.3% have a university and 2.9% have a postgraduate education. According to these rates, it is seen that the participation of individuals with high school and above education is at a high level. This shows that their education and awareness on the subject are at a certain level. Finally, 9.1% of the participants are between the ages of 18-24, 21.9% are between the ages of 25-34, 36.7% are between the ages of 35-44, 23.1% are between the ages of 45-54 and 9.2% are 55 and above. It is seen that the majority of the individuals who contributed to the study are middle-aged and above. This may indicate that the local people living in that region may have more knowledge of the issues in the tourism field of the region.
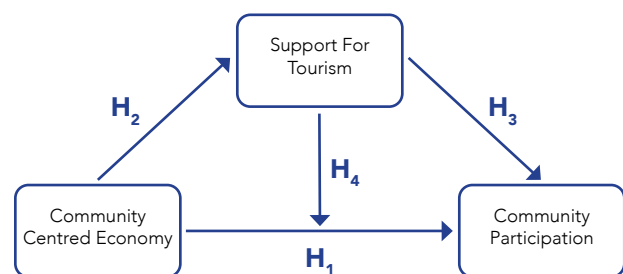
Figure 1. Research Model

Considering the correlation analysis of the conceptual model, it is possible to conclude that there is a high level of relationship between all variables (p<0.001). In addition, when we looked at the reliability analysis of the variables used in the research, Cronbach's alpha, rho_A, and CR values were above 0.7. When these values are 0.7 and above, it means that they are considered acceptable. Depending on the convergent validity of the conceptual model, it is necessary for the AVE value to be greater than 0.5 (Hair et al., 2016). The results of the analysis showed that the AVE values were also greater than 0.5.

Table 1. Reliability and Correlation Analysis Results of the Conceptual Model

Variables	1	2	3
Community Centered Economy	1	0.68	0.66
Community Participation	0.68	1	0.69
Support for Tourism	0.66	0.69	1
α	0.82	0.85	0.80
rho_A	0.82	0.85	0.80

CR	0.82	0.85	0.80
AVE	0.58	0.57	0.56

To ensure discriminant validity, the Fornell-Larcker criterion has emerged as an important analysis. At this point, the cross-loading of the indicator can be evaluated using the Fornell–Larcker criterion. Considering the cross-loading, the factor loading values on the assigned construct should be higher than all values of the other constructs, provided that the cut-off value of the factor loading is greater than 0.7 (Coşar et al., 2020:6). Accordingly, it is possible to claim that the conceptual model has significant value for the Fornell-Larcker criterion.

Table 2. Discriminant Validity Results of the Conceptual Model According to Fornell-Larcker Criterion

	1	2	3
Community Centered Economy	0.76		
Community Participation	0.68	0.75	
Support for Tourism	0.66	0.69	0.75

Considering the fit indices of the conceptual model, the Square Root of Standardized Error Squared (SRMR), Squared Euclidean Distance (d_ULS), Geodesic Distance (d_G), and Normed Fit Index (NFI) values came to the fore. For the model to have a significant fit, the SRMR value should be less than 0.10. In this model, the SRMR value is 0.06. The NFI value close to one means that the model has a good

fit (Yılmaz & Kinaş, 2020: 446-447). The fit indices of the conceptual model showed that the NFI value was 0.83.

Table 3. Summary of Fit Indices of the Conceptual Model

Variables	Realized Model	Estimated Model
SRMR	0.06	0.06
d_ULS	0.62	0.62
d_G	0.21	0.21
Chi-square	461.50	461.50
NFI	0.83	0.83

Path analysis is a statistical method that allows the examination of relationships between variables in a single equation. Testing the model with data can determine whether the pattern between the variables is supported by the data. Factor loadings and power coefficients between the variables were calculated from the analysis. Path diagrams and analysis findings are visualized through the model, providing a clear representation of the relationships between variables (Schumacher & Lomax, 2004: 202-204). Mediation and interaction occur when there is a causal sequentiality of three or more variables, allowing for effective revelation of the cause-and-effect relationship between multiple variables. Path analysis also includes the calculation of factors and regression analyses, making it a comprehensive tool for examining complex relationships between variables. In this context, when the factor (>500) and regression (>200) values of the model are analyzed, it is possible to say that high and significant values occur (Kozak, 2014:156).
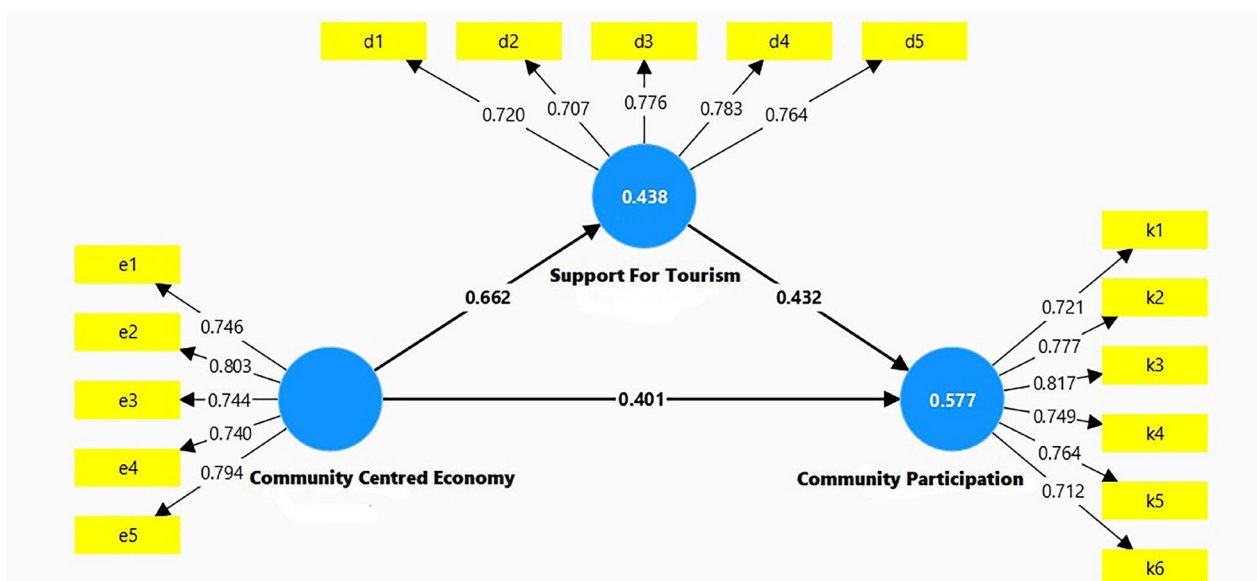
Figure 2. Path Analysis of the Conceptual Model

Regression coefficients (β), t-statistic values, explained variance values (R²), and significance values (p) calculated based on path analysis are shown in Table 4. When the effect of community-centered economy on community participation is examined (β: 0.40; t: 7.05; p: 0.00), it is possible to say that there is a significant and positive effect. The impact of community-centered economies on support for tourism (β = 0.66; t = 16.76; p = 0.00) demonstrates a significant and positive influence. In addition, analysis of the effect of support for tourism on community participation (β = 0.43; t = 6.90; p = 0.00) revealed a significant and positive relationship. The mediation effect, one of the primary hypotheses of the study, indicates that support for tourism serves as a mediating factor in the connection between community-centered economies and community participation (β = 0.28, t = 6.22, p = 0.00). In addition, the R2 value for the effect of the community-centered economy on community participation was determined to be 0.57. This revealed the power of the independent variable on the dependent variable at a rate of 57%. Likewise, it is also seen that the power of community-centered economy on support for tourism is explained with a rate of 43%.

Table 4. Model Pathways and Effect Levels

Direct Impact	β	S.S.	t	p	R²
CCE ⟶ CP	0.40	0.05	7.05	0.00	0.57
CCE ⟶ SFT	0.66	0.03	16.76	0.00	0.43
SFT ⟶ CP	0.43	0.06	6.90	0.00	
Indirect Impact					
CCE ⟶ SFT ⟶ CP	0.28	0.04	6.22	0.00	

Conclusion and Recommendations

The aim of this study is to examine the mediating role of Bergama's local people's support for tourism between their participation in tourism management and a community-centered economy. Furthermore, this study sought to determine the extent of support for the tourism industry. According to data from the Ministry of Culture and Tourism (2022), 337,855 people visited the Asclepion, Acropolis, and Basilica ruins in Bergama in 2022, and 27,888 people visited the museum. Cultural heritage sites constitute touristic assets in Bergama. The success of tourism in destinations increases with the support and participation of the local people in tourism. The participation of local people in tourism planning and decision-making is time-consuming. For the participation of local people, it is very important not only to initiate the participation process, but also to ensure the continuity of the process. Therefore, tourism, language, and hospitality training should be provided, conflicts of interest that may arise should be prevented, and employment opportunities in tourism should be developed for the continuation of the process.

This study presents important findings on the protection of Bergama's cultural heritage and the economic and social impact of tourism. This has implications for academia, local governments, and policymakers. The contribution of tourism to the local economy and promotion of community participation have important implications for the development of sustainable tourism policies. The perceived benefits of tourism are considerable, and the economic dimension is a key factor prompting local residents to endorse and actively participate in the industry. Tourism management relies significantly on local involvement, making it a crucial consideration for the development and success of the sector. Numerous locations employ techniques, such as education and capacity development, openness, accountability, and collaboration, to involve native inhabitants in the tourism sector. Community-based tourism and destination management organizations dedicated to local residents play a significant role in this process. The importance of local people's participation in tourism is that it provides benefits such as the protection of cultural and natural heritage, economic benefits, fair distribution, and community participation. The results of this study confirm that tourism income depends on the participation and support of local people in tourism management. An increase in tourism income will increase the support and participation of local people in tourism. Local people with a high level of support for tourism will also increase their degree of participation. Therefore, the participation of local people is significantly related to the community-centered economy, and support for tourism plays a strong mediating role in this relationship.

Cultural tourism in cultural areas plays a critical role in diversifying cultural tourism and extending it to 12 months. In addition to its economic contributions, cultural tourism provides social and environmental benefits that enhance the living standards and well-being of local communities. Moreover, cultural tourism promotes social inclusion and contributes to the preservation of cultural heritage. Therefore,

cultural tourism strategies should be prioritized in the long-term tourism planning of destinations. For future research, different variables can be added to the model, and it would also be appropriate to replicate this study in other UNESCO World Heritage List destinations or destinations with archaeological sites in order to conduct a comparative analysis.

The first suggestion to be put forward about this study is to make the participation of local people in tourism permanent. Local people should be made aware of the issue and tourism employment opportunities should be developed to continue the process. This participation is essential because it brings benefits such as cultural and natural heritage protection, economic benefits, fair distribution, and community participation. Another suggestion is to create community-centered economic awareness. In this context, it is important to ensure the participation of local people both in terms of management and support. Thus, a tourism economy in which local people also contribute can be carried out sustainably and a high increase in tourism revenues can occur. The last suggestion is related to social and environmental benefits that increase the living standards and welfare of local communities in addition to economic contributions. Accordingly, the people who participate in tourism in managerial and support positions are included in the process in long-term planning and contribute to the protection of cultural heritage. Local people who become aware of these processes can consciously realize both their living standards and their contributions to the country's economy. Therefore, the involvement of local people in tourism-related processes can strengthen both the living standards in the region and the country's tourism economy.

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Research Article

From Soviet Symbols to Digital Realities: Exploring Russian Cultural Hegemony in 35 MM 🔗

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Abstract

With globalization, countries have begun to prioritize economic and soft power alongside military strength in their security strategies. Following the global shift in power after 1990, the Russian Federation, facing a historical turning point, required reorganization and a new approach to secure its role in the emerging international system. Digital games, a significant aspect of popular culture, play a role in ideological and political meaning-making, reflecting real-life dynamics. Games with narratives can construct ideological worlds, embedding and communicating myths and representations to players. In this context, analyzing the Russian-developed game 35 MM provides insight into Russia's strategy of using soft power to extend its cultural influence while maintaining regional interests. This study aims to uncover the cultural codes that reflect Russia's effort to promote its global presence through digital games without abandoning regionalism. By interpreting 35 MM through a post-Soviet lens, the study explores the underlying symbols and boundaries of this new hegemonic and ideological strategy. The findings reveal that video games have the potential to be powerful tools for countries to disseminate cultural hegemony. Russia is actively leveraging this potential by collaborating with game developers to extend its cultural influence to younger generations.

Keywords: Post-Soviet Russia, Hegemony, Globalization, Soft Power.

JEL Codes: Z1, Z10

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Introduction

Digital games not only drive a larger economy, but also have a more active cultural production and distribution potential thanks to their power of cultural hegemony. This power also plays an important role in shaping popular culture and increasing its global influence. Newzoo's Global Games Market Report found that by 2020, one in three people worldwide will play digital games. Similarly, the digital games industry has become a fast-growing global economy. In 2020, the global games market will generate $159.3 billion. About $78.4 billion of this revenue, or almost half of the global games market, was generated in the Asia-Pacific region. Eastern Europe, including the Russian Federation, accounted for $4.2 billion, or 2% of the market. According to this data, Russia has the most promising games market both regionally and globally (Newzoo, 2014). The main reason for this is the Russian Federation's investment and support of digital technologies after the Soviet Union. In fact, the Russian Federation is the first country to recognise eSports as an official sport and to establish the official eSports federation (Russian eSports Federation [RESF]). In this context, it is crucial for our research to examine the support and investment provided by the Russian Federation to participate in the global gaming market and its impact on shaping culture.

The aim of this study is to investigate how Russia, which, especially after the Soviet Union, has preferred to use capitalism by redefining it within its own structure rather than being anti-capitalist, and which aims to increase its influence on the global society through cultural hegemonic tools, while not abandoning the use of military force, aims to achieve this goal through digital games, which have a new and high potential compared to other sources of cultural hegemony. This research aims to reveal the details of this choice by focusing on Russia's cultural hegemony strategies in the axis of digital games and examining their impact on culture. In this context, the study employs a case study approach to reveal the processes of Russia's ideological dissemination and cultural persuasion by analysing the games produced by independent Russian developers and large companies. Through the case analysis of the game 35 MM, developed by an independent game developer directly supported by Russia, this research also delves into the background of Russia's cultural hegemony in the post-Soviet era.

Post-Soviet Hegemony as a Different Integration Model

States, which have a new understanding of security with globalization, regulate their international security plans not only in political and military fields but also in other fields such as economy, technology, culture, climate and society. As a result of this

transformation, in addition to the concept of military power, the concepts of economic and cultural hegemony also come to the fore. Likewise, although Russia has been using hard power instruments due to its vast geographical location since Tsarist Russia and the USSR, it has now started to use cultural hegemony instruments as well. As Hall stated: "What hegemony implies is that the dominance of particular entities is achieved not by ideological coercion but by cultural leadership" (1999).

Academics and politicians who call for Russia to use its own cultural hegemonic power to defend its national interests against the hegemony of the Western world (Kosachev, 2012; Medvedev, 2012) argue that Russia's goal is highly motivated to protect its national interests, including its cultural hegemonic power. The current international crisis over Ukraine is consistent with this approach: Ukraine is seen as a 'battlefield' where Russian and Western hegemony clash (Kosachev, 2012). Therefore, the discourse of cultural hegemony has become increasingly important in Russia (Lavrov, 2014).

Therefore, the transition from a socialist system based on central planning to a market economy accelerated during the Putin era (Kiseleva, 2015). The Russian economy gained momentum thanks to the reforms implemented by Putin, who came to power after the newly established Russia experienced serious economic crises and became increasingly poor (Putin, 2012; Kosachev, 2012). Putin steered the economy through reforms in many sectors and took steps on a global scale. All these initiatives by Moscow are seen by the international community as important steps towards Russia's re-emergence as a world superpower, as it was during the Soviet Union. In line with this goal, Russia's announced foreign policy objectives include spreading the Russian language and culture, strengthening the Russian diaspora around the world and preventing discrimination against Russian goods, services and investments (Ministry of Foreign Affairs of the Russian Federation, 2013).

Digital Games, Global Games Market and the Russian Federation

The employment of cultural hegemony in the framework of Russia's globalization plan can help explain why societies, accustomed to hegemonic American-style communication in the digital games industry, which is the leading platform among others, have swiftly adopted Russian games. Digital games, which are a considerable part of popular culture, bear the traces of real life due to their role in the production of ideological and political meaning (Valeriano & Habel, 2016; Goodfellow, 2015). For example, Höglund concludes that the games he analyses in his article turn the Middle East into a perpetual battlefield and, through both marketing

strategies and game semiotics, enroll the player as a soldier willing to fight in virtual warfare and even support the ideology that functions as the political justification for the games. Lemke (2020) has argued that the ability of many transmedia narratives, such as digital games, to continue to present themselves to us in many guises, on many sites and over long periods of time may make them a more powerful tool than previous media for shaping people's views of what is natural in the social world. On the other hand, Abrudan and Prundaru (2009) focus in their article on the relationship between social representations in games, society and reality and the way they are interconnected. In this context, it can be suggested that digital games with a story are capable of building a meaning within the framework of their own ideology by constructing and repeating various representations along with myths and by communicating them to the player.

Computer games offer products in various categories to popular culture by creating icons (Mario, Pacman, etc.), (Montoro, 2021). Furthermore, a role-playing culture is formed by producing various movies, animations, and cartoons based on the stories of computer games (e.g., Mortal Kombat and Lara Croft), (Rahman, Wing-Sun and Cheung, 2012). In addition, it is possible to spread cultural hegemony through digital games with controlled content (Kukkola, 2020). In particular, reaching the younger generation, which is the most effective audience for spreading ideologies, can be achieved by using the potential of digital games (Valeriano & Habel, 2016; Kaya, 2019). The influential role of computer games in cultural production paves the way for their use as a means of cultural hegemony.

For these reasons, there are many Russian and foreign companies operating in the field of game development in Russia. Wargaming, Gaijin, and Mail.ru are some of the giant Russian companies. Especially the game "World of Tanks", developed by Wargaming, is considered as the most successful game made in the territory of the former Soviet Union. As of 2021, the game has more than 160 million registered users (World of Tanks Player Statistics, 2021). Unlike equivalent digital games that propagandise for American hegemony, neither of the two games downplayed the presence of the Soviet Union in the Second World War (Valeriano & Habel, 2016; Tyushka, 2019). On the contrary, these games positioned the Allied and Axis Powers as the Soviet Union and Nazi Germany from the beginning. With such contents, the Russian Federation attempts to overcome the world's perception about the Western military superiority (led by the US) in terms of structure (Brooks and Wohlforth, 2008). In this period, especially when the world has begun to overcome the Western hegemony regarding politics, economics as well as culture and entered the post-American stage (Zakaria, 2008; Tilly, 2017), Russia aims to fill the place

of the US and the West by keeping the ideologies about the Soviet Union alive. While Russia actively seeks to expand its presence in global markets and participate in global institutions, it also tries to transform these institutions in its favor (Sancaktar, 2011). Russia has endeavoured to promote 'appropriate' messages in games that directly recognise the gaming industry as a valuable domestic industry from an economic and technological point of view, without stifling it (Peterson, 2005). This was not reflected in the roundtable report in 2010 (Roundtable in State Duma, 2010) or the meeting in 2014 (Newzoo, 2014; Galyonkin, 2015), but in the wider public opinion on games. At this point, while politicians recognise the importance of digital games as new media (Gavra & Bykova, 2020) for technological progress and the spread of innovation, they are reluctant to allow the uncontrolled production and distribution of video games because of their ability to spread ideological messages that are incompatible with the messages the government wants young people to receive (Goodfellow, 2015). The recommendations presented here are broadly in line with the Putin administration's efforts to fund and improve access to technology (Goodfellow, 2015; Sergunin & Karabeshkin, 2015).

Methodology

In this study, criterion sampling was employed as the primary sampling method, in conjunction with a case study approach to methodologically frame the analysis. Criterion sampling, one of the purposive sampling techniques, involves the selection of all cases that meet predefined criteria, which is particularly useful when paired with case study analysis to focus on a specific instance that exemplifies certain significant characteristics. This method allows for an in-depth examination of the selected case—in this instance, the game 35 MM—to explore its unique features in alignment with the research objectives (Yıldırım & Şimşek, 2018). Unlike random sampling, criterion sampling is more targeted, making it a suitable approach for qualitative research and case study methodologies, which aim to derive detailed insights from a carefully selected case that reflects the study's conceptual framework.

The criteria used in criterion sampling can be established by the researcher based on the aims of the study or can be derived from a pre-existing set of standards or frameworks. This flexibility allows the researcher to tailor the sampling process to suit the research context, ensuring that only cases relevant to the phenomenon under investigation are included (Yıldırım & Şimşek, 2018). For instance, a researcher might choose to focus on individuals or organizations that have achieved a certain level of expertise or experience in a field, or on specific instances of a phenomenon that exhibit key characte-

ristics important for analysis.

In this context, the game 35 MM serves as the sample for the study. This game was selected because it fulfills several criteria central to the research objectives. Specifically, 35 MM was developed by an independent game developer, which is relevant for examining the unique production and narrative characteristics of independently produced games. Additionally, the game was originally marketed in two languages—English and Russian—demonstrating its intent for international reach and cross-cultural communication. Despite being a product of the independent gaming sector, its considerable global impact provides a rich case for analyzing its ability to resonate with diverse audiences.

The selection of this game also reveals certain limitations. While 35 MM offers unique insights, its status as an indie game may limit the generalizability of the findings to larger, commercially-driven game productions. Furthermore, its bilingual marketing strategy may introduce nuances related to language, culture, and reception that may not be present in other indie games with more localized or limited distribution. Nevertheless, the deliberate selection of this game allows for a focused and detailed exploration of how indie games can shape narratives and player experiences on a global scale.

To frame the study within a broader context, we apply the production of culture framework (Deuze & Allen, 2007), which examines the role of professionals in cultural industries across five key domains: (I) technology, (II) laws and regulations, (III) industry structure, (IV) occupational careers, and (V) markets. (Deuze & Allen, 2007; Martin & Deuze, 2009; Peterson, 1990; Peterson & Anand, 2004). Through this lens, we seek to understand how indie games like 35 MM contribute to and reflect broader cultural narratives and hegemonic strategies, particularly in the context of Russian cultural codes

This study attempted to make an interpretation through the game 35 MM, supported directly by Russia, in order to take a closer look at how the high potential of digital games is used in hegemonic strategies. Russian cultural codes can be found in the game when considering concepts such as gameplay perception, gameplay behavior, ideological meaning production, and cultural signs. As the game 35 MM was developed as a persuasive game, it was addressed as a myth in this study, which attempts to reveal which signifiers about Russia are brought to the fore in the context of reconstruction of memory. Barthes (2014) defines the myth as a "second-order semiological system, in that it is constructed from a semiological chain, which existed before it". He focuses on the meaning of the sign, which is explicit, is known to all, and has been agreed upon. Connotation, which is the second-order of signification, refers to the meaning of the sign emerging within

the framework of the individual's own emotions, socio-cultural environments, and perceptions (Fiske, 2017). Denotation indicates "what" is shown in the photographs. However, connotation emphasizes "how to make sense" of them (Barthes, 2014). Considering these concepts, this research grounds the question "What is seen in visuals?" for denotation and "What is represented? / How is it represented?" for connotation.

In line with this, the research questions are as follows:

1.   What is seen in the visuals of the game 35 MM?

2.   What is represented in the visuals of the game 35 MM, and how is it represented?

These questions guide our analysis of how 35 MM communicates Russian cultural codes and ideological messages. The data were collected through first-hand gameplay experiences by the researchers in 2020, with attention to visual and narrative elements that align with the study's aims. This approach allows for a focused examination of the game's role in shaping global narratives and player experiences.

Results

Technology

Technology is naturally tied to the nature of video games, both in terms of the innovative use of computer tackle and software in games and in the way technological parameters continually plump near-future game development. This tension is reflected in the work of inventors by an extensively felt need to maintain pace with the rearmost technological innovations, whilst also being challenged to mandate and innovate the uses of those very same technologies in a manner that threatens to make 'old' skills obsolete (Deuze & Allen, 2007). In this context, 35 MM, which emerged as a result of technological developments, is a game that can be played with technologically simple and ordinary hardware. In this context, in order for the game to be played by the player, there is no need for low-medium class system hardware, a small memory space such as 2.86 GB, and no other tools other than hardware such as mouse and keyboard, which are considered necessary for the use of a computer.

35 MM is about events that take place in an unspecified geography of Russia at an unspecified date after a global pandemic emerged in 2014. The game's story is entirely based on the "hero's journey", the survival of the two companions in a post-apocalyptic environment, and the events they experience during their journey from the countryside to the city. When the main story of the 35 MM game is handled through the common narrative scheme of Laurel, the material and colour palettes have been chosen to reflect a post-apocalyptic environment. The colours

are grey and dark, and the game atmosphere is foggy and dirty. In the game, although the number of interacted characters is limited, there are detailed narratives about the background of non-player characters, such as the story of the character we stayed at in the chapter "Overnight". The game, which consists of 17 chapters in total, proceeds linearly, without a time limit and narrator's direction. The player progresses the story through the monologues and dialogues of the characters or by means of the surrounding tools such as letters, postcards, and pictures. Surprise elements (plot twists) have been included in the story that can turn the player into a wrong corner. For example, it is a traumatic surprise for the player to learn that the character who guides us throughout the journey is actually the drunk driver who killed our family. This explains the lonely, defeated, and regretful appearance of the characters throughout the game and provides the harmony between the plot and the character. In the last sequence of the play, the main character fulfills his purpose and manages to find peace by returning to his home.

In terms of gameplay mechanics, the game is based on solving small puzzles and overcoming obstacles. The entire game is based on exploring and collecting items, highlighting the visual and auditory elements in the game. There are also strong messages in the game about the roots of Russia in the post-Soviet Period, the destructiveness of human nature in a crisis environment, and the importance of the past for people.

Law and Regulations

In the digital interactive entertainment industry, the publishers of a game product, who mandate the terms of power over IP, control the maturity of the value of a game product. When an inventor works for a company and creates means for a game, the development company fairly inherits the product of the work under work- for- hire agreements. When an inventor is contracted for freelance work, educated development companies regularly include clauses that transfer control of the IP to the constricting development company (Martin & Deuze, 2009). Microsoft released free software (XNA Game Studio Express 6) in August 2006 that enables players to produce their own games for the Xbox 360 from scrape. A crucial consideration in this significant aspect of game work is the publishers' control of intellectual property rights in this co-creative process – as end- user license agreements (EULA) tend to claim exclusive power over whatever gamers or game workers contribute to the evolving game product. In some cases, similar as Counter-Strike (where a gamer- created mod for Valve's Half Life went on to come a hugely successful separate marketable product), the publishing company legitimizes the mod work by hiring the modders, using authority over the

original game as an intellectual property to secure the rights to consumer- created content (Castronova, 2005).

The touchstone for the first official views on video games was the round table on 'The role of education and the computer game industry in the formation of values and patriotic education of young people' held in February 2010 (Goodfellow, 2015). In the report of the meeting, the Chairman of the Youth Committee stated that 'the task of the state should be to ensure the development of computer games by young people and at the same time protect the moral and ethical standards of our society, strengthen and promote traditional values' (Roundtable in State Duma, 2010). Furthermore, Russia was the first country to recognize esports as an official sport and to establish the official esports federation (Russian eSports Federation [RESF]). However, Russia-based major game companies are moving their headquarters to different countries to benefit from the facilities in tax reduction, marketing, and consolidation, which poses a danger to Russia's digital game development activities. For instance, the Warthunder developer, headquartered in Russia, moved Gaijin's development centers outside the country. The Russian Federation has introduced regulations and incentives related to the gaming industry to prevent such situations. The roundtable (Roundtable in State Duma, 2010) discussed various topics such as "vision and innovation" in both the international and Russian gaming markets, "local use of innovative technologies to create patriotic-themed computer games", "the influence of computer games on the philosophical views that young people can develop", and the possibility of providing tax incentives to the Russian software industry (Goodfellow, 2015). Other examples of these incentives include the 'resource support package', which includes incentives for crowdsourcing, and the grants awarded by the Russian Presidential Executive Office in March 2014 (Newzoo, 2014). However, RADIT, which was established in 2010, has not carried out any activities. In addition to the regulations and financial benefits to encourage the growth of the domestic game industry, The Russian Federation steered the developers in the preparation of game content. The roundtable (Roundtable in State Duma, 2010) participants recommended that the interactive technology industry should be rolled into the 'Electronic Russia' program, in order to better support the production and distribution of games that promote patriotism and a healthy life (Goodfellow, 2015). After that duma, the conference, organized by the Ministry of Communications and Mass Media of the Russian Federation in 2014 and attended by major game developers such as Mail.ru Group, 1C-SoftClub, and Wargaming, is of an essential example of these directions. It was decided during this conference that game creators should develop "patriotic"

games (Newzoo Games Market Research, 2020). It is noteworthy that, after this date, Wargaming launched war simulations - with a patriotic subtext - such as World of Warplanes in the first half of 2014 and World of Warship in 2015. On November 10, 2016, the "Expert Council of Game Industry (ECGI)" was announced. The Council was established by Russian video game developers and companies to support the games and eSports markets in the CIS countries and attract new investors. Moreover, it also aims to conduct analytical research, establish activities related to the recognition of the national game industry by the international game industry and regulate issues regarding video game developers' cooperation with government agencies. The council's experts include representatives of well-known companies such as Wargaming, Nekki, Gaijin Entertainment, Nival, Riot Games CIS, and Mail.ru Group (E-Sport Conferace Website). Considering that national and patriotic symbols are used as cultural hegemony established by soft power (Bolin & Miazhevich, 2018), Russia's policy in this direction is revealed.

Russia's regulations for independent game developers and the digital game industry have been shaped by cultural hegemony and national interests. Indie games such as 35MM are evaluated within these regulations and legal frameworks. Russia sees the digital gaming industry not only as an economic opportunity, but also as a means of instilling national and ideological values in younger generations. In this context, game developers may face both incentives and content restrictions.

Industry and Organizational Structure

The greater games industry is structured in a manner that to some extent strictly prohibits independent game development. The titles that draw the most profit, similar as certified sports games (Madden NFL) and big budget first- person shooters (Halo), bear a position of specialized development that makes the independent backing and development of similar ambitious titles grounded off on an original idea virtually insolvable (Martin & Deuze, 2009). The organizational structure naturally depends on this. But for indie games and game developers this is not the case. By using the possibilities of digital technologies, indie game developers try to get involved in the industry with a small number of single organization schemes.

Soviet Russia, which adopted the pro-Western attitude of Boris Yeltsin following the Cold War, followed a more selective approach to globalization after the 1990s by considering different priorities and strategies and trying to integrate Russia with Western institutions (Tsygankov, 2013). There are soft power

elements with various strategies in this independent game of Russia, which is progressing within the scope of becoming a global power. Sub-events in the game follow each other chronologically in line with the causality principle. The storyline proceeds in a discontinuous linear line. The game starts in a wooden shelter reminiscent of old Russian houses in the countryside and continues towards the city streets where there are large and spacious buildings.

Figure 1. Storyline of 35 MM Game
References: (Software, 2016)

It can be argued that the journey which includes the literal meaning and can be interpreted as a transition from traditional to modern, contains a connotation referring to post-Soviet Russia's being innovative and technology-oriented. In the game, specific symbols are used as products to create hegemony and ideology aiming at symbolic constructions of societies and boundaries. Commercial and cultural elements such as Russian vodka, Matryoshka, sickle and hammer, the ballet Swan Lake, Soviet-era metro stations, Lada-branded car are carefully and comprehensively modelled as replicas of their real-life representations.

Nevertheless, some visuals stand out in the game as an indication of the struggle of the working-class, which are one of the important symbols of the struggle for socialism. The subtext of the photograph of a worker working in the field, posing with a sickle, conveys the message that communism is still an area of struggle, and, even if integrated into the capitalist system, the contributions of the workers in the historical process are not forgotten.

Symbols are considered as products to create hegemony and ideology aiming at symbolic constructions of societies and borders. The coercive geographical structure and military power of the Soviet regime creates a new symbolic universe.

Figure 2. Matryoshka, Wall Carpet, Lada and The Ballet Toy Which Plays Swan Lake
References: (Software, 2016)

One can maintain that the culturally dominant symbolic relations such as solidarity that exist in the understanding of communism are similarly reconstructed today through semiotic practices and image production using the photographs of a building with stars and a worker.

Due to the permeable nature of symbols, the stages of transition from an orthodox Tsarist regime to a communist society and later adoption of a capitalist structure are expected to be interpreted and adopted by individuals in their own meaning universe through the game. The game's progression is much more designed from the countryside to the city. The linear progression of the game, from the countryside to the city, and the rail-based journey contain messages about the Trans-Siberian railway line built in the Soviet era and the Siberian countryside, which was the lifeblood of the Soviet aristocracy and economy.
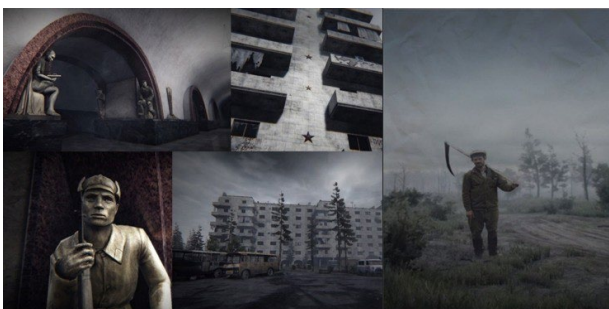
Figure 3. Soviet Era Symbols at The 35 MM Game
References: (Software, 2016)

For instance, during the game, when the character travels from the countryside to the city by train, there are still farmers working in the Russian countryside, although it is post-apocalyptic. The communication language developed via symbols through architec-

tural structures is affected by culture, social formations, beliefs, and lifestyles (Erarslan, 2014).

One of the most vital messages in the game is in the form of graffiti. The English word "Revolution" is converted into "Evolution" by removing the letter "R" by Putin. Considering that this graffiti, featuring Russian President Vladimir Putin, is located in a communist party building modelled in the game. This clever manipulation of the word reflects Putin's political narrative of evolving Russia from its Soviet past while maintaining its ideological foundations. The subtle shift from 'Revolution' to 'Evolution' implies that the ideals of the Bolshevik revolution are not just a part of history, but a natural progression ingrained in Russian identity and governance under Putin's leadership.

Figure 4. Vladimir Putin at the 35 MM Games
References: (Software, 2016)

The message that the Bolshevik revolution has become a natural feature of the Russian people passed down from generation to generation. And this message is conveyed through the relationship between the gameplay, space, and meaning. Indeed, evolution is literally defined as the transmission of genetic traits to the offspring, the selection and reproduction of these offspring by positive or negative natural selection processes, and their becoming dominant in certain living populations. In this context, the player receives the message that the Soviet Union is not only seen as an ideology or culture but also as a natural feature that has been disseminated by Putin and become dominant throughout the society. This message can be interpreted as a "reference to the nostalgia for the Soviet Union and the return policies" that the Russian Federation implicitly applies in domestic politics, despite the impression in foreign policy that the Russian Federation is moving away from the Soviet Union. Russia, which attaches great importance to the game 35 MM and has achieved great success in the world gaming market, prefers soft power sources with its desire to be a global power and goes beyond its boundaries by devising a new strategy that includes its traditional local cul-

ture. As Sancaktar (2011) emphasized Russia, while trying to expand its presence in global markets and join international institutions, it has also tried to transform these institutions in its favor.

Occupational Careers

Industry produces culture and culture produces industry. For example, development studios make games which, like Doom or Mario Bros., become a recognized part of global popular culture (Negus, 1998). According to Deuze and Allen (2007) careers in post-industrial cultural fields such as gamework tend not to follow a neatly structured, seniority-based and long-term route. Gamework is much more random, sporadic and messy –a type of work and a kind of career that favors the young, the unattached and the male. De Peuter and Dyer- Witheford signal three particular types at work on the "dark side" of gamework passionate pay slaves, precarious global inventors (as game-workers are decreasingly employed through worldwide outsourcing practices) and free networked labor (handed by modding and fan communities).

Independent game developers can develop games that are famous worldwide and have reached very large sales figures without the support of large companies. Minecraft, developed by Marcus "Notch" Persson and selling 238 million copies in April 2021 (Sirani, 2023), is an example of a successful independent game. Minecraft was initially developed by Marcus Persson alone, until he had enough money to hire more people to help him develop the game (Rodriguez, 2022). Persson later founded a company called Mojang. The success of Minecraft was so good that Notch sold Mojang to Microsoft for $2.5 billion in cash. This makes him the richest independent game developer (Rodriguez, 2022). On the other hand, since part of the subject of the article is Russia, it is necessary to mention the most successful Russian independent game developer in history, Alexey Leonidovich Pajitnov and his video game Tetris that brought this success. Pajitnov developed the world-famous video game Tetris in 1984 while working as a computer engineer at the Academy of Sciences of the Soviet Union (Schell, 2017). Tetris is a game that has appeared on many platforms and has sold more than 520 million copies (Sirani, 2023). Tetris is perhaps one of the most unforgettable games in the history of gaming.

Sergey Noskov is the developer of the 35 MM game selected as the sample in this study. An independent Russian game developer, Noskov has developed nearly ten independent games since 2012, such as the 35 MM, The Light, 7th Sector, Train, and has played a role in the development of many games such as 'Paws and Soul' and 'The Uncertain Part:1'. Noskov mostly uses linear and atmospheric gameplay elements in his games. Although most of the games

he has designed and published are for PC, his 2021 game In The Rays of the Light was released with Playstation 4 and 5 console support. Noskov also runs a community called "INDIE GAME | 35MM, The Light, 7th Sector, Train" with 3100 members.

Markets

According to Deuze and Allen (2007) "digital games are played by just about anyone – particularly by today's youth who practically grew up with a Gameboy in their hands, a multimedia PC at home and at school, and a PlayStation in their bedroom. One particular effect this may have is on the characteristics, attitudes and beliefs of young professionals, newcomers, and recent graduates who are entering the media workforce from the start of the 21st century".

In this context, Russia, which is one of the countries that is inevitable to improve its position in the global gaming market (Table.1), increased its investments and technological support after the Soviet Union (Newzoo Analytics Report, 2020; Allcorrectgames Russian Games Market Report, 2020). The economic success of internationally recognised domestic companies such as Wargaming, 1C-Softclub, Gaijin and Mail.ru clearly attracts the financial interest of the Russian authorities (Goodfellow, 2015). But at the same time, these companies also represent a strong potential counter to the huge influence of global gaming companies in Russia. The reach and popularity of large domestic companies is seen as a ready access point to the young population that Russian political figures seek to control (Brandist, 2015; Romashko, 2018).

Today, with the development, production, and sales of digital games, the gaming industry has become a rapidly growing global economy. As of 2019, there were more than 2.5 billion players all over the world. It is estimated that this number will exceed 3 billion by 2023 (Newzoo, 2020). It can be noted that such a large mass forms the center of a robust economic system. This ecosystem comprises players, game developers and publishers, communication, private finance and advertising tools, platforms for digital games (Twitch, YouTube, and platforms for new generation cyber tournaments), institutions providing advanced training in the field of game development, electronics manufacturers (e.g. Intel, Nvidia, etc.), and internet companies that have all the resources to find promising solutions to the digital games market (Mail.ru, Google etc.). As of 2020, the global games market grew by 9.3% compared to the previous year and generated $159.3 billion. Analysts predict that, in 2021, the global games market volume will increase by 18%, approximately $170-180 billion. "Computer gaming industry 2020" prepared by Higher School of Economics (HSE-Russia). Report provides some really important data like: In 2019, the Russian gaming market grew to $2 billion (RUB 129.5

billion). The growth rate of the value of the e-sports market in Russia is one of the highest in the world - 20% per year compared to the global 18%. The value of the Russian e-sports market in 2019 amounted to 2.6 - 3.9 billion rubles ($40-60 million). As of 2023, the Russian video game market, which includes both mainstream and indie games, is estimated to reach a value of approximately 167 billion rubles by the end of the year (Allcorrectgames Russian Games Market Report, 2020).

Table 1. Global Games Market

GLOBAL GAMES MARKET 2020 Total: $159.3 Billion					
Personal Computer 36.9 Billion USD		Game Console 45.2 Billion USD		Smartphone and Tablet 77.3 Billion USD	
Downloaded/ Boxed PC Games	33.9 Billion USD	45.2 Billion USD		Smartphone Games	63.6 Billion USD
Browser PC Games	3.0 Billion USD			Tablet Games	13.7 Billion USD

References: (Newzoo Global Games Market Report, 2020)

Discussion and Conclusion

Cultural effects in 2000 and public diplomacy in 2008 stand out in the texts that determine the principles and priorities of Russia's foreign policy. Therefore, it is true to argue that Russia, which is not willing to stay out of the system in global competition, considers that being a regional power is a prerequisite for gaining power in the global market. In this new integration model, although it maintains hard elements and hot conflict, Russia's desire to impose its hegemony on the global community by using cultural hegemony elements has pushed Russia to establish warm relations with the former Soviet states. Thus, Russia prefers to use the concepts of anti-capitalist and capitalist together and by redefining them within its own structure.

Discovering the contribution of the western-centered global consumer culture to the economy, the spread of ideological trends and its ability to obtain the consent of individuals to rule societies, Russia has begun to employ digital games. Accordingly, considering that the number of companies developing domestic video games should be increased, it has provided these kinds of companies with support such as tax reductions to enable them to compete in the global market. In this way, Russia has reached an increase of 25% each year in the world digital games market, has developed 10% more than other countries in the global market, and has managed to rank 6th in the world in terms of investments made in this field (Russian Federation Analytical Center). Super-Data and Wargaming (SuperData Website) released a detailed report on the current state of the gaming market in the Commonwealth of the Independent States and its development prospects, showing that mobile gaming segment in the digital games market grew from $372 million in 2017 to $561 million in 2018, with an increase of 51%. Stating that Russian is the third most common language on Steam, the world's largest online game platform, the research also points out that Russia has grown rapidly in this segment. On the other hand, it would not be wrong to say that the most critical example showing that Russia focuses on digital development in competing in the global market and in disseminating its local culture is the Ministry of Digital Development, Communication and Mass Communication, which was established in 2012. Therefore, it can be argued that Russia, which wants to spread its mindset of post-Soviet hegemony as a regional power across the world, as Gramsci puts it, "without establishing a political administration on it, with its cultural and moral management" (Fiori, 2014) has put the strategy of disseminating Russian culture into action by getting players' consent. Thus, the appeal of values is socially constructed and is said to be the result of the 'power politics of identity' and the struggle over ideas that form part of social relations (Kiseleva, 2015: Mattern, 2005; Zahran and Ramos, 2010).

The game 35 MM frequently uses the working class, one of the most important symbols of socialism and revolution, military vehicles belonging to the period when Russia was defined as the most brilliant military power, and symbols such as the red star, which is the symbol of communism. Moreover, symbols like Matryoshka dolls, Soviet-era metro stations, and Lada-branded cars emphasize the connection to Soviet heritage. These symbols are carefully integrated into the game's environment, functioning as tools for constructing cultural hegemony and reinforcing a sense of nostalgia for the Soviet era. Through these semiotic elements, the game not only reconstructs a Soviet past but also communicates contem-

porary ideological struggles between communism and capitalism. When the game is viewed through concepts such as gameplay perception, gameplay behavior, ideological meaning production, cultural and ideological signs, a post-apocalyptic Russia simulation created to reconstruct memory with Soviet codes emerge. While simulation blurs the distinction between the real and the virtual, in line with the uncertainty principle of the postmodern era where it is active (Baudrillard, 2005a), hyper-reality produced with digital games also creates fictional agendas in terms of politics, economics and religion, as well as artificial wars and artificial lives, which gradually replace the real ones. An unreal Russia, which is close to the Union of Soviet Socialist Republics created in the game 35 MM, will be perceived by players as more real than real Russia. As Baudrillard (2005b) puts it: "Simulation reproduced the unoriginal in an unoriginal way!."

Russia can reach out to the masses on which it can continuously impose its ideologies continuously and uninterruptedly with the massively multiplayer games of every genre, which have an enormous number of users. Furthermore, it can also reach regular gamers, who follow the gaming industry as well as accessible and original productions by independent producers. In this context, Russia has transitioned from the period when hegemony was actually established in factories and infrastructure was the determinant (Gramsci, 2014) to a conjuncture where hegemony is established in games and players play a decisive role. In such a period, it is possible to say that Russia aims to expand the hegemony and is willing to spread with simple but strategic steps by using one of the largest industries in the world. However, the structure of the big game industry often makes it difficult for independent developers to compete with big studios producing high-budget games. Despite these structural challenges, indie games such as 35 MM have entered the market with unique production plans utilizing digital technologies. These indie games offer a different approach to storytelling and ideological messaging that contrasts with mainstream commercial games.

When we look at the literature on the use of cultural hegemony in video games, similar results draw attention. (Cohoon, 2021; Lale, 2020). For example, Lale (2020), in his study on South Korea's cultural influence, argues that since the 1997 economic crisis, the Korean government has invested millions of dollars to develop popular culture media, especially television series, music groups and video games. In this context, in order to promote the cultural and content sectors, Korea Culture and Content Agency and Korea Game Industry Agency were founded. The Korean Wave also provided South Korea with significant financial resources in different categories such as animation, publishing, cartoons, characters, games, movies, music and TV series. Economic suc-

cess in one sector has led to improvements in others. For example, the success of the gaming industry has benefited creative industries such as animation, character and graphic design. This study, which deals with cultural hegemony and its impact on video games within the scope of the 'Digital Iran' project, emphasizes the concepts of culture and identity. The project shows how games are grounds for conflict that imprint, counter imprint, and deconstruct hierarchies of power as well as grounds for fostering subjectivity and debate (Cohoon, 2021).

In this study, in which Russia's cultural hegemony is evaluated through digital games, it is seen that the elements in the 35 MM game, which are discussed through 5 themes, serve as tools of cultural production.The journey in 35 MM can be interpreted as both a literal and metaphorical transition from traditional to modern Russia, illustrating post-Soviet Russia's embrace of innovation and technology. The game's environments and symbols, particularly the abandoned industrial landscapes, reflect a society grappling with its Soviet past while navigating a capitalist future. These visual elements highlight the duality of contemporary Russia, blending socialist ideals with modern capitalist realities. In this context, specific symbols within the game, such as the worker wielding a sickle, directly connect to Russia's historical struggle for socialism. This imagery serves as a reminder that, despite the integration into a capitalist system, the contributions of the working class remain significant in the historical narrative. By incorporating such symbols, 35 MM reflects the ongoing ideological tension between communism and capitalism in post-Soviet society. Thus, 35 MM serves not only as a reflection of Russia's technological evolution but also as a medium through which ideological conflicts are symbolically reconstructed. The game highlights both the struggles and advancements of Russian society, allowing for a deeper analysis of how indie games like 35 MM contribute to the symbolic construction of societal boundaries, ideologies, and hegemonies. The research was evaluated through the categories of technology, laws and regulation, industrial and organizational structure, occupational careers, and markets. In this context, it was determined that innovative technologies were used in the game and the content and form of the game were developed in accordance with laws and regulations.

In the industrial and organizational structure theme, it is seen that Russia acts in line with its cultural hegemony to become a global power. Russian vodka, Matryoshka, sickle and hammer, Swan Lake ballet, Soviet-era subway stations, Lada branded cars, workers working in the fields and starred buildings symbolising communism are included as symbols of the elements of hegemony built through cultural production. Looking at the symbols on these cultural products and architectural structures, it is possible

to see that the elements of cultural hegemony are effectively used in the game. On the other hand, it is known that Russia uses digital games to spread its cultural hegemony to the younger generation and takes concrete steps together with game developers. In this framework, symbols of cultural hegemony spread information about lifestyles, social, cultural, political structure and belief system in the international arena.

In terms of occupational career, this game was developed and designed by an independent developer, who is also involved in the development of other games similar to this game and manages a community that includes many of these games. Considering that the game industry has become a global economy, it is clear that the development, production and sale of this game contributes to both financial and cultural marketing. In conclusion, it is possible to say that video games have the potential to be an effective tool for countries to spread their cultural hegemony.

Future studies can examine cultural hegemony strategies in a broader framework by analysing mainstream games produced by major game developers instead of only independent games. In addition, studies comparing cultural hegemony practices in the digital game industry of different countries can be conducted. The ideological effects of games on players can also be investigated through user experience analysis and ethnographic methods. Finally, in addition to digital games, cultural hegemony strategies can be analysed through different media tools such as social media and other digital platforms. Additionally, future research can explore the structural challenges faced by independent developers within the larger gaming industry. By comparing the narrative and ideological strategies of indie games like 35 MM with those of mainstream, big-budget games, researchers can gain a better understanding of how cultural hegemony operates across different segments of the gaming industry.

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Academic Mapping of Digital Marketing and Tourism Marketing: A Bibliometric Analysis doi

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Abstract

As a result of technical improvements, modern marketing strategies are changing, and digitalization is becoming a crucial strategic tool, especially in technologically and environmentally sensitive sectors like tourism. To find current trends, gaps, and conceptual frameworks in the domains of digital marketing and tourism marketing, this study uses bibliometric analysis. The Web of Science and Scopus databases were searched using the keywords "tourism marketing" and "digital marketing" for the years 2020–2024, yielding a total of 656 English-language documents. Using conceptual and thematic structure maps, the study effectively illustrates the main themes and links between these two fields. Popular "motor themes" in the literature, including "sustainable tourism," "digital transformation," and "social media," are highlighted by thematic maps. They also emphasize less-known but intriguing subjects, such "digital literacy" and "digital nomadism." Conceptual structural maps highlight important gaps in the research by illuminating connections between more general theme clusters like digitization, consumer behavior, and experience tourism. Research gaps and possible areas of investigation are concretized by the findings, which make it easier to visualize scholarly trends in the fields of digital marketing and tourism marketing. These findings advance knowledge of the effects of digitization on the travel and tourism industry in both scholarly and real-world settings. This work provides a fresh addition to the literature by employing visualization techniques and carrying out a thorough examination of theme linkages.

Keywords: Digital Marketing, Tourism Marketing, Bibliometric Analysis, R Studio, Biblioshiny.

JEL Codes: L83, M31, Z33

Levent Karadağ / Tuğçe Merve İnak Özberk

Introduction

Technological advancements have consistently shaped marketing practices, with businesses across various sectors seeking to enhance their marketing performance to remain competitive in evolving markets (Perreault et al., 2013). Among these advancements, information and communication technologies (ICT) have played a transformative role, encompassing tools such as computer networks, satellite systems, and online media platforms that streamline the exchange of information between buyers and sellers (Madison & Darnton, 1996). These innovations have significantly reduced the need for intermediaries, enabling businesses to engage directly with their target audiences.

In the tourism sector, which is particularly sensitive to environmental and technological shifts, the adoption of digital tools has become a critical factor in maintaining a competitive edge. For instance, research highlights the strategic importance of electronic distribution channels and online platforms in reaching global audiences and improving customer engagement (Buhalis, 1998; Ma et al., 2003). Recent studies further emphasize the role of social media, dynamic pricing models, and AI-powered personalization in shaping tourism marketing strategies (Kim & Lee, 2021; Zhang et al., 2023). As digital marketing evolves, tourism businesses that fail to integrate these technologies risk falling behind their more innovative competitors.

Given the growing intersection between digital and tourism marketing, this study employs a bibliometric analysis to systematically review the literature on these fields. By categorizing studies published between 2020 and 2024, the research aims to identify key trends, gaps, and conceptual frameworks, offering a comprehensive understanding of how these two disciplines interact. This approach not only provides an updated synthesis of the existing research but also highlights underexplored areas, such as digital literacy and sustainable tourism marketing, which warrant further investigation

Furthermore this study aims to examine the studies that examine tourism marketing and digital marketing together by using the bibliometric analysis method. It is important to categorize the studies that examine tourism marketing and digital marketing together with certain parameters in order to reveal how both concepts are examined.

Moreover this study provides a comprehensive analysis of scientific production and the development of research in the fields of digital marketing and tourism marketing. This study aims to examine research that addresses the concepts of digital marketing and tourism marketing together within the framework of bibliometric analysis, based on data obtained from the WoS and Scopus databases. Notably, there has been a significant increase in research activities in these areas between 2020 and 2024 (Kalia et al., 2022; Madzik et al., 2023; Wahyu et al., 2023; Kozak & Correia, 2024; Chamboko-Mpotaringa & Tichaawa, 2024). This trend reveals that, influenced by the COVID-19 pandemic, the effects of digitalization in the tourism sector have been increasingly studied, and the importance of digital marketing strategies has become even more prominent during this time.

In this context, the current study differs from previous research by taking a holistic approach to examining the impact of post-COVID-19 digitalization on tourism marketing, analyzing research trends and methodological developments in the field. For example, unlike prior studies, it emphasizes not only a specific period but also the rapid development of digital marketing and tourism marketing between 2020 and 2024, and how this process has been influenced by the pandemic. Furthermore, this study provides a broader perspective for future research by deeply exploring the thematic connections between digital marketing and tourism marketing. In this regard, it makes a strategic contribution to the existing literature.

Literature Review

The diversity of research in tourism marketing and digital marketing, and the fact that these topics are still in the focus of researchers' attention, indicate that these fields are highly suitable for bibliometric analysis. Table 1 presents a summary of the studies conducted by various authors in recent years.

Table 1. Summary of Digital Marketing & Tourism Marketing Review Paper by Author

Authors	Subject Area	Covered period	Methods	Number of papers collected	Sources
Kalia et al., (2022)	Digital Tourism Marketing	1987- 2020	Bibliometric Analysis	827 papers	Scopus, Web of Science

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Madzik et al., (2023)	Digital Transformation in Tourism Marketing	2013-2022	Bibliometric Analysis, Topic Modeling (LDA)	3,683 papers	Web of Science, Scopus
Wahyu et al., (2023)	Digital Marketing	2007-2022	Bibliometric Analysis, Visualization (VosViewer)	980 articles	Scopus, Local Sources
Kozak & Correia (2024)	Tourism Marketing	1969-2024	Bibliometric analysis, content analysis, word clouds, social network analysis	9,239 articles	Scopus
Chamboko-Mpotaringa & Tichaawa (2024)	Metaverse/ Digital Transformation in Tourism Marketing	2019-2023	Bibliometric Analysis, Content Analysis	26 articles	Scopus, Web of Science, other prominent scientific databases

Source: Own Elaboration

Kalia et al. (2022) conducted a bibliometric analysis of 827 articles on digital tourism over the last three decades, aiming to provide a comprehensive view of the field. The study highlights new research directions such as the management of smart destinations, the use of the internet as a communication and marketing tool, the role of technology in sustainability, and consumer behavior in the context of digital tourism. The findings reveal limited scholarly interest and collaboration in regions such as Russia and Africa, providing opportunities for future strategies and initiatives for researchers and businesses. This analysis brings an organized perspective to a fragmented literature, revealing the evolution of digital tourism research.

Madzik et al. (2023) examined digital transformation research in the tourism sector between 2013 and 2022. The study analyzed 3,683 articles from Web of Science and Scopus using an innovative machine learning-based "smart literature search" method. The findings revealed eight main topics related to digital transformation in tourism, including city and urban planning, social media, data analytics, sustainable and economic development, technology-based experience and engagement, cultural heritage, digital destination marketing, and smart tourism management. During the COVID-19 pandemic, research has focused more on smart analytics, marketing strategies, and sustainability. Topic modeling analysis using the Latent Dirichlet Allocation (LDA) method revealed hidden topics that may be overlooked by bibliometric methods and provided important insights into the evolution of digital transformation research in tourism.

Wahyu et al. (2023) examined digital marketing research in Indonesia between 2007 and 2022 using bibliometric analysis and visual mapping with VosViewer. In total, 980 articles and 9,504 citations were evaluated, with an 80% increase in the number of publications in 2020. The visual analysis reveals 49 keywords and 7 research clusters, highlighting topics that remain to be explored in the field of digital marketing. The findings highlight unexplored research topics in digital marketing in the Indonesian context, providing a valuable guide for future researchers.

Chamboko-Mpotaringa & Tichaawa (2024) comprehensively examined the effects of the metaverse on tourism marketing. Using bibliometric analysis and content analysis methods, 26 academic articles in this field were evaluated. The study revealed that the use of the metaverse in the tourism sector is still in its infancy and has attracted academic attention, especially since 2023. The study highlights the potential of digital transformation to transform user experiences and marketing strategies in the tourism sector. Furthermore, by analyzing the collaboration networks among researchers, the thematic areas of the metaverse in tourism marketing and future research topics were identified. These findings highlight the changes that the metaverse has brought about in the marketing paradigm and provide strategic recommendations for both practitioners and policymakers. The study makes a significant contribution to the literature on digital transformation and tourism marketing.

Kozak & Correia (2024) examined the academic development of tourism marketing in detail. The study examined 9,239 academic articles published betwe-

en 1969 and 2024 and analyzed the progression of tourism marketing through four waves in the field. Using methods such as bibliometric analysis, content analysis, word clouds, and social network analysis, clusters of topics and the connections between these clusters were revealed. The study reveals that the field of tourism marketing has been in continuous development since the late 1960s, with a significant increase in the number of articles and diversity of topics, especially after the 2000s. The findings show that new topics have been added in each wave, and the literature has become increasingly diversified. In addition, the research provides insights into the future trends in tourism marketing and contributes to the identification of gaps in the literature and the development of new areas of research.

Tourism Marketing

Tourism marketing has become a major research topic and holds a vital place in the country's economy and the expansion of the sector. Tourism is a significant source of income for many countries, as it directly and indirectly creates employment, increases foreign trade revenues, and contributes to the growth of local economies (Geng et al., 2024). Tourism marketing, distinct from other forms of marketing due to the intangible and experience-based nature of its products, involves strategies that aim not only to promote services but also to enhance the attractiveness of destinations. These strategies focus on creating unique and memorable experiences for visitors, aligning with the expectations and needs of target audiences. Unlike traditional marketing, tourism marketing addresses complex decision-making processes by highlighting destination-specific cultural, natural, and historical assets, requiring a nuanced approach to communication and promotion strategies (Chakraborty et al., 2023). Moreover, it encompasses the promotion of intangible and experience-based products, which distinguishes it from other service sector marketing efforts (Gretzel et al., 2015).

Tourism marketing extends beyond the mere promotion of products or services within the sector. It includes developing strategies to enhance destination attractiveness and offer better experiences to visitors (Buhalis, 2000). According to Kozak (2014), tourism marketing involves presenting a destination or touristic product in alignment with the needs and expectations of the target audience, thereby creating value throughout the process.

The tourism sector's marketing system integrates various essential components. These include sales promotions, price analysis, advertisement planning, forecasting customer revenue, understanding consumer needs, and offering a wide range of products. Such elements must be cohesively managed to enhance competitiveness and ensure guest satisfac-

tion in the tourism sector (Kozak, 2014). Technological advancements have further reshaped this landscape, creating new frameworks for promoting and consuming tourism-related information.

The integration of digitalization into tourism marketing has not only intensified competition but also transformed traditional practices. Businesses effectively leveraging digital tools can improve operational efficiency, enhance customer satisfaction, and strengthen their competitive positioning (Imtiaz & Kim, 2019). Internet technologies have become indispensable in marketing activities such as booking, purchasing, and product promotion. Tourism businesses extensively utilize Internet-based marketing strategies, a trend expected to grow in the future (Law et al., 2007).

Tourism marketing has increasingly evolved into a field where digital marketing communication tools play a central role, driven by the rapid advancement of digital technology and the widespread use of the internet. As the internet becomes more integrated into daily life, it has fundamentally transformed how businesses in the tourism sector interact with potential customers, market their products, and manage customer relationships. Digital marketing tools, such as social media platforms, search engine optimization (SEO), email marketing, and online advertising, have become indispensable for tourism businesses looking to enhance their visibility, reach broader audiences, and engage with customers in real time (Fedorko et al., 2024; Truong et al., 2024).

Digital Marketing

The continuously evolving structure of the Internet and its complex technological infrastructure enable businesses to shift their marketing strategies to digital channels. Digital marketing emerged in the 1990s with the widespread use of the Internet for commercial purposes, and it rapidly grew in the 2000s with the development of Web 2.0 technologies, offering opportunities for two-way communication (Kaplan & Haenlein, 2010). This transformation has found a wide application in tourism marketing, particularly focused on understanding consumer expectations and personalizing experiences (Gretzel et al., 2015).

Digital marketing is also referred to by various terms such as online marketing, electronic marketing, and web marketing, and it involves conducting marketing activities through electronic devices (Lies, 2019; Fahad & Tran, 2019). The Digital Marketing Institute defines this concept as an integrated, targeted, and measurable communication process carried out through digital technologies, aimed at customer acquisition and retention (Järvinen, 2016).

Digital marketing is based on inbound marketing, which is a customer-oriented approach (Todor, 2016; Lies, 2019). This strategy enables businesses to interact with their customers in the digital environment.

Various digital tools such as social media, online videos, mobile advertising, email marketing, and blogs allow businesses to connect with consumers anywhere and anytime (Kotler & Armstrong, 2017; Bala & Verma, 2018). The digital platforms used in this process play an important role in developing and managing customer relationships.

The history of digital marketing has gone through different phases under the influence of technological developments. In particular, the establishment of the Direct and Digital Marketing Institute in 1988 was a turning point in the field of digital marketing (Webber, 2013). With the widespread use of the Internet, the development of digital marketing has accelerated. The introduction of the World Wide Web in the early 1990s and the emergence of the first e-commerce platforms enabled businesses to move their marketing activities to the digital environment (Chaffey & Smith, 2022).

The concept of digital marketing was first introduced in the 1990s and gained a new dimension with the rise of major e-commerce platforms such as Amazon and eBay (Singh et al., 2016; Desai & Vidyapeeth, 2019). In 1994, the widespread commercial use of the internet accelerated the development of

basic digital marketing tools such as online advertising and email marketing (Castells, 1996).

In the 2000s, digital marketing became interactive with the development of Web 2.0 technologies. The emergence of social media platforms such as Facebook, Twitter, and YouTube enabled brands to establish a more personal relationship with consumers and led to the development of new strategies such as "viral marketing" (Kaplan & Haenlein, 2010; Ryan, 2016). In this period, the popularization of mobile devices has taken digital marketing to a new dimension.

With the proliferation of mobile technologies and smartphones in the 2010s, digital marketing gained the capacity to reach consumers anytime and anywhere. Big data analytics, personalized marketing, and artificial intelligence applications became the focus of digital marketing during this period (Kartajaya et al., 2019). The power of digital marketing lies in its ability to develop and manage customer relationships through these various digital platforms. In Table 2, it is possible to see the definitions of "digital marketing" in detail.

Table 2. Definition of Digital Marketing

Digital Marketing Definition	Author and Year
Digital marketing is the process by which businesses develop and manage customer relationships through online technologies.	Chaffey et al., (2009)
Digital marketing is the marketing activities carried out to interact with target audiences and increase brand awareness using digital tools.	Ryan (2016)
Digital marketing is a method of communicating marketing messages to targeted audiences using digital technologies.	Frost & Strauss (2016)
Digital marketing is defined as a flexible process where companies work in harmony with customers and partners to create, communicate and deliver value for all stakeholders and develop sustainable partnerships with the support of technology.	Kannan (2017)
Digital marketing is the promotion of products and services to meet customer needs through digital channels and platforms.	Kartajaya et al., (2019)
Digital marketing is defined as the set of activities and practices that aim to manage relationships with target audiences through digital information and communication technologies and electronic devices, using all aspects of an organization's traditional marketing.	Sokolova & Titova (2019)
Digital marketing is a process that allows businesses to optimize their marketing strategies through digital media and platforms.	Kingsnorth (2022)

Source: Own Elaboration

Today, digital marketing is shaped by the integration of technologies such as big data, artificial intelligence, and the Internet of Things (IoT). This enables businesses to run more personalized and effective campaigns. Moreover, digital marketing tools enable organizations to better analyze consumer behavior and flexibly adapt their promotional strategies to the marketing conditions (Ovcharenko et al., 2018).

In this context, digital marketing has the capacity to reach large audiences through both online and offline channels. The continuous and high-quality two-way communication offered by technology allows businesses to engage dynamically with consumers (Sokolova & Titova, 2019; Shpylyk et al., 2021). These features of digital marketing provide businesses with flexibility, speed, and strategic advantage.

Digital marketing is not only a promotional tool but also plays a critical role in the process of optimizing businesses' marketing activities and increasing customer satisfaction. Therefore, adapting digital marketing strategies to constantly evolving technology and changing consumer expectations increases the competitiveness of businesses (Bala & Verma, 2018).

Digitalization in the Tourism Industry

Since the 1980s, technology developments have had a significant impact on the tourism industry, changing how business-consumer interactions are conducted and how information on tourism is distributed and consumed. Particularly with the introduction of the Internet, international travel planning procedures have been redesigned, allowing travel agencies to adopt new information and communication technology. These developments have simplified conventional procedures and made it easier to build a knowledge-based infrastructure (Buhalis & Law, 2008).

According to Dalgın and Karadağ (2013), digitalization has intensified competition in the tourism industry, providing businesses with opportunities to gain a competitive edge through the effective use of digital tools. By leveraging digital marketing, enterprises can enhance brand visibility and offer personalized services, thereby meeting evolving consumer expectations. Digital marketing methods are widely utilized across key tourism sub-sectors, including accommodation, travel, food and beverage, and transportation. These methods provide significant advantages, such as real-time access to customer information, the ability to reach broader markets, seamless transaction processes, and the capability to conduct direct promotional activities without intermediaries.

The interactive nature of digital platforms allows businesses to incorporate consumer preferences more effectively into product and service development. Through active participation and two-way communication, consumers influence marketing processes from product design to delivery. This approach enables businesses to align their offerings with market demands while addressing individual needs (Mucuk, 2006). For instance, user-generated content shared on tourism portals provides valuable insights for potential travelers, influencing their travel decisions and shaping demand patterns (Doğan et al., 2018). Furthermore, websites, as a crucial digital marketing tool, create strong first impressions and play a pivotal role in guiding consumers through the decision-making process (Salem, 2017).

In recent years, the widespread adoption of the Internet and social media has further underscored the importance of digital platforms in tourism marketing. In 2023, approximately 65% of the global population had Internet access, with nearly 60% actively using social media (We Are Social, 2023). These figures highlight the growing significance of digital marketing tools such as search engines, email campaigns, multimedia content, and mobile applications in engaging target audiences and enhancing brand visibility.

Digitalization's transformative impact on the tourism sector extends beyond marketing to influence consumer behavior and innovation. By leveraging digital tools, tourism enterprises can foster competitive advantages, strengthen their market position, and shape unique customer experiences. Such practices emphasize the pivotal role of digitalization in driving the evolution of tourism marketing, enabling businesses to thrive in an increasingly competitive environment.

Methodology

Data Analysis Method

An effective method for a thorough analysis of scientific output in a particular field of study is bibliometric analysis, which makes it possible to determine important research trends, fundamental ideas, and academic partnerships. In order to comprehend the evolution of the literature in the domains of digital marketing and tourism marketing, to pinpoint significant themes and patterns in these sectors, and to identify research gaps and possible future research avenues, bibliometric analysis was selected for this study.

Bibliometric analysis has attracted attention as a frequently used method in recent years. It is an important research element in the compilation and categorization of national and international literature and in revealing frequently referenced or perhaps overlooked points related to the fields.

Bibliometric analysis is based on analyzing bibliographic data with statistical methods to measure the production, dissemination, and impact of scientific works. It can be done on the basis of author, article, journal, and subject, or it includes different methods such as citation analysis, number of publications, author collaboration, country of publication, and keyword analysis (Glänzel, 2003).

R Studio allows users to work effectively with complex data sets using the rich statistical and graphical functions offered by the R language. It is also extensible with R libraries, enabling users to meet specific needs in various fields (biostatistics, finance, and social sciences) (Wickham, 2019). At the academic level, R Studio's analytical capabilities and data visualization features accelerate research processes and support data-driven decision-making. In particular, with the adoption of the concept of reproducible research, R Studio helps researchers make their work more transparent and accessible (Peng, 2011). Biblioshiny is an open-source software tool developed in the R language and is used in bibliometrics to review and analyze academic literature. The tool provides a user-friendly web interface for visualization and analysis of bibliometric data. With Biblioshiny, researchers can easily analyze various bibliometric indicators such as publications, citations, and collaborations (Aria & Cuccurullo, 2017). Due to the benefits they provide to researchers, R Studio and its Biblioshiny package were selected for this research.

In the study, the concepts of "tourism marketing" and "digital marketing" were selected as keywords in Scopus and Web of Science databases on October 20, 2024, and scanned for analysis. Some limitations were applied while conducting these scans.

In the Web of Science database, title, abstract, author keywords, and Keywords Plus were included in the "subject" field. In the Scopus database, the code "article title, abstract" was used. In both databases, the search was limited to books, journal articles, book chapters, conference proceedings, and reviews published in English between 2020 and 2024. The decision to focus the study on the period between 2020 and 2024 was made with the intention of specifically addressing a period in which academic production in the fields of digital marketing and tourism marketing rapidly increased following the pandemic. Particularly during this period, the rise of digitalization in industries, influenced by the CO-VID-19 pandemic, has led to the emergence of new research areas and thematic trends in the literature. Therefore, the time frame the study focuses on is a strategic choice to examine the effects of digitalization and the shifts in the literature more comprehensively.

Data Collection Steps

As a result of these filters and limitations, the searches yielded 983 documents in Scopus and 1152 documents in Web of Science. In order to determine the scope of the literature on digital marketing and tourism marketing and to understand its global spread, the articles and other scientific documents were carefully reviewed and used in the bibliometric analysis.

The parameters "title," "abstract," "author keywords," and "keywords plus" in WoS and "article, title," and "abstract" in Scopus were used to filter the analyzed papers. The results of this search were further limited by excluding inappropriate subject areas, publication years (2020–2024), language (English), and document categories (articles, books, book chapters, conference papers, and reviews). 426 papers from Scopus and 496 documents from WoS were subjected to bibliometric analysis. Duplicate studies found in WoS (266 papers) and Scopus were eliminated. Duplicate studies found in WoS (266 papers) and Scopus were eliminated. R Studio's Bibliometrix library was used to combine data from Scopus and WoS. A dataset of 656 different publications obtained from WoS and Scopus was obtained. The 656 documents compiled between 2020 and 2024 were analyzed using R programming and the Bibliometrix and Biblioshiny packages in R Studio.

This approach enabled the identification of common trends, the identification of gaps in the literature, the differentiation of potential research areas, the highlighting of leading countries, sources, and authors, and the clarification of relationships between keywords, the details of which are presented in the findings section.

Figure 1. PRISMA Flow Chart for Bibliometric Analysis
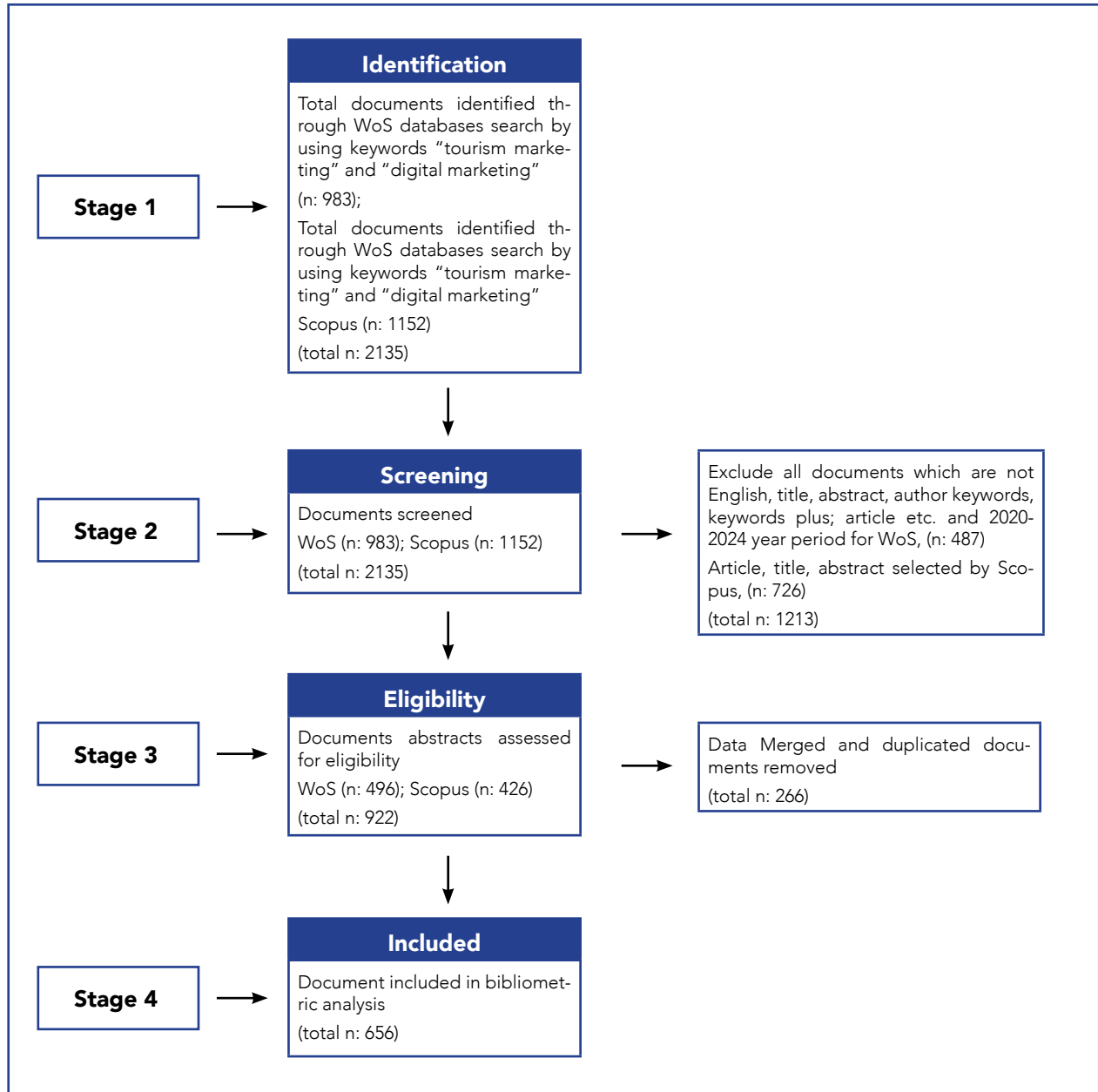
Findings

Table 3 provides a summary of the data obtained with the Bibliometrix and Biblioshiny tools using the R programming language and R-Studio. Between 2020 and 2024, 2084 authors contributed to a total of 656 documents published in Web of Science and Scopus databases. These publications are from 356 different sources (journals, books, etc.). The analysis shows an annual growth rate of 28.13%.

The document types analyzed included 593 articles, 54 early access articles, 4 book chapters, and 3 retracted publications. It was also calculated that an average of 10.37 citations were received for each document. The number of single-author publications was 78, with an average of 3.49 co-authors per document. The keywords used in the study included 2419 different keywords as author keywords (DE)

and 1069 different keywords as keywords plus (ID). These data can be considered an indicator of interdisciplinary collaboration and the rapid growth in academic publishing.

Table 3. Main Information Data

MAIN INFORMATION DATA	
Description	**Results**
Sources (Journals, Books, etc.)	356
Documents	656
Annual Growth Rate %	28.13
Document Average Age	1.54

Average citations per doc	10.37
Keywords Plus (ID)	1069
Author's Keywords (DE)	2419
Authors	2084
Authors of single-authored docs	78
Co-Authors per Doc	3,49
DOCUMENT TYPES	
Article	593
Article; book chapter	4
Article; data paper	1
Article; early access	54
Article; proceedings paper	1
Article; retracted publication	3

Source: Biblioshiny, based on WoS and Scopus dataset

The distribution of studies on digital marketing and tourism marketing between 2020 and 2024 by year is summarized in Figure 2.
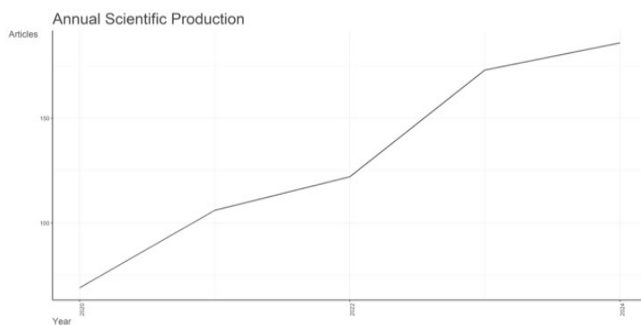
Figure 2. Distribution of Articles by Time

Source: Biblioshiny, based on WoS and Scopus dataset

In 2020, 69 articles were published on digital marketing and tourism marketing, and this number increased to 106 in 2021 and 122 in 2022. By 2023, this number reached 173 articles, while a total of 186 articles were published in 2024. These data reveal that scientific production in the field of digital marketing and tourism marketing shows a continuous upward trend. Articles published in 2024 and 2023 stand out as the highest production periods, accounting for 28.35% and 26.37% of total publications, respectively. 2022 ranked third with 18.59%, followed by 2021 and 2020 with 16.15% and 10.51%, respectively. This trend can be attributed to the increasing impact of digital technologies in the tourism sector and the

more intensive focus on digital marketing strategies, especially in the post-pandemic period. This increase in research outputs clearly reflects the growing academic interest in digitalization and innovative marketing.
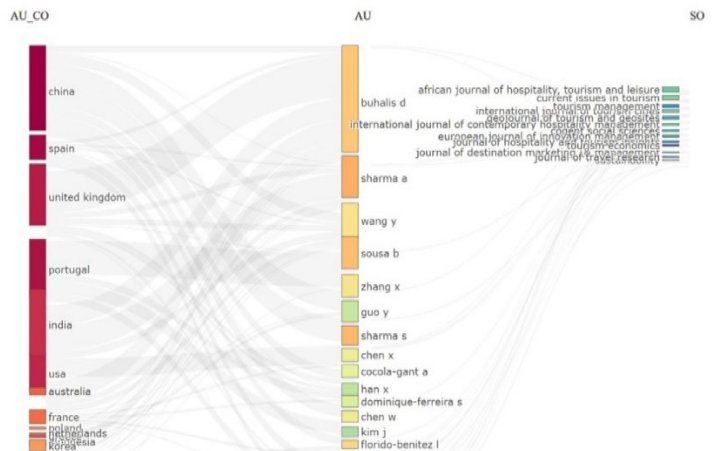
Figure 3. Three-Fields-Plot

Source: Biblioshiny, based on WoS and Scopus dataset

Analyzing the relationships of nations, authors, and publications can provide valuable insights for understanding important discoveries and emerging research trends (Donthu et al., 2021). In this context, Figure 3 presents a three-field analysis visualizing the interactions between the countries to which authors belong (left), the leading authors (middle), and the academic journals in which studies are published (right). The graph shows that authors from countries such as China, the United Kingdom, and Spain stand out with their works published in internationally respected journals on tourism marketing and digital marketing.

For example, Chinese researchers are more likely to publish in journals such as "Journal of Hospitality and Tourism Management" and "International Journal of Contemporary Hospitality Management," while Spanish authors are more likely to publish in journals focusing on tourism and destination marketing. In addition, prominent authors such as Sharma and Buhalis stand out with their contributions in these areas and provide studies that shape the research field. By revealing the links between countries, authors, and academic journals, this analysis provides a valuable tool for understanding the general trends of international collaboration and academic productivity, especially in the fields of tourism marketing and digital marketing.

According to the data in Figure 4, the journals with the highest number of publications in the field of digital marketing and tourism marketing are *Sustainability, Worldwide Hospitality and Tourism Themes,*

Current Issues in Tourism, International Journal of Tourism Cities, and International Journal of Contemporary Hospitality Management.
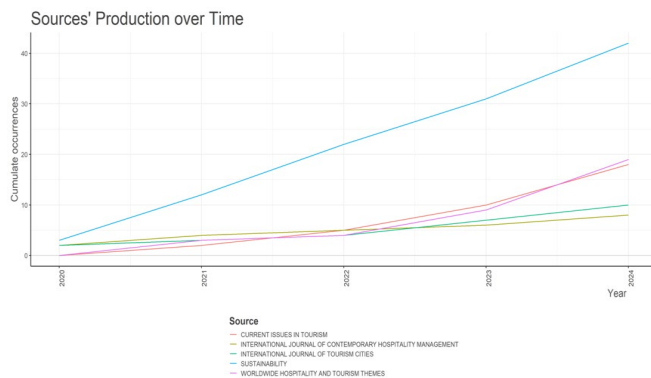
Figure 4. Production Over Time

Figure 5. Most Relevant Authors

Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

When the annual production is analyzed, it is observed that the journal Sustainability published 3 articles in 2020, and this number steadily increased each year, reaching 42 in 2024. The journal Worldwide Hospitality and Tourism Themes did not publish any articles in 2020 but demonstrated a notable rise by publishing 3 articles in 2021, 4 articles in 2022, 9 articles in 2023, and 19 articles in 2024.

Similarly, Current Issues in Tourism did not publish any articles in 2020 but started with 2 articles in 2021, reached 10 articles in 2023, and 18 articles in 2024. While 2 articles were published in the International Journal of Tourism Cities in 2020, this number increased steadily until 2024 and reached 10. The International Journal of Contemporary Hospitality Management also published 2 articles in 2020, and this number increased to 8 by 2024.

These data show that interest in digital marketing and tourism marketing has been increasing over the years, with Sustainability magazine in particular leading the way. These trends highlight that the impact of digitalization and sustainability in the tourism sector is increasingly being explored.

Analyses based on a specific set of articles, co-authorship relationships, and citations provide valuable information for understanding the authors who contribute the most to a field (Aria & Cuccurullo, 2017; Kumar et al., 2021). The authors who contributed the most to the research topic are listed in Figure 5 according to the number of articles they published. Sharma A. stands out as the most prolific author in the field with eight articles. He is followed by Sharma S. with seven publications and Sousa B. with five publications. These findings emphasize Sharma's leadership in this field and the importance of his scientific contributions. The continuous and regular contributions of these authors clearly demonstrate their influence in the relevant research field.
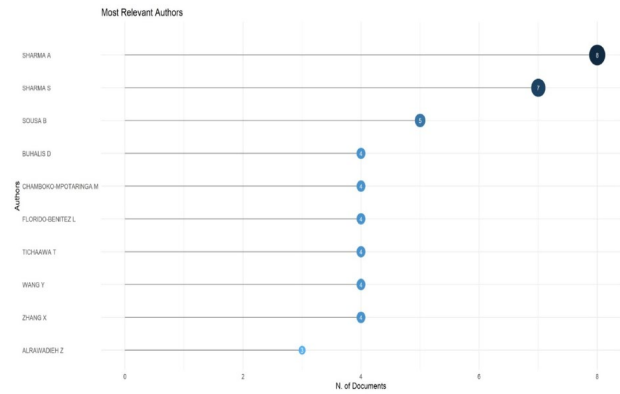
Table 4 shows the countries that contribute the most to the field of digital marketing and tourism marketing. China is the largest contributor with 90 articles, accounting for 13.7% of the total. Spain ranks second with 49 articles (7.5%) and Indonesia ranks third with 35 articles (5.3%). In terms of single country production (SCP), China ranks first with 73 articles, followed by Spain with 37 articles and Indonesia with 29 articles.

Table 4. The 10 Most Influential Countries in Digital Marketing and Tourism Marketing

Country	Articles	Articles %	SCP	MCP	MCP %
CHINA	90	13,7	73	17	18,9
SPAIN	49	7,5	37	12	24,5
INDONESIA	35	5,3	29	6	17,1
PORTUGAL	32	4,9	29	3	9,4
ITALY	29	4,4	24	5	17,2
INDIA	28	4,3	25	3	10,7
USA	27	4,1	19	8	29,6
UNITED KINGDOM	25	3,8	13	12	48
UKRAINE	20	3	18	2	10
GREECE	15	2,3	12	3	20

Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

In terms of multi-country cooperation (MCP) rates, the United Kingdom has the highest rate with 48%. This is followed by the USA with 29.6% and Spain with 24.5%. In terms of the number of multi-country collaborations, China leads with 17 articles, followed by Spain (12 articles) and the United Kingdom (12 articles). This data shows that China is the leader in single-country production, with Spain and Indonesia making significant contributions. However, the high MCP rates of countries such as the United Kingdom and the United States suggest that they stand out in international cooperation and interaction. On the other hand, countries such as Portugal (9.4%) and India (10.7%) exhibit a domestic production-oriented approach rather than international cooperation.

The most cited articles in the field of digital marketing and tourism marketing between 2019 and 2024 are presented in Figure 6. These articles have made significant contributions to the academic knowledge of the field and have had transformative effects on the literature.
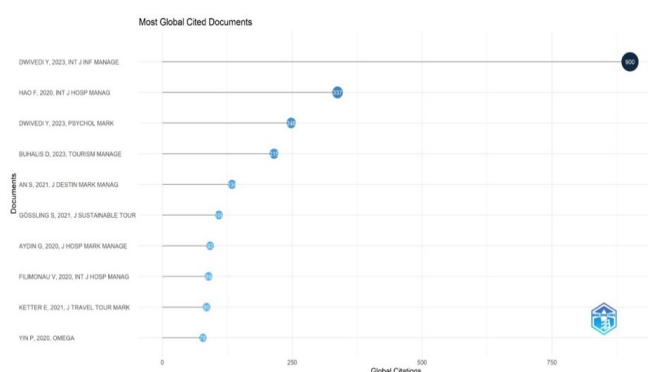
Figure 6. Most Globally Cited Documents
Source: Biblioshiny, based on Web of Science (WoS) and Scopus dataset

In particular, Dwivedi Y. (2023), published in the *International Journal of Information Management,* stands out with 900 citations, while the article by Hao F. (2020) in the *International Journal of Hospitality Management* ranks second with 337 citations. In addition, other studies such as Buhalis D. (2023) and Gössling S. (2021) have also made significant impacts in the field of tourism and sustainability. According to this data, these highly cited documents are the key studies that have shaped the field of digital marketing and tourism marketing.

Visualizations are employed in bibliometric analysis to determine the most popular research subjects and keywords in a certain field (Van Eck & Walt-

man, 2010). The key findings of scholarly research in the areas of digital marketing and tourism marketing, as well as the significance of these findings, are frequently displayed using word clouds or treemaps. Among the most commonly used phrases in the examined literature, keywords like "tourism" (117), "digital marketing" (78), "social media" (49), "marketing" (44) and "digital" (28) are noteworthy in this context. Furthermore, significant frequency was seen for phrases such as "covid-19" (26), "tourism marketing" (25) and "sustainable tourism" (15) (Figure 7 and Figure 8). These phrases' size and visual prominence indicate how frequently they are used in the literature and how significant these subjects are to the field.

Figure 7. Tree-Map

Figure 8. World Cloud

The prominence of terms such as "tourism" and "digital marketing" in the word cloud in Figure 8 shows that these concepts play a central role in digital marketing and tourism marketing literature. In addition, terms such as "sustainable tourism" and "digitalization" reveal that sustainability and digitalization are also among the main focal points of academic studies in this field. These keywords clearly reflect the research trends and key topics of the field.
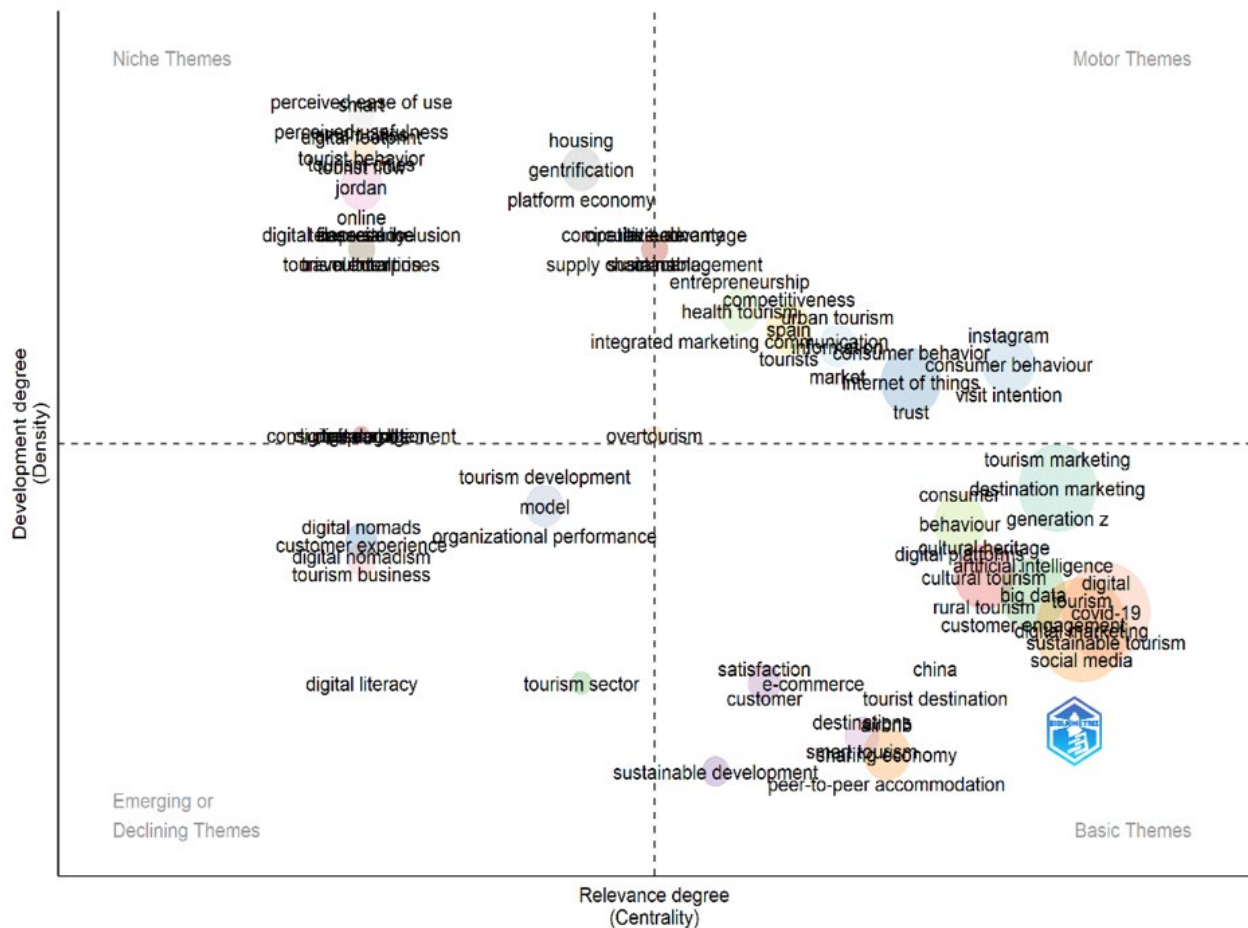
Figure 9. Thematic Map
Source: Biblioshiny, based on WoS and Scopus dataset

The analyses were conducted using methods such as thematic mapping and factorial analysis. Thematic map analysis has been employed as a powerful tool for understanding current and potential research topics within the context of the tourism sector and digitalization. In this analysis, core themes such as "entrepreneurship," "competition," "internet," "consumer behavior," and "social media" represent the most discussed and central topics in the field. Particularly, themes like "sustainable tourism" and "digital transformation" hold critical importance at both academic and sectoral levels.

Additionally, niche themes such as "perceived benefits" and "online behavior" examine the impact of digital platforms on user perceptions, while "digital literacy" stands out as a less explored but potential research area for the future. Factorial analysis has been utilized to visualize the relationships between themes by creating a conceptual structure map. As a result of this analysis, factor groups such as "digitalization, technology, and management" and "tourism marketing, digital platforms, and consumer behavior" emerged. For instance, terms like "cultural heritage," "augmented reality," "metaverse," and "sustainability" represent themes related to experiential tourism, cultural heritage, and technology. These methods have enabled a deeper analysis of the theories and methods used in studies, contributing to identifying thematic gaps in the literature and pointing out future research opportunities.

This so-called thematic map is a powerful analysis tool for understanding current and potential research topics in the context of both the tourism sector and digitalization. While motor themes represent existing focal points, niche and emerging themes provide researchers with opportunities for new ideas and original contributions. In particular, themes such as "sustainable tourism" and "digital transformation" are of critical importance both academically and industry-wide.

Motor themes have both a high degree of centrality and a high degree of development. Terms positioned in the motor theme area are described as the most important and most researched topics in the field. According to the map, entrepreneurship, competitiveness, the internet, consumer behavior, and social media, especially Instagram, are given importance. Technology-based themes such as "digital transformation," "artificial intelligence," and "big data" emphasize the critical role of tourism in the digitalization process.

Niche themes may have been intensively researched but may not have had a very broad impact in the overall context. They are usually related to a specific sub-field or specialization. While terms such as "perceived usefulness" and "online behavior" focus on the impact of online platforms and digital services on user perception and behavior, terms such as "Jordan," "housing," "gentrification," etc. focus on regional or local issues.

Key themes represent important issues in the field but are not sufficiently elaborated or explored in depth in the literature. Popular topics such as sustainability and social media, with titles such as "sustainable tourism" and "social media," are becoming increasingly important for both consumers and businesses. In addition, themes such as "customer satisfaction," "peer-to-peer accommodation," tourist satisfaction, and the impact of platforms such as

AirBnB are still widely analyzed. At the same time, with terms such as "smart tourism" and "e-commerce" in this theme, it can be stated that smart tourism and e-commerce applications are potential research areas.

Decentralized and underdeveloped Themes may be topics that are either emerging or losing importance in the field. Terms in this theme may be areas where there is little research interest but potentially offer new opportunities. "Digital literacy" and "digital literacy" in this area are important in a world where technology is rapidly evolving but have not yet been researched in depth in the tourism context. The terms "tourism business" and "digital nomadism" suggest that digital nomadism and new business models in tourism could potentially be on the rise.
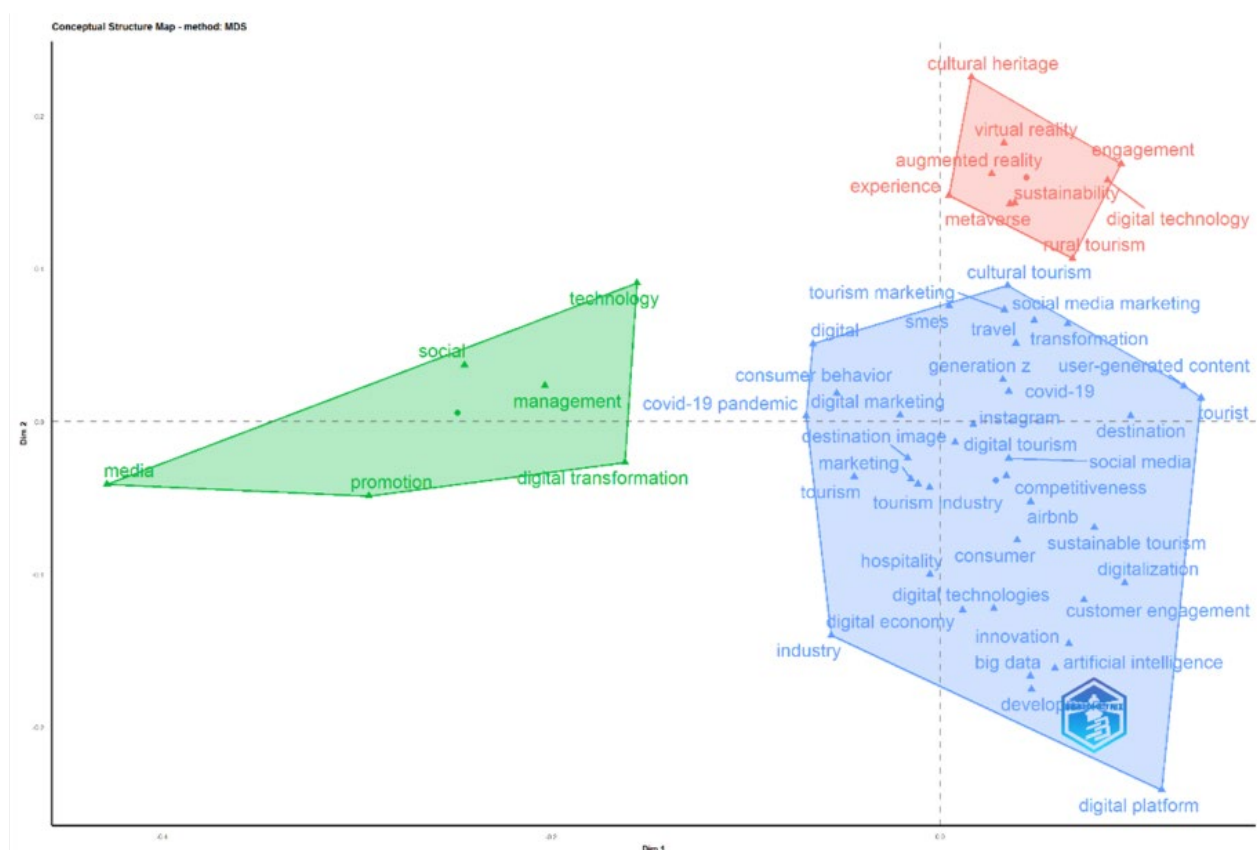
Figure 10. Conceptual Structure Map

Factorial Analysis

This visualization is *a conceptual structure map* created using multidimensional scaling (MDS). This map is used to visualize the relationships and factor groupings of concepts in a particular research area. The different colored areas and clustered concepts on the map show the similarities or differences of the themes, while the dimensions on the map express the relationship between the themes.

Terms like "digital transformation," "technology," "management," "social," "promotion," and "media" are used in the first factor group (green cluster) to refer to the themes of "digitalization, technology, and management." The terms "tourism marketing," "consumer behavior," "social media," "sustainable tourism," "Generation Z," "digital tourism," "hospitality," and "innovation" are employed in the second factor group (blue cluster) to concentrate on a

broad thematic framework, such as "tourism marketing, digital platforms, and customer behavior."

The terms "cultural heritage," "virtual reality," "augmented reality," "metaverse," "engagement," "experience," and "sustainability" are used in the third factor group (red cluster) to refer to concerns involving experience, culture, and technology, such as "experiential tourism, cultural heritage, and virtual reality."

The x-axis, which focuses on business and technology transformation, customer behavior, and experiential tourism, can be said to represent the role of digitalization in social, cultural, and business activities. While experiential and cultural challenges, as well as technical and sectoral transformation, are represented, the themes on the y-axis tend to be strategic and applied methods.

Conclusion and Discussion

This study comprehensively examines the academic production and the development of research in the fields of digital marketing and tourism marketing. Notably, there has been a significant increase in research in these areas between 2020 and 2024. Publications from 2024 account for 28.35% of the total academic production, indicating a rapid rise in academic interest in digital marketing and tourism marketing during this period. This increase highlights the growing research into the impacts of digitalization on the tourism sector and the accelerating effect of the COVID-19 pandemic on this process. The greater importance of digital marketing strategies in the post-pandemic period clearly shows the increasing emphasis on digitalization within the sector.

The findings of the study reveal that the literature on digital marketing and tourism marketing is growing rapidly, with a particular focus on key topics such as "digitalization" and "sustainability." Key terms frequently encountered in the literature include "tourism," "digital marketing," "social media," and post-pandemic research, which are of critical importance in understanding the transformation of digital marketing practices in the tourism sector and developing future strategies for the industry.

The study also examines scientific collaborations in digital marketing and tourism marketing. China stands out as the country making the largest contribution in these areas, while countries like Spain, the United Kingdom, and the United States show high levels of international collaboration. This finding emphasizes the need for more global cooperation and interaction in digital marketing and tourism marketing research. Increasing such collaborations will expand the scope of research and help better understand sectoral developments.

The findings also indicate that digital marketing strategies gained significant importance after the pandemic, with research in this area typically focusing on core topics such as social media, digital advertising, targeted marketing, and consumer behavior. The relationship between digital marketing and sustainable tourism practices has also been highlighted, emphasizing the need for further integration of these two fields. In this regard, research on how sustainable tourism and digital marketing strategies can be integrated holds significant importance both academically and sectorally.

In light of these findings, there is a need to adopt more holistic approaches to digital marketing and tourism marketing. For example, the relationship between digitalization and sustainable tourism could be analyzed in more detail, and the potential impacts of technologies such as artificial intelligence, augmented reality, and blockchain could be explored in this context. Additionally, critical issues such as the impact of social media algorithms on tourist behavior are important research areas to be studied in the post-pandemic period. The widespread adoption of open science practices that encourage data sharing among researchers can enhance contributions to the literature. Evaluating locally conducted research within a global context would provide a broader perspective.

This study has certain limitations. The research was limited to the Web of Science and Scopus databases, and studies from other databases were not analyzed. Similarly, only English-language publications were reviewed, and multilingual studies in the literature were overlooked. Moreover, the analysis period was set to 2020-2024, whereas studies covering a longer time frame could evaluate past and future trends more comprehensively.

In conclusion, academic development in digital marketing and tourism marketing is rapidly increasing, and these fields are expected to integrate more with concepts such as digital technologies, sustainability, data analytics, and environmental impact in the future. Future research will further deepen the scientific knowledge base by examining how digital marketing strategies are integrated with new digital technologies and how these strategies contribute to sustainable tourism practices. This will enhance the understanding of the role of digital marketing practices in the tourism sector and help solidify future strategies on a more robust foundation.

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A Fashion Idol in Fashion History: Elvis Presley

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Abstract

Fashion has been constantly changing and evolving throughout history. Depending on the social, cultural, economic and technological factors of societies, it has transformed into different styles and trends in different periods over the centuries. One of the elements that play an important role in the transformation of the fashion world is celebrities and idols. Since time immemorial, famous names in music, cinema, sports and many other popular fields have influenced large masses in society with their styles and clothing preferences. Famous artists and musicians have brought new trends to fashion with their stage performances, films, concerts, music videos and many similar events, and some of them have been referred to as idols in fashion.

Elvis Presley, who was known as the King of Rock'n Roll in the 1950s, was imitated among young people in those years with his unique style and hairstyle. Elvis Presley's clothes, stage shows and style have a significant impact on fashion history. The shiny and stony clothes he often used have been an important part of the men's fashion industry. The impact of Elvis Presley's clothes on the fashion world is not limited to that period thanks to his popularity and iconic image. The influence of idols has a great importance in fashion history. Many celebrities like Elvis Presley inspired the society with their clothes and styles and played an important role in the transformation of the fashion world.

The objective of this study is to analyze Elvis Presley's stage costumes in order to elucidate the fashion trends and sartorial styles of the era. A qualitative research methodology was adopted, structured within the framework of a case study design. The research population comprises male singers who achieved fame in the United States during the 1950s and 1960s. For the sample selection, the typical case sampling method was employed. In this context, Elvis Presley was included in the sample due to his representation as a quintessential figure, both in terms of his career and his iconic stage costumes. This research aims to investigate the correlation between Presley's attire and the dominant clothing styles of the 1950s, ultimately positioning him within the broader context of fashion history.

Keywords: 1950 Fashion, Elvis Presley, Stage costume, Fashion idol, Music.

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Introduction

Fashion is a vibrant world through which we reflect our individuality. It allows us to incorporate all our desires into this colorful realm. At the same time, fashion serves as a form of communication. Throughout the history of fashion, many fashion icons can be identified. In this study, the biography, career, and stage costumes of Elvis Presley, who is recognized as a fashion icon in fashion history, are examined.

Throughout his artistic career, Presley garnered significant attention for his diverse sartorial choices and simultaneously faced criticism due to his defiance of cultural and societal norms. This research will illustrate how personal clothing styles and fashion can evolve independently of these norms and attain acceptability. This perspective underscores the significance of the study. The research emphasizes the importance of freely expressing fashion irrespective of factors such as gender, belief, socio-cultural structure, race, economy, and social status. Presley is recognized as the initiator of the androgynous fashion trend. His use of colors, patterns, and embellishments challenged conventional perceptions of gender-specific clothing, thereby indicating the potential for similar shifts in fashion thought and showcasing fashion's boundless nature. The study also explores how Presley's fashion perception during his era influenced clothing trends and how these influences are reflected in his garments.

To this end, the study addresses the following objectives:

• To identify the characteristics of men's clothing in the 1950s,

• To examine the influence of art movements from the 1950s and 1960s on fashion,

• To analyze Elvis Presley's biography and the characteristics of his clothing between the years 1950 and 1960.

This study employs a qualitative research model, structured according to a case study design. The population of the research consists of male singers who were famous in the United States during the 1950s and 1960s. To determine the sample, the typical case sampling method was applied.

Elvis Presley

Presley has established his name among countless other artists whose legacies remain indelible in music history. The artist's uniqueness is primarily attributed to his pioneering of a new musical style, his striking appearance, his timeless songs, and his compelling character (www.axe.com/tr, 2023).

In the early hours of January 8, 1935, Gladys Presley gave birth to twin sons in a two-room shotgun house in Tupelo, Mississippi. Elvis Aaron Presley was born healthy; however, his identical twin, Jessie Garon,

was stillborn. Despite being a typical working-class family with limited means, Presley's family always believed their sons were special and consistently did their utmost to provide everything their children needed (Vymazalova, 2018).

Figure 1. Elvis Presley
https://www.google.com/search?q=elvis+presley

In 1946, while his mother Gladys was considering buying a guitar instead of an expensive bicycle for Elvis's birthday, she could not have anticipated that her son would become one of the greatest artists of all time. The first guitar, which Presley received from his mother, became the most meaningful gift of his artistic life. In 1948, before moving with his mother to his father's place in Memphis, Presley bid farewell to his classmates with the song "Leaf on a Tree," marking his first performance with the guitar (www.biyografi.net.tr, 2022). Elvis graduated from the workshop section of Humes High School in 1953 and subsequently worked as a truck driver for Crown Electric Company. In 1954, he made his first professional recording of the rhythm-and-blues song "That's All Right, Mama" with guitarist Scotty Moore and bassist Bill Black. Rising rapidly, he signed a recording contract with RCA by late 1955 and a management contract with the shrewd, tough, and perfect manager Tom Parker in 1956 (Jackson R., 1987). In November 1956, he starred in the film "Love Me Tender" for Twentieth Century Fox, marking the first of over thirty films he would make and propelling him to become one of the highest-grossing stars in the film industry by the early 1960s. Drafted into the U.S. Army in March 1958, Presley continued to release records during his two-year service. After his discharge in March 1960, he shifted his focus from live performances to Hollywood music (Inglis, 1996).

Elvis Presley is not typically associated with the 1960s. Instead, he is most often recognized in relation to the decades immediately before and after

this period. Cultural critic Greil Marcus refers to the years 1960-1967 in Elvis's career as a period of decline. During these years, Presley's musical creativity nearly ceased, with live performances being replaced by low-budget films. However, this does not imply that Elvis had no influence on popular culture during this period (Holdeman, 2007). The artist produced works across various genres, from church music to popular styles and from Rock 'n' Roll to Blues. Despite having experienced immense fame, wealth, and accolades during his lifetime, Presley's notoriety has not diminished over the years since his death. Tribute contests are held worldwide, websites and fan clubs have been established, and he has been featured in numerous radio and television programs and documentaries (tr.wikipedia.org, 2023). Although the importance of his Southern heritage has long been recognized, the complex connection between his career and Southern roots has received little attention. This study investigates how this identity has influenced every stage of Presley's career. Elvis Presley's career can be divided into three stages, each represented by a distinct image. Each image is encoded with a specific musical style, fashion style, and performance area (Doll, 2016).

1950s Clothing Fashion

The concept of fashion has been a continuously evolving phenomenon, shaped by various factors throughout history. Economic, sociological, musical, artistic movements, cinema, and political influences have all contributed to the evolution of fashion, with designers responding to these factors by creating collections that reflect them. At times, the reactive movements of youth have also inspired designers and impacted the fashion industry (Öztürk & Polat, 2014). Clothing fashion encompasses the use of garments produced in diverse forms, colors, styles, and fabrics, which individuals employ to construct social or personal identity. The expression and formation of social or personal identities are facilitated through appearances that align with contemporary fashion trends (Busch, 2017).

The post-war period was characterized by a resurgence in clothing fashion. During this time, people were in a state of recovery and optimism, which significantly influenced their clothing choices. To escape the psychological impact of the war, there was a notable shift towards more vibrant and extravagant clothing styles. Additionally, the changes in women's social roles and expectations after the war had a considerable impact on fashion. Women who ventured out of their homes began to adopt more stylish and refined attire.

In contemporary times, popular music—an essential element of popular culture—has significantly influenced fashion, with its impact being particularly pronounced during the 1950s. The connection between popular music and fashion has remained culturally significant from that era to the present day (Ertürk, 2011). In the 1950s, certain Hollywood films created a substantial impact on youth, leading to the emergence of a style that many young people subsequently emulated; this phenomenon is referred to as the "worker rebellion myth." Characters in these films were often portrayed wearing black leather jackets, t-shirts, and blue jeans (Figure 2). These films effectively captured the frustrations of working-class youth, causing audiences to identify with the characters and adopt their fashion choices (Göksel, 2007).

Figure 2. 1950s Men's Clothing
https://www.google.com/
search?=1950+li+y%C4%B1llar+deri+ceket+modas%C 4%B1

Starting in the 1950s, various youth subcultures and countercultural groups emerged, distinguished by their deviation from mainstream fashion. Young people not yet integrated into the workforce were unable to afford the expensive garments dictated by centralized fashion with their modest allowances. These subcultures, which often arose in the suburbs of metropolitan areas, were typically composed of marginalized, minority, immigrant, and working-class youth. In the 1950s, fashion associated with groups such as the Teddy Boys, Mods, and Hell's Angels became prominent. By the 1970s, the punk and hippie movements also gained global recognition for their anti-fashion aesthetics (Pektaş, 2008).

Subcultural groups have significantly influenced the evolution of fashion trends, often challenging the established norms of the fashion industry. Each group introduced new perspectives through their unique

use of materials, cuts, and combinations. The impact of these subcultures led to an increased prevalence of relaxed and unconventional clothing styles.

A major factor in the prominence of print designs in textiles during the 1950s was the widespread adoption of film printing techniques. This method allowed designers to experiment with new forms and engage in more innovative work by facilitating the use of a broader range of colors, reducing stencil costs, and enabling larger scale prints (Figure 3). As a result, the pace of change in fashion accelerated, even with fabrics of limited meterage (Gür Üstüner, 2017). The fashion industry experienced a revival with the use of high and medium-quality fabrics such as taffeta, nylon, wool, leather, and synthetic silk, coupled with vibrant colors and patterns (clothingandfashion, n.d.). The 1950s are particularly noted for the extensive use of synthetic fabrics. The term "nylon" eventually became synonymous with nylon stockings due to their increased popularity. Additionally, fibers similar to nylon, such as Dacron, Terilen, and Rayon, were developed (Alpan, 2005).

Figure 3. 1950s Clothing Fashion

https://www.google.com/search?q=1950%27s+fashion&tbm

While clothing forms in the 1950s were relatively consistent, variations in materials, colors, patterns, and embellishments enhanced the sense of diversity. For women, this period emphasized femininity, with garments complemented by elegant and refined accessories, including shoes and jewelry (Figure 4).

In the 1950s, the shirtwaist dress became emblematic of American women's fashion. This garment was characterized by its streamlined and sophisticated appearance. Henry Rosenfeld provided a diverse range of styles and fabrics, catering to various tastes and budgets. Elizabeth Hilt was responsible for designing shirtwaist dresses for Rosenfeld. The collars were meticulously constructed, and each design featured distinctive details, resulting in dresses that appealed to a broad audience. In his Spring/Summer 1951 collection, Rosenfeld introduced an array of models (Fogg, 2014).

Figure 4. Elizabeth Hilt, Spring/Summer Collection for Rosenfeld, 1951

Fogg, 2014, s. 329

One of the most prominent features of women's fashion in the 1950s was the sailor collar. Skirts were typically full and midi-length, with petticoats worn underneath both for evening and daytime wear. This was especially true for circle and flared skirts. Blouses and shirts were generally tucked into the waistbands of skirts, often complemented by belts. Daytime attire was characterized by a more understated approach, whereas evening wear featured more elaborate designs (Yılmaz, 2011). In the 1950s, women's clothing was noted for its elegance, sophistication, and classic style. Key elements included pastel shades, floral patterns, lace, ruffles, delicate accessories, voluminous skirts, makeup, curled hairstyles, and gloves, all of which underscored women's femininity. The fashion and clothing styles of this decade were well-aligned with the social and cultural norms of the period.

1950s Men's Clothing and Characteristics

In the 1950s, men's fashion exhibited distinct characteristics, notably in European and American styles. European fashion featured broad-shouldered silhouettes, while American fashion introduced wide

lapels, slim-fit trousers, long shirts worn over trousers, and vibrant colors. This era marked a transition from traditional to sporty attire. The influence of film icons such as James Dean and Marlon Brando (Figure 5) popularized leather jackets and blue jeans, while Edwardian elegance continued to be a prominent feature among the British (Ünal, 2015).

Figure 5. Marlon Brando, From the Movie 'The Wild One', 1953

Fogg, 2014, s. 342

Post-1950s, Western fashion and lifestyle began to influence the Soviet Union. Bartlett's concept of "daily fashion" evolved in line with contemporary trends. However, access to Western fashion in stores was limited, and local production was generally unfeasible. At this time, fashion items were often regarded with suspicion as potential instruments of ideological influence (Himam, 2015).

The influence of Western culture significantly transformed men's fashion, leading to the introduction of new trends. Key among these was the adoption of suits and ties, reflecting the broader impact of American culture through television, film, and music industries.

The clothing choices made by filmmakers for young actors played a central role in shaping these trends. Items such as short, zippered bomber jackets—named after the jackets worn by American aviators during the war—T-shirts, durable work boots, and

blue jeans became emblematic. This combination of rugged, durable, and functional clothing, initially associated with labor, established a distinct template for post-war men's fashion (Fogg, 2014). The use of double-breasted blazers became more prevalent, with accessories like ties, bow ties, and pocket squares becoming common. Overcoats, noted for their length and double-breasted design, emerged as a staple of men's outerwear, while fedoras were widely worn. Tailcoats were preferred for formal evening wear (Yılmaz, 2011). Denim blue jeans, initially designed as workwear for miners, farmers, and cowboys, gained widespread popularity among American youths in the 1950s, in part due to their association with rugged individualism rather than mere work attire (Sweeney, 2002).

The 1950s embraced a youthful, energetic, and modern approach to men's fashion. Influenced by artists, television programs, and film actors, young people, particularly those drawn to rock'n'roll music, favored slimmer and darker-colored clothing (Figure 6).

Figure 6. 1950s Men's Leather Jacket and Jean Fashion

https://www.carlthompson.co.uk/1950-in-britain

Among the notable fashion styles of the 1950s was the Preppy (Ivy) Style (Figure 7). This style, rooted in Ivy League tradition, featured classic garments such as navy blazers with gold buttons, khaki or chino trousers, Oxford button-down shirts, loafers, and rep ties, distinguishing itself from other men's fashion trends (Risinger, 2016). Men's fashion in the 1950s was notably influenced by Italian styles, characterized by elegant and modern cuts that produced softer silhouettes. The European Cut, introduced by the Rome-based firm Brioni, gained significant popularity among film stars and American men (Fogg, 2014).

Figure 7. 1950'ler Preppy (Ivy) Styles

Fogg, 2014, s. 308

The 1950s can be remembered as a period marked by a return to traditional styles in men's clothing. With the end of World War II, men's fashion began to move away from the restrictions imposed by the war, leading to the emergence of a more relaxed and comfortable style. The fashion trends of the 1950s continue to exert occasional influence on contemporary men's fashion.

Art Movements of the 1950s

During the 1950s, the art world saw the emergence of several influential movements, including Neo-Dada, Pop Art, and Space Age explorations. By the 1960s, movements such as Op Art and Minimalism came to the forefront. This era was characterized by the proliferation and impact of a range of significant and diverse artistic trends. In examining fashion history, it becomes evident that the cuts, colors, and designs of garments during this period were notably influenced by these art movements.

The influence of the Pop Art movement on fashion is prominently reflected in the works of designers such as Yves Saint Laurent, Emilio Pucci, Christian Dior, and Gianni Versace. This movement has notably impacted the application of vibrant color palettes, including tones like black, blue, red, green, yellow, and orange, as well as the incorporation of printed fabrics (Kalebek et al., 2022: 14, 15).

Conversely, the Space Age movement manifested in fashion through the utilization of white and silver tones alongside innovative polyester fabrics. The designs frequently employed bright colors and sharp-edged prints, prominently featuring geometric forms characterized by contrasting color schemes and varied scales (Usluca, 2011, pp. 45, 46).

The Op Art movement had a significant influence on designers such as André Courrèges, Mary Quant, Pierre Cardin, Paco Rabanne, and Richard Anuszkiewicz. Garments characterized by geometric

patterns in black-and-white or gray-and-white were produced, often utilizing plastic materials to create striking visual effects. Furthermore, the incorporation of wavy and graphic designs added a three-dimensional quality to fabrics. As the movement evolved, the color spectrum broadened, with the effects of this trend being evident in jackets, trench coats, skirts, and dresses (Gezicioğlu & Uslu, 2019: 1553-1557).

In the context of Minimalism's impact on fashion, designers have distanced themselves from the notion of "dressing to attract attention," opting instead for a more simplified aesthetic. This movement has foregrounded garments characterized by monochromatic designs. Instead of vibrant colors and intricate patterns, pastel shades or monochrome palettes of black and white have been favored. The designs typically feature straight cuts and loose silhouettes that do not closely adhere to the body. Notable designers such as Tom Ford, Jil Sander, Helmut Lang, Calvin Klein, Martin Margiela, and Shirin Guild have drawn inspiration from the Minimalism movement (Kumaş Şenol, 2018: 438, 439).

Neo-Dada Movement

Neo-Dada can be described as an art movement that developed in New York following the 1950s. It was spearheaded by Jasper Johns and Robert Rauschenberg. During the 1950s and 1960s, Neo-Dada encompassed young artists in New York who employed mixed media, found materials, ready-made objects, and elements of humor. The period of greatest influence for the Neo-Dada movement was between 1953 and 1965. Artists associated with this movement created anti-aesthetic works using collages and assemblages composed of found objects, similar to the Dada movement (Sülün, 2021).

The classification of the Neo-Dada movement has expanded to include Pop Art artists, Situationists, and Nouveau Réalistes, thus moving beyond a single group. Artists within this movement produced works that attracted media attention and were accessible, using diverse materials independent of specific artistic trends. In contrast to the complex philosophy of abstract art, Neo-Dada works featured humor and immediately recognizable imagery that required subtle intellect (Aktan, 2005). Neo-Dada artworks engage with life in two distinct ways at the perceptual level. Firstly, the viewer is transformed into an active participant, integrating the experience of viewing with the process of production. Secondly, the processes used in the creation of the artwork are directly derived from everyday life. Although the term Neo-Dada, which emerged in the late 1950s, has not been consistently applied, it has served to describe the period bridging Pop Art and Abstract Expressionism (Taşçılar, 2023).

This movement, prominently represented by artists

such as Robert Rauschenberg and Jasper Johns, catalyzed a significant transformation within the art world. Neo-Dada also left a distinct mark on the fashion industry, prompting designers to critically examine traditional fashion paradigms and to pursue innovative and unexpected designs. By challenging the boundaries of material usage in art, the Neo-Dada movement inspired fashion designers to incorporate unconventional materials into clothing and accessories. The introduction of materials such as plastic, metal, and recycled substances has led to the emergence of new forms of expression within the fashion realm. Notably, designers in the 1960s embraced this ethos, effectively transforming clothing design into a medium for artistic experimentation. This movement became a source of inspiration for designers to transcend conventional boundaries, resulting in the creation of bold and innovative designs. Consequently, it elevated fashion from a mere wearable commodity to a powerful vehicle for social critique, humor, and artistic expression. The spirit of Neo-Dada, characterized by its boundary-pushing ethos and its ability to transform the mundane into art, continues to resonate in the fashion world, inspiring contemporary designers to this day.

The Pop Art Movement

Pop Art emerged in England in the mid-1950s, initially catalyzed by an artwork created by British artist Richard Hamilton. Unlike traditional art movements, Pop Art does not correspond to a specific style but represents a discourse that found its own expression during its time. The term "pop" in Pop Art refers to certain superficial phenomena within society (Yavuz, 2007). Between 1955 and 1965, the Pop Art movement developed concurrently but independently in both America and England. This movement began as a response to the perceived institutionalization of traditional art, and its reactionary stance persisted throughout its evolution (Avcıoğlu Kalebek, etc., 2022).

Pop Art is characterized by an approach adopted by young artists in reaction to Abstract Expressionism. These artists employed visual culture tools such as advertising, packaging, and newspapers to create images of consumer products and popular culture icons. The movement is noted for its use of bright colors and large-scale works (Hüsem, 2017). Pop Art gained significant attention in the latter half of the 1950s. The extensive use of vivid colors and the incorporation of deformed, curvilinear lines became integral elements of the hippie culture (Yapıcı, 2005). The movement, prominently associated with artists such as Andy Warhol, Roy Lichtenstein, and Claes Oldenburg, redefined the boundaries of art by placing elements of everyday life—such as advertisements, comic strips, and celebrities—at its core. The audacious, vibrant, and ironic nature of Pop Art

exerted a profound influence on the fashion industry, compelling designers to develop works that are not only extraordinary and playful but also innovative. Within this context, Pop Art has emerged as a significant aesthetic movement in fashion, serving as a crucial medium for critiquing consumer culture and addressing pertinent social issues. Its legacy continues to inspire contemporary designers to explore the intersections of art, fashion, and society.

Space Age Movement

The Space Age represents a significant period characterized by humanity's exploration of the universe, scientific research, and the investigation of the possibility of living in space. This era, which began in the mid-20th century and continues today, introduced a futurist aesthetic in fields such as interior design, product design, and fashion. In 1961, Russian cosmonaut Yuri Gagarin became the first human to travel to space, and the same year saw French fashion designer André Courrèges debut the mini skirt (Mehrali, 2015). In the latter half of the 1960s, space travel and the moon landing had a profound impact on daily life, leading to the creation of films about space exploration and the development of interior designs and products inspired by the Space Age concept. In fashion, this influence was reflected in the use of white and silver colors, as well as new polyester fabrics. Designs often featured sharp lines, bright colors, and geometric patterns, employing both large and small geometric forms with contrasting colors (Usluca, 2011). The space race also led to significant changes in fashion and design. Traditional uses of materials—such as metal for cutlery, plastic for picnic items, and paper for writing—were challenged and redefined with the advent of space exploration. Consequently, materials ranging from plastic disks to paper and PVC to leather were utilized in clothing production (Yetmen, 2011). The Space Age, which began in the late 1950s, marks a period during which humanity took significant steps towards exploring outer space. This excitement resonated profoundly in the 1960s, influencing both scientific advancements and popular culture. The landmark event of human beings setting foot on the Moon, advancements in space technologies, and the rising popularity of science fiction narratives catalyzed substantial transformations within the fashion industry. The Space Age movement cultivated a fashion aesthetic characterized by brightness, futurism, and innovation, representing modern technology and scientific discovery.

Throughout the 1960s and 1970s, the influence of the Space Age led to the increasing popularity of plastic and synthetic materials in fashion. Designers drew inspiration from space suits, incorporating these durable and flexible materials to infuse fashion with a more experimental and innovative approach.

This movement facilitated the creation of designs that were both stylish and functional, as synthetic fibers allowed for greater versatility in fashion design.

Op Art Movement

The Op Art movement is distinguished by its use of optical illusions designed to prompt viewers to remain attentive. These works are intended to have psychological effects and stimulate intellectual engagement. In two-dimensional graphic arts (such as prints, paintings, patterns, graphic design, and photography), the content often appears to be merely extensions of two dimensions (length and width). However, these works provide viewers with an experience of spatial illusion (Uğur, 2019). During the early 1960s, the movement of simple geometric patterns emerged as a new artistic trend known as Op Art. Typically, works in this movement are created in black and white to generate illusionary effects (Zanker & Walker, 2004).

Historically, the development of Op Art can be traced back to the Impressionists and their exploration of light and color. Impressionist artists used figures and often conducted experiments with light and its reflection on objects. The primary characteristic of Op Art is its ability to produce images that convey the sensation of movement without actual motion. This involves the repetition of simple elements, the use of complementary colors, the exclusion of perspective tools and spatial ambiguities, and the creation of direct perceptual appeal without reliance on symbolism or associative meanings (Humphrey, 2008). The Op Art movement rapidly transcended the confines of the art world, exerting a profound influence on the fashion industry. Merging with the pop culture and libertarian spirit of the 1960s, Op Art heralded a new era characterized by graphic patterns, stark black-and-white contrasts, and optical illusions, particularly evident in fabric designs. The impact of Op Art on fashion extended well beyond the 1960s; geometric patterns and optical illusion-based graphics have resurfaced repeatedly in the fashion landscape over the decades.

Contemporary designers continue to draw inspiration from the aesthetics of Op Art, incorporating this style into their collections. This resurgence is particularly prominent during periods marked by a revival of minimalist and futuristic fashion, where the influence of Op Art remains evident. Thus, Op Art has not only redefined the visual language of fashion but has also established a profound and enduring impact that continues to resonate with designers and consumers alike.

Minimalism Movement

Minimalism has been an art movement since the 1960s, initially in painting and sculpture, and later extending to architecture, music, and literature (Karaca, 2020). This movement is characterized by achieving the most functional result with minimal materials, emphasizing simplicity and economy. Minimalism favors restraint and avoids ornamentation and excessive decoration. The aim of minimalists is to use materials with minimal alteration, preserving their essential qualities (Kültür, 2022).

One of the most notable figures in minimalist art is Dan Flavin. In minimalist works, industrial materials are commonly used in simple, volumetric, and geometric forms. Many minimalist artists have employed materials such as steel, wood, fire bricks, artificial foam, and copper plates in their creations. Minimalist art, with its focus on design, introduces a measured, precise, and systematic approach (Or Bayram, 2002). Minimalist artists use a restricted palette of colors and materials, reducing the number of elements as much as possible. The term "minimalism" emerged in the early 1960s as a reaction to Abstract Expressionism, representing a new form of abstraction in sculpture and painting (Stepaniak, 2018). Minimalism, which gained prominence in the mid-20th century, represents a radical departure from excessive ornamentation, instead advocating for the seamless integration of simplicity, clarity, and functionality in fashion design. This movement promotes a design philosophy centered around reductionism, where embellishments are minimized, and a focus is placed on clean lines, understated elegance, and a refined aesthetic. By distancing themselves from elaborate decorations, complex patterns, and ornate details, minimalist designers employ streamlined silhouettes and neutral color palettes to create designs that are both visually and functionally harmonious.

In minimalist fashion, each garment is designed with a meticulous attention to balance, ensuring that functionality and aesthetics coalesce in a cohesive manner. The emphasis is placed on the practicality, wearability, and longevity of the design, aligning beauty with simplicity and high-quality craftsmanship. Minimalist design principles challenge conventional notions of luxury by presenting an alternative that celebrates restraint, precision, and the intrinsic value of materials. This movement has left a lasting impact on contemporary fashion, influencing not only the creations of modern designers but also the broader cultural landscape's understanding of fashion as a medium of both expression and utility.

Elvis Presley's Clothing Characteristics

Elvis Presley was a seminal figure in 1950s music, noted for his pioneering role in blending fashion and music. As the first to bridge these two realms, Presley's distinctive style—characterized by flashy pants and embellished shirts—set new trends, influencing the fashion of the 1960s youth, as exemplified by the Beatles. Additionally, the fashion of the 1970s was

impacted by films such as Woody Allen's Annie Hall (Alpan, 2005).

Elvis Presley is widely regarded as one of the most influential pop culture icons of the 20th century, making a significant impact not only through his musical achievements but also through his distinctive sartorial choices. The garments donned by Presley not only encapsulated the fashion trends of his era but also played an instrumental role in shaping the visual identity of rock 'n' roll. His style evolved into a symbol of rebellion and innovation, ultimately elevating him to the status of a fashion pioneer. The characteristics of Presley's attire encompass a diverse range, including stage costumes and everyday clothing, thereby reflecting the cultural zeitgeist and the dynamic trends of the time. This duality of his persona as both a musician and a fashion icon underscore the interconnectedness of music and style in the broader context of 20th-century popular culture. Throughout his career, Presley was renowned for his bold and innovative style. His colorful and extravagant outfits, though unconventional for the era, gained widespread acceptance and increased influence. His approach underscored the significance of boldness and originality in fashion, challenging the norms of his time. Presley's hairstyle also drew considerable attention and was widely emulated.

Presley's unconventional image resonated strongly with the youth of the 1950s, who admired his collared shirts, black leather jackets, and patterned shirts. His influence led to the popularity of tight jeans, floral-patterned shirts, and clothing adorned with slogans. This period also saw the decline of layered petticoats previously worn by girls (Altınay & Yüceer, 1992).

The impact of Presley's style extended beyond his contemporaries, shaping popular culture and influencing women's fashion as well. His distinctive approach inspired many to adopt similar styles in their own fashion choices.

Presley's provocative dance style and unique clothing combinations made him a source of inspiration for the younger generation, yet also elicited concern from critics and conservative groups. Criticized by churches and conservative individuals, Presley earned the moniker "Elvis the Pelvis" and faced accusations of undermining societal and cultural values. His use of pink jackets and his distinctive dance moves prompted debates about gender norms in fashion, making him a focal point of criticism. This period may also represent an early step towards the concept of gender-neutral fashion (aposto.com, 2021). In the 1960s, Presley's floral-patterned shirts in the film Blue Hawaii contributed to the popularization of floral patterns in men's fashion. His style was subsequently adopted by renowned brands such as Dior, Prada, Saint Laurent, and Gucci. Discussions about Presley's appearance and musical influence are a common aspect of fan discourse, with descriptors like "Elvis the Pelvis" reflecting the ongoing analysis of celebrity images (Duffett, 2011).

Presley's contributions to 1950s fashion were significant. His clothing choices, hairstyle, and innovations in youth fashion had a profound impact on the fashion trends of the era (Figure 8). His stage performances, featuring embellished jumpsuits, colorful or patterned shirts, and glittering pants, were particularly noteworthy.

Figure 8. Men Influenced by Elvis Presley's Style
https://www.demon-media.co.uk/2020/01/30/a-fashion-movement-teddy-boys-and-the-importance-of-the-teddy-girls/

Elvis Presley gained prominence in the music world during the 1950s and 1960s. Beyond his musical achievements, Presley became a significant icon in fashion, symbolizing a unique style. His influence extended beyond music, leaving a notable mark on fashion with his distinctive clothing choices. Presley utilized elements of color and embellishment traditionally associated with women, challenging and attempting to dismantle these gender-based fashion norms. His impact on fashion remains evident today, continuing to inspire designers, fashion professionals, and artists. Presley's style endures as a source of inspiration and influence within the fashion industry.

Methodology

This study employs a qualitative research model and is structured according to a case study design. The fundamental characteristic of qualitative case study research is the in-depth investigation of one or more cases. In this context, the factors affecting a particular situation (environment, individuals, events, processes, etc.) are examined holistically, focusing on how these factors influence the situation and how they are affected by it (Yıldırım & Şimşek, 2021). The population of the research consists of male singers who gained fame in America during the 1950s and

1960s. The typical case sampling method was employed to determine the sample. When researchers aim to work on a new application or innovation, they can select the most typical case(s) from a range of situations to study (Yıldırım & Şimşek, 2021).

In this regard, Elvis Presley has been included in the sample of the study as a typical example due to his career and the stage costumes he used. Many male singers who were popular in America during the 1950s and 1960s left significant marks in the music world. Some notable figures from this period include:

1950s:

1. Elvis Presley: Known as the King of Rock 'n' Roll, Presley gained immense popularity with hit songs such as "Hound Dog," "Heartbreak Hotel," and "Jailhouse Rock."

2. Frank Sinatra: Gaining fame in the 1940s, Sinatra remained one of the prominent figures in the music world throughout the 1950s. His songs, including "Fly Me to the Moon," "My Way," and "Strangers in the Night," were very popular.

3. Buddy Holly: Recognized as one of the pioneers of rock 'n' roll, Buddy Holly is known for songs such as "That'll Be the Day" and "Peggy Sue."

4. Chuck Berry: Another legend of rock 'n' roll, Chuck Berry made a significant impact with songs like "Johnny B. Goode" and "Roll Over Beethoven."

5. Little Richard: Famous for his energetic performances and groundbreaking rock 'n' roll songs, Little Richard's tracks such as "Tutti Frutti" and "Long Tall Sally" have become iconic.

1960s:

1. Bob Dylan: One of the most influential singer-songwriters of the 1960s, Dylan is known for his evolution from folk music to rock. "Blowin' in the Wind" and "Like a Rolling Stone" are among his most famous songs.

2. Ray Charles: Known as the father of soul music, Charles gained fame with songs like "Georgia on My Mind" and "Hit the Road Jack."

3. Sam Cooke: A revolutionary figure in soul music, Cooke is recognized for songs such as "A Change Is Gonna Come" and "You Send Me."

4. James Brown: A pioneer of funk and soul music, Brown made a significant impact in the 1960s with songs like "I Got You (I Feel Good)" and "Papa's Got a Brand New Bag."

5. Otis Redding: Another major figure in soul music, Redding is known for songs like "Sittin' on the Dock of the Bay."

These individuals represent only a portion of the singers who left a significant mark on the American music scene during the 1950s and 1960s. Among them, Elvis Presley, selected through the typical case sampling method, forms the subject of this research, which is limited to Elvis Presley. The data for the study were collected and analyzed using document analysis methodology. In qualitative research, this method is utilized in situations where direct observation and interviews are not feasible, or to enhance the validity of the research. It can be employed independently or in conjunction with other methods (Yıldırım & Şimşek, 2021).

Findings

Iconic Costumes and Analyses of Elvis Presley

This study focuses on the analysis of five iconic costumes of Elvis Presley, which are believed to have had a significant impact on fashion. While analyzing these outfits, images found in the digital environment were used. Analyses were made based on the parts visible in these images. The analysis commenced with a fabric examination, followed by an assessment of patterns and embellishments on the garments. The analysis was conducted in a sequence from the inside out, starting with upper garments and moving to lower garments, and concluded with an evaluation of the shoes. Additionally, the study examined whether these costumes were influenced by contemporary artistic movements, and relevant observations and comments on this topic were included.

Pink Jacket

Elvis Presley first wore the pink jacket (Figure 9) on June 5, 1956, during his early career on the Milton Berle Show, attracting significant attention with his outfit (www.elvis-history-blog.com, 2010). Due to the unavailability of the back view of the jacket, the analysis focuses solely on the front view, with the back details inferred from researchers' opinions. The jacket is designed in a regular fit and is made from a pink cotton fabric with a white checkered pattern. It features a classic men's collar and broad shoulders. The jacket lacks darts or pleats and fastens with a single button. On the front, there is an appliqué pocket on the left side of the chest, while two large flap pockets are placed symmetrically towards the hem. The pocket placement follows the pattern of the fabric. Three decorative buttons are present at the cuffs. The jacket's length reaches the hip level. Given the regular fit, it is assumed that the back center is seamed and lacks darts or pleats.

Presley typically paired this jacket with a white shirt featuring a black collar or entirely black shirts, along with black trousers. This jacket was frequently worn during Presley's early performances. Although it initially faced mixed reactions due to its color, it later became a source of inspiration for many. Elvis Pres-

ley emerged as a source of inspiration for the youth, characterized by his distinctive attire and provocative dance movements, while simultaneously becoming a point of contention for adults and critics. The conservative factions and the church, opposing both cultural and social norms, derogatorily referred to him as "Elvis the Pelvis." Through his clothing choices, he became an artist who critically interrogated the gender roles of his era. Notably, during his appearance on the Milton Berle Show, where he donned a pink jacket, he was subjected to questions such as, "Do men wear pink? Do they dance suggestively?" Despite the extensive criticism he faced, Presley continues to exert a significant influence as a fashion icon to this day (https://aposto.com, 2021).

It is speculated that Presley's pink jacket was influenced by the bright colors associated with the Pop Art movement of the era.

regular fit. The suit jacket is regular cut and has a shawl collar. The width of the shawl collar is estimated to be six cm. The shoulders are broad, and the jacket fastens with a single button at the front. The jacket includes darts on the front and two side pockets, as well as a decorative pocket on the left side of the chest.

The cuffs of the jacket are double. The trousers are loose-fitting with a straight leg cut. The outfit is completed with gold-colored shoes, which feature a short heel, pointed toe, and bow. A bow tie is used as an accessory. The Gold Suit is distinguished by its bright embellishments, including silver stones. These embellishments are applied to the collar, front closure, sleeves, and pocket openings of the jacket, as well as the side seams of the trousers. Gold and silver threads are used in the stitching.

Figure 9. Pink Jacket
https://www.theguardian.com/fashion/gallery/2018/aug/23/fit-for-the-king-elvis-presleys-fashion-legacy-in-pictures

Gold Suit

Elvis Presley first wore the Gold Suit on March 28, 1957 (https://elvisbiography.net, 2017). Although the exact number of times he wore this suit is not precisely documented, it is known that it appeared in several of his projects. Due to the lack of a rear view, the analysis is based solely on the front view of the suit. Known as the Gold Lame Suit (Figure 10), this outfit features a shiny, metallic gold fabric, as indicated by its name. The original model of the suit includes a shirt in the same color; however, Presley is known to have worn shirts of different colors in various appearances. The shirt is presumed to have a

Figure 10. Gold Suit
https://www.facebook.com/elvis/photos/elvis-gold-lam%C3%A9-suit-was-featured-on-the-cover-of-his-1959-album-50000000-elvis-/10160242349943792/?_rdr

Elvis Presley's gold ensemble is regarded as one of the most iconic stage outfits in music history. At that time, no other artist had donned such a flamboyant costume. The bright gold costume worn by Elvis on stage has become one of the defining elements that solidified his title as the "King." This outfit is also viewed as a precursor to the bold and innovative designs characteristic of 1950s rock 'n' roll fashion. The gold costume exemplifies how stage artists can expand their stylistic interpretations and enhance their performances through clothing.

The Gold Suit is notable for its color and decorative elements. It was designed to highlight Presley's charismatic stage presence and make a strong impression. As one of the symbolic examples of Presley's iconic style, this suit holds a significant place in music history, much like many of his other outfits. Furthermore, the suit reflects the influence of the Space Age period, likely inspired by the colors and materials associated with that era.

Red Suit

Elvis Presley wore the Red Suit (Figure 11) during a television show performance of the song "Teddy Bear" in 1957 (https://ew.com, 2022). In this outfit, the shirt is made from white and red satin, while the trousers are likely made from red cotton fabric. The analysis of this suit is based on available front-view images, as no rear view is available. The shirt is constructed from two-tone satin in a regular fit. The collar is wide and made from red satin, featuring white floral embroidery. The front of the shirt is yoke-detailed, made from red satin, with similar white floral embroidery on the yoke. The shirt fastens with buttons and includes a pocket on the chest with a red bias trim. The shirt does not have darts or pleats. The model is long-sleeved, with sleeves made from two-tone satin, including white satin up to the elbows. The cuffs, extending to the elbows, are made from red satin and feature white floral embroidery. Each cuff has five buttonholes, with buttons covered in red satin. Based on professional training and experience, it is anticipated that the back of the shirt is also yoke-detailed. The trousers are a regular fit with a straight leg cut, featuring a zip closure. The belt width is estimated to be four cm, with four belt loops (two at the front and two at the sides) secured with red buttons. It is assumed that there are also four belt loops at the back. The front of the trousers features two diagonal decorative pockets, with white bias trim on the pocket edges. White bias is also sewn along the side seams of the trousers, and there is a decorative pocket on the back, with white bias trim on the pocket edges.

Elvis Presley completed the outfit with burgundy pointed-toe, short-heeled shoes and a white satin cravat. Like his other outfits, this suit is distinct in its fabric, color, and embellishments, aligning with Presley's iconic stage style. The suit reflects the influence of the Pop Art movement, evident in the choice of vibrant red and floral motifs.

Figure 11. Red Suit
https://www.thesun.ie/travel/8172455/elvis-presley-apartment-memphis
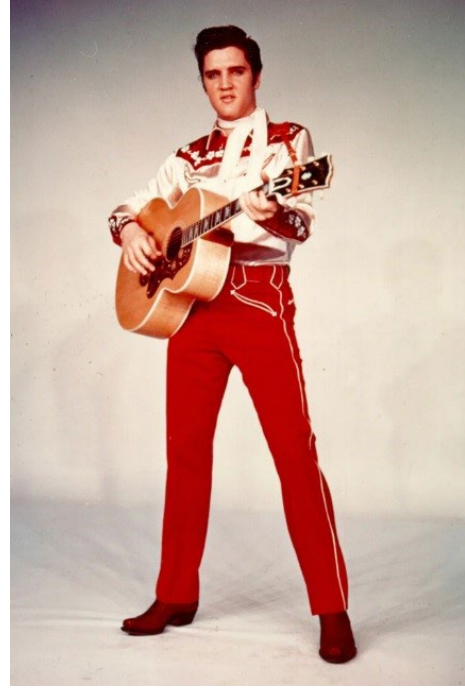
Denim Suit

Elvis Presley first wore this denim suit (Figure 12) in 1958 during the filming of the music video for "Jailhouse Rock." (www.youtube.com, 2010). Since there is no image of the back of the garment, the analysis was conducted based on the front view. As indicated by its name, the suit is made of denim fabric. Presley wore a shirt underneath the suit, likely made of cotton with horizontal black and white stripes, presumed to be of a regular fit. The shirt features a classic men's collar crafted from black fabric, with a simple button and buttonhole closure. Care was taken to ensure the alignment of the stripes on the shirt.

The jacket is tailored in a regular fit and features a stand-up collar. The front closure consists of five buttons, with white buttons and buttonholes stitched using white thread. The sleeves are constructed in two parts. The jacket is free of darts or shaping seams, and its length reaches the hip line. On the left front side of the jacket, some numbers are appliquéd at chest level. The pants are also designed with a regular fit and a straight-leg cut. They include a waistband, estimated to be four centimeters wide, and are fastened with a single button and zipper.

A Fashion Idol in Fashion History: Elvis Presley

There are side pockets on the front of the pants.

The decorative stitching on this suit was done by hand using a topstitching technique. On the jacket, a single row of this stitching was applied around the collar, while on the shoulder and sleeve seam lines, it was applied in two rows. It's estimated that the same decorative stitching was used on the inside of the front cover, approximately eight centimeters in from the edge. It is estimated that the sleeve cuffs had similar stitching five centimeters above the cuff. The hem of the jacket also includes this stitching, one centimeter above the edge. On the pants, the wide topstitching, done in white thread, is present on the pocket openings, fly, inseams, and side seams. The black and white striped pattern of the shirt reflects the influence of the Op-Art movement, while the fabric and monochromatic design of the denim suit demonstrate the influence of Minimalism.

jacket is fastened with two buttons and buttonholes located at the belt. The sleeves are constructed in two pieces, with a single button closure at the cuffs. The back of the jacket includes both a yoke and darts. The pants are designed with a straight leg cut and fastened with a zipper and a button at the waistband. Darts are present on both the front and back of the pants, and the waistband is estimated to be 4 cm wide. Seams run along the crease lines, and two large appliqué pockets are featured on the back.

Presley complemented this Rock 'n' Roll ensemble with leather bracelets, metal accessories, and large rings. In contrast to his other costumes, which were often made of colorful fabrics with sparkling stones and embellishments, this outfit's design emphasizes Presley's stage presence. The influence of minimalism is evident in this outfit, with its simplified form, material, and color choices.

Figure 12. Denim Suit
https://www.alamy.de/elvis-presley-mit-jailhouse-rock-musikfilm-1957-koloriertes-foto-image456628192.html

Figure 13. Black Leather Jacket
https://t24.com.tr/yazarlar/mehmet-ali-cicekdag/gercek-kral-elvis-presley,45622

Black Leather Jacket

Elvis Presley first wore this leather jacket and pants ensemble (Figure 13) in 1968. He initially sported this outfit during a television program and later wore it at a concert in Las Vegas (www.rollingstone.com, 2017). The primary material of Presley's outfit is black leather, which provides a sturdy, durable, and striking appearance. The outfit consists of a leather jacket and leather pants, embodying the Rock 'n' Roll style and conveying a powerful stage presence.

Both the jacket and pants are tailored in a slim fit. The jacket features a wide, upright collar and is darted at the front. Large, flap-covered pockets are positioned at chest level. The hem of the jacket includes a belt, estimated to be 3 cm wide, and the

Conclusion

Fashion reflects changes in people's clothing styles, preferences, and trends. The factors that determine fashion have evolved over time, influenced by societal values, technological advancements, economic conditions, and cultural interactions. After World War II, the 1950s witnessed a revival in fashion, with a shift towards more feminine and elegant styles. The end of wartime restrictions led to a departure from simple designs to the prominence of luxurious and elaborate details. Accessories also gained significant importance during this period. The fashion industry of the 1950s was notably influenced by film stars and artists, leading to the spread of new clothing styles to broader audiences.

Şerife Gülcü Yıldız / Ayşe Büşra Turan

Fashion allows us to express our personality, colors, culture, beliefs, values, dreams, and many other aspects of ourselves. It enables us to add our unique touch to various aspects of life and reflect our inner selves. Fashion provides choices that allow us to showcase our individuality and make selections that are distinctly our own.

Elvis Presley's fashion sense challenged the social norms of his time and inspired the youth with a bold and innovative style. Young people emulated his look, leading to a wave of freedom and originality in fashion. Presley's clothing also marked a revolution in gender roles. While most men of that era favored traditional, more restrained clothing styles, Presley's daring attire represented the beginning of a new approach in men's fashion (https://saatolog.com.tr/, 2022). His influence extends beyond his era, with elements such as high-waisted pants, leather jackets, and slim-fit jeans remaining popular today.

This study examined five of Elvis Presley's outfits. The first, a pink jacket, captured the attention of young people at the time. Influenced by the pop-art movement, this plaid-patterned pink jacket was one of Presley's early garments reflecting the concept of genderless fashion.

Another notable outfit is the gold suit. This suit was designed under the influence of the space age fascination of the period, which significantly impacted fashion trends at the time. The color and metallic finish of the fabric used in Presley's suit evoke the space age influence. The suit features matching shiny embellishments applied to the collar, closure, pocket openings, cuffs, and side seams of the pants.

The red suit is one of Presley's most eye-catching outfits in terms of color and detailing. Made from satin and adorned with embroidered floral patterns, it reflects the concept of genderless fashion. The use of red and floral motifs in this outfit is associated with the pop-art movement. It is complemented with a white satin scarf and maroon, short-heeled shoes.

Presley's denim outfit merges minimalism and op-art influences. The black and white striped shirt represents op-art, while the simplicity of the denim suit showcases minimalism. This outfit contrasts with Presley's typically vibrant and extravagant attire, highlighting a more understated style.

Lastly, Presley's leather ensemble epitomizes his "King of Rock" persona. The form-fitting jacket and pants reflect his powerful stage presence. This leather suit demonstrates minimalism in both color and fabric, with the black leather highlighting a minimalist aesthetic.

In addition to his musical career, Presley had a significant impact on the fashion world, leading the way for youth freedom and self-expression through clothing. His bold and attention-grabbing outfits deviated from the era's conventional styles, featuring loose-fitting, glamorous, and vibrant garments. Slim pants, wide-collared shirts, colorful suits, and striking jackets became his signature. Presley's influence on fashion extends beyond his time, with his impact still felt today. His entire wardrobe is displayed in London, and his Memphis home, Graceland, has been converted into a museum showcasing his belongings (https://www.graceland.com/epm, 2024).

Elvis Presley's style has emerged as a pivotal source of inspiration, transcending his own era to influence subsequent generations. His stage outfits have become iconic symbols of rock 'n' roll music, and even today, numerous artists and designers continue to draw inspiration from his distinctive clothing choices. Presley's audacious and unique aesthetic epitomizes a fashion paradigm that challenges conventional boundaries.

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The Impact of Therapeutic Recreation Practices on the Quality of Life, Mental Well-Being and Self-Esteem of Young Adults 🔗

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Abstract

Therapeutic recreation refers to participation in individual or group-specific recreational activities to ensure the sustainability of the functions of individuals and the improvement of the functionality of these functions. The objective of this study is to examine the impact of therapeutic recreation practices on the quality of life, mental well-being and self-esteem of young adults, as well as to evaluate the efficacy of recreational activities in coping with stress. In this in-depth analysis, a sequential explanatory mixed methods design was employed. The implementation of Quality of Life, Mental Well-Being and Self-Esteem scales, needs assessment, interview forms, and unique recreational interventions occurred through a quasi-experimental process. The interventions were designed around a number of different themes, including music and poetry therapy, drama, creative writing, painting, nature, play, social skills, mindfulness, insight and empathy. The results demonstrate that therapeutic recreation interventions enhance quality of life, mental well-being and self-esteem; mitigate stress, engender happiness, foster a positive outlook, enhance awareness and are efficacious in developing insight and motivation. The results of the study indicate that planned therapeutic recreation activities can play a significant role in the development of public health services based on mental well-being, social development of the community, increased happiness and a better quality of life for women by reducing the gender gap. Furthermore, when analysed holistically, this original study combining health and entertainment provides a wealth of data, including the relationships between dependent variables, and various ideas for further research.

Keywords: Therapeutic Recreation, Leisure and Social Activity, Mental Health, Quality of Life, Well-being.
JEL Codes: L83, I10, D91, C90, D83

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Introduction

The use of artistic activities for therapeutic purposes can provide a safe and non-judgmental environment for the individual to reveal their aesthetic point of view. These activities are essentially about endeavour, risk-taking and self-expression. Individuals who engage in artistic activities can develop their aesthetic awareness and acquire many skills while developing their communication skills and revealing their emotions (Karaküçük, 2012:29). Recreational activities that support mental health, especially themes with mindfulness content, can be used effectively with students. Especially for post-secondary students, it is important that these activities are easily accessible and cost-effective in terms of mental health philosophy. In this sense, recreation providers can play an effective role in protecting students' mental health and raising awareness of mental health (Litwiller et al., 2022).

Therapeutic Recreation (TR) is a holistic process that consciously uses recreation and experiential interventions to create a social, emotional, intellectual, physical or spiritual change in order to maintain and improve health status, functional capacity and quality of life (Carter & Van Andel, 2019:5-6). In other words, recreation activities can increase positive mood (Bielinis at al., 2019). Participation in leisure activities creates a favourable environment for social relationships and enables individuals to obtain social benefits (Sevil, 2015). There is a need for the applied field of therapeutic recreation to be directed towards all individuals, issues and institutions. It can be applied in the field of sports activities and educational games to protect mental health, reduce stress and increase the happiness of all citizens (Çakırlar & Yaman, 2022). The participants are not individuals from groups such as disabled, sick, elderly, etc. that are often studied in the literature. In this sense, the fact that the implementation of therapeutic recreation was carried out with students who are trying to cope with the stress, future anxiety, academic anxiety, social anxiety, etc. that everyday life brings, measuring the effect of TR on the quality of life, self-esteem and mental well-being levels of these students, and examining the relationships between these variables, expresses the contribution of the research to the literature. As peer groups have a high value in terms of therapeutic potential (Wheeler et al., 2020), the study was conducted with second year pre-school students in the same or similar age group and with similar characteristics. A comparative analysis of the quantitative and qualitative findings of the study with the existing literature is discussed in the discussion section.

Therapeutic recreation

Health refers not only to the absence of disease and disability in individuals, but also to a state of complete physical, mental and social well-being (WHO, 1946). There is an association between reduced physical activity and the occurrence of mental health problems. Participation in physical activity is associated with life satisfaction, cognitive function and psychological well-being (Carek et al., 2011). Living with low levels of physical activity can have a negative impact on health and quality of life. Recreational activities can overcome this disadvantage and provide physiological and social benefits as well as psychological improvements in quality of life (Güzel et al., 2020:123,130).

The concept of therapeutic recreation is multifaceted and has been defined in a variety of ways. According to Peterson and Stumbo, the term "therapeutic recreation" refers to the process of engaging in recreational activities that are instrumental in realizing desirable changes in the physical, emotional, and social aspects of individuals (Peterson ve Stumbo, 2000: 56; cited in Öztürk Karataş & Karataş, 2022:103). TR is carried out for the purpose of integration and adaptation to society for individuals who are characterised as sick, elderly and with special needs, who have been in prison and who have been released from prison. It also plays a preventive role for substance abusers and individuals who are prone to crime (Austin & Crawfor, 2001; cited in Karaküçük, 2012:22). As a tool for psychological and physical health, recovery and well-being, TR is a systematic process that uses recreation and other activity-based interventions to meet the needs of people with illnesses and/or disabilities (NCTRC, n.d.). Recreational therapy aims to restore, improve and rehabilitate a person's level of functionality and independence in life activities, promote health and well-being (ATRA, n.d.).

TR can be defined as a specific process that leaves a positive impact or acts as a shield in an area of life, health, functional ability and overall quality of life, covering every individual who can benefit in this sense and using recreation as a method (Carter & Van Andel, 2019:6). TR is the maximisation of overall health, well-being and quality of life by using and increasing leisure (Austin, 2013; cited in Kural, 2022:24). Improving mental health, getting rid of the monotonous flow of life, busy days in business life, providing physical, mental, social and psychological renewal are some factors that direct individuals to leisure activities (Çetiner, 2019). In the light of these definitions, it can be said that TR is tailor-made leisure practices that provide individuals with a state of well-being or functionality in a holistic sense, serve the purpose of reducing negativity and protecting/ improving quality of life, provide a more positive outlook on life and increase spirituality. In the context of the relevant literature, individuals within the therapeutic recreation domain are shown in Figure1.
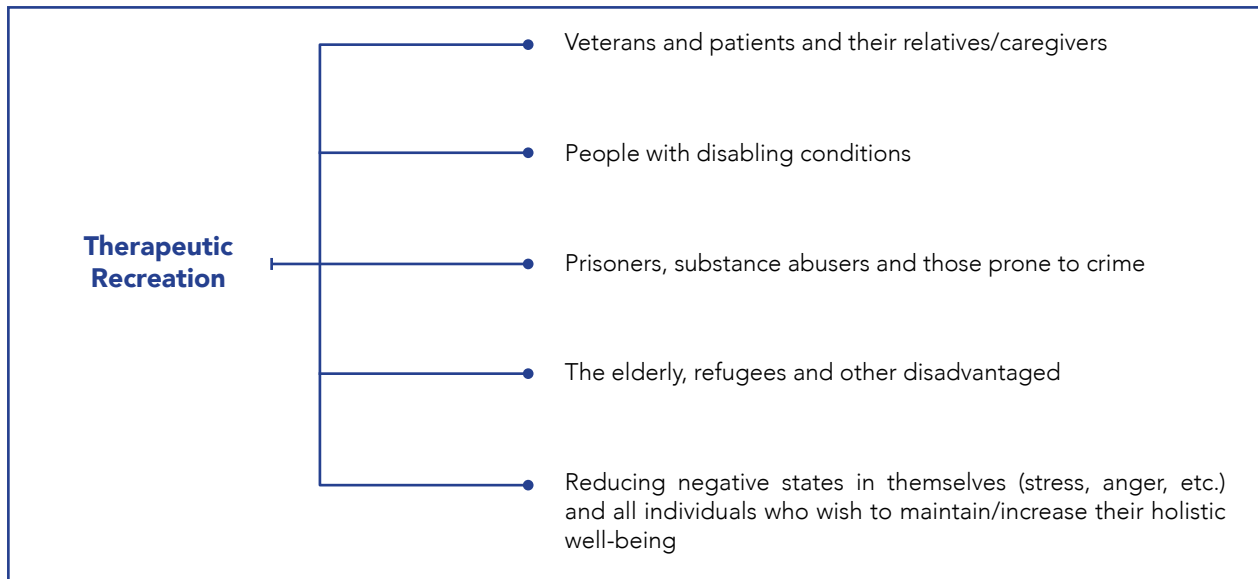
Figure 1. People for Whom Therapeutic Recreation Can Be Used
The figure was developed by the authors in accordance with the pertinent literature.

The participants of this study, the students, fall into the group at the bottom of the list in Figure 1. According to Carter & Van Andel, recreational experiences strengthen self-image and support development by helping individuals achieve their goals (Carter & Van Andel, 2019). These activities increase participants' attention, calmness, confidence, and cheerfulness, and reduce fear and sadness (Vella et al., 2013). TR also increases the capacity of individuals to generate positive emotions and behaviors. In addition to encouraging individuals in the opportunities and struggles they face in their lives, it also has a positive effect on individual well-being (Çakırlar & Yaman, 2022). The research addresses the following problems and sub-problems in the following manner:

1. Does participation in TR interventions result in an improvement in the quality of life of the individuals concerned? (Including sub-dimensions).

2. Does participation in TR practices affect participants in terms of mental well-being?

3. Does participation in TR practices affect self-esteem? (Including sub-dimensions).

4. To what extent are the dependent variables and their sub-dimensions related to each other?

Method

This section outlines the methodology employed in the research project, which was conducted to assess the impact of therapeutic recreation practices on second-year students enrolled in the Department of Preschool Teaching. The study aimed to evaluate the effect of these practices on the quality of life, mental well-being, and self-esteem of the participants. Additionally, it sought to examine the relationships between the variables utilized and to assess the influence of these practices on individuals experiencing stress. During these processes, the support

of an associate professor in the field of educational sciences was obtained, and sensitivity was shown in carrying out the study within the framework of ethical values. The model, study group, data collection tools, design and implementation of the practices, data collection process, and analysis of this research are presented in this section.

Study design

This research was conducted in accordance with a sequential explanatory mixed-methods design. Creswell & Creswell posits that in a sequential explanatory mixed method design, quantitative data are initially collected and analysed. The data obtained provide insight into the questions that should be posed to participants in the subsequent qualitative phase. In this design, qualitative data serve to elucidate the nuances of quantitative data, and thus it is crucial to establish a coherent link between the two. The research must consider which quantitative data will be followed and from which participants qualitative data will be obtained. Furthermore, it is essential to collect quantitative and qualitative data from the same people and analyse the results in depth. The most significant aspect of this design is the detailed explanation of the interaction between variables through the utilisation of qualitative data. Qualitative questions are typically posed in the form of general and open-ended prompts. The results of the quantitative and qualitative follow-up are presented and interpreted in the discussion section. This section will examine the ways in which qualitative data contributes to the expansion and elucidation of quantitative data. It is not advisable to make a direct comparison with the overall results from the quantitative and qualitative databases (Creswell & Creswell, 2018).

The quantitative data pertaining to the second-year preschool students, who had been previously divided into two groups, were subjected to analysis. The results demonstrated that there was no significant difference in the quality of life, mental well-being and self-esteem scales and their sub-dimensions between the two groups, as determined by the unrelated samples t-test. Additionally, the data on age, gender and income levels of the participants showed a highly similar distribution between the groups. Accordingly, the groups were deemed to be equivalent for the purposes of the study, eliminating the need for further group matching. In other words, the groups were found to be suitable for the equivalent groups required for the quasi-experimental design. As defined by Büyüköztürk et al., group matching entails the formation of two groups whose group means are equivalent in terms of the relevant variables. This matching method may be employed when it is necessary to work with pre-existing groups (Büyüköztürk et al., 2022). In light of these findings, it was concluded that the experimental phase of the study was appropriate for a quasi-experimental group matching design with a pretest-posttest control group. Subsequently, one of the groups was selected, and the implementation of therapeutic recreation activities, which constituted the independent variable in the research, commenced.

Once the quantitative data had been collected and analysed, an examination of the data was conducted in order to ascertain its qualitative dimension. Prior to the initiation of the interventions, a comprehensive needs analysis was conducted among the participants. The subsequent sections provide a comprehensive exposition of the aforementioned needs analysis. The aforementioned needs analysis, which was developed by various experts, was used to collect data on the leisure time utilization patterns of the participants and the stressors they experienced. In the needs analysis, qualitative data were collected from the entire experimental group due to the presence of stress indicators among the participants and the limited number of individuals involved. In preparing the interview form, the item averages derived from the analysis of the scales were subjected to examination. The statements with the lowest and highest item averages in the scales were subjected to further analysis, and the interview questions were prepared with the assistance of experts. According to Akman Dömbekci and Erişen, unstructured interviews are interviews that involve the collection of in-depth information and a high level of flexibility in the interview process (Akman Dömbekci & Erişen, 2022). As posited by Büyüköztürk and colleagues, unstructured interviews are interviews that provide freedom in the items to be asked about the subject. The questions and their order can change in the process when desired, offering a rich data collection opportunity with open-ended questions. The interview questions were designed to ensure that no single question comprised more than one element, that no two opposing questions were combined within a single question, that no leading questions were posed, and that no questions were formulated in a way that made judgments from the outset (Büyüköztürk et al., 2022).

Design and implementation of applications

In total, 13 interventions were implemented over a period of 3 months, usually 1 day a week for 30-90 minutes. By analyzing the data obtained from the participants in the needs analysis, the most appropriate practices were designed for the experimental group. In this sense, it was also studied which intervention would be TR for the participants of the study. The applications were developed and implemented with careful consideration of their alignment with the established definition and characteristics of therapeutic recreation. Data from the needs analysis and the opinions of experts in the fields of educational sciences, tourism and recreation were taken into account to design the most appropriate applications. The interventions were designed with a focus on the following themes: music and poetry therapy, drama, creative writing, painting, nature, play, social skills, mindfulness, insight and empathy. In his study, Dr. Yokuş investigated the cinematographic experiences of participants. One of the participants in the study compared cinematographic experience to a therapist's chair. The reason for this is that this chair leads us to a new world of meaning, allows us to leave the obstacles that we limit ourselves to outside of our dreams (Yokuş, 2020). In addition to the previously emphasized therapeutic recreation activities, this study also included a short cinematographic experience with the objective of fostering a more meaningful outlook on life among the participants. According to Avşaroğlu and Okutan, optimism appears to be a factor associated with meaningful connect in life. It can be posited that optimism plays a role in the development of psychological resilience (Avşaroğlu & Okutan, 2018). In this context, it was thought that cinematographic experiences aiming to develop the skill of looking at life more meaningfully would create optimism in individuals, and through this optimism, their mental well-being would improve.

Dataset

In the study, one of the purposive sampling approaches, namely criterion sampling, was employed. As defined by Büyüköztürk et al., purposive sampling refers to the selection of situations that contain rich information, with the objective of advancing the research in question. This approach permits an exhaustive examination of the subject matter. This approach may be employed in the investigation of

participants who meet specific criteria or possess particular characteristics (Büyüköztürk, 2022). In criterion sampling, individuals who meet the specified criteria are subjected to examination. This sampling method has the potential to enhance the quality of monitoring ongoing programmes (Patton, 2002). For the participant groups, it was taken as a criterion that they did not show a scientifically significant difference in terms of the dependent variables of the research and that the individuals showed high similarity in terms of demographic data. In the individual sense, the criterion was that the participants experienced stress or used their free time for limited activities. Given the multifaceted nature of the teaching profession, it was hypothesized that students enrolled in the teaching department might encounter anxiety in this field. To address this, a needs analysis was conducted on preschool 2nd grade students. The reason for choosing 2nd graders is the assumption that their limited knowledge about their field may cause stress. Since TR practices should be aimed at all individuals, it may be more possible to reach groups that meet the criteria, and since it was determined in the needs analysis that they experience academic anxiety, communication problems, exam stress, etc., pre-school teaching department 2nd grade students were selected as the participant group. Figure 2 presents a research model and provides a comprehensive account of the research process.
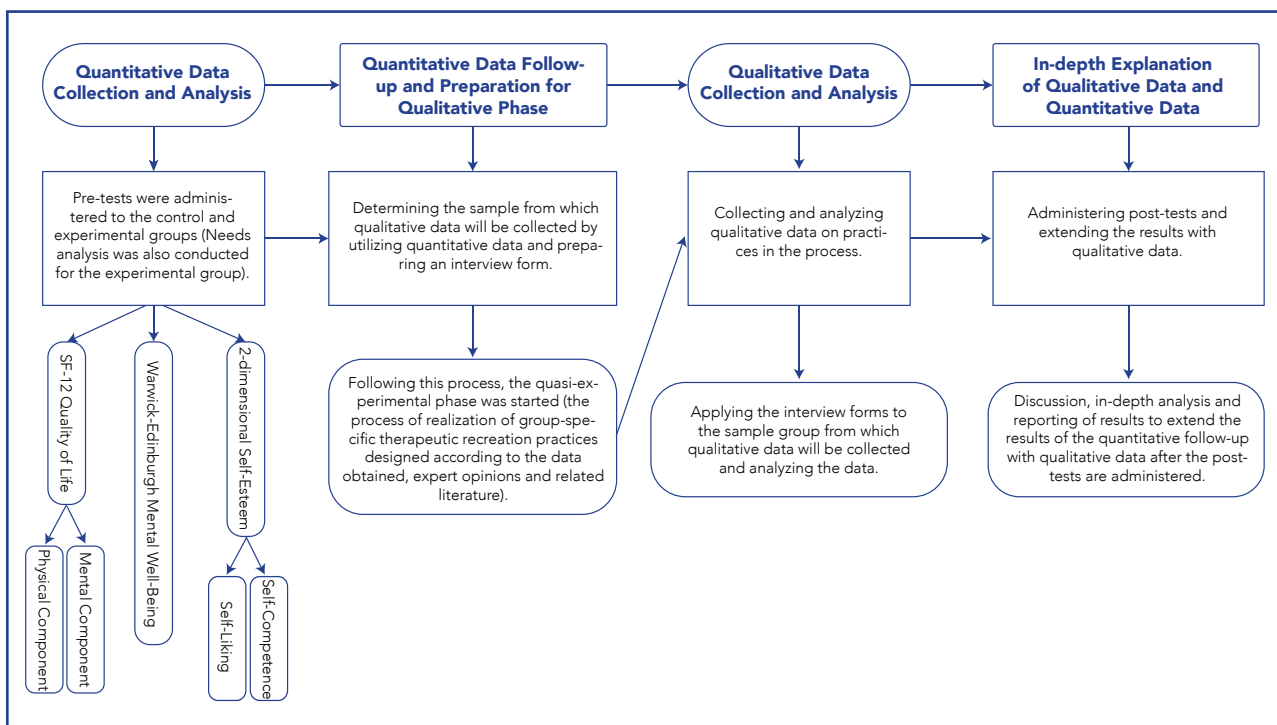
Figure 2. Research Model
Source: The authors developed the design in accordance with Creswell & Creswell's sequential explanatory mixed design.

Data collection process and analysis

The data were collected over a period of four months (between February and May 2024). The data obtained from the needs analysis developed by an academic from the field of psychological counseling and guidance and completed with the contributions of academics from the fields of recreation and educational sciences, and the interview forms applied simultaneously with the practices were analyzed using MAXQDA software. Also a notebook was used for content analysis of qualitative data. Mental well-being, self-esteem and quality of life scales were administered twice, at the beginning and at the end of the process, and analyzed using SPSS statistical analysis software.

Data collection tools

The SF-12 Quality of Life Scale, the 2-Dimensional Self-Esteem Scale and the Warwick-Edinburgh Mental Well-Being Scale were administered at the pretest and posttest stages of the study. The rationale for selecting these variables for investigation is that the scales encompass attributes that are likely to be relevant to the majority of individuals. Upon analysis of the reliability of the three scales, it was determined that the Cronbach alpha internal consistency coefficient exhibited a value above 0.81 in all three, and that all three demonstrated a normal distribution. Furthermore, a needs assessment form was employed. As the study progressed, data were collected on two occasions from the participants via a form containing the interview questions identified following the pre-tests.

Warwick-Edinburgh Mental Well-Being Scale

The scale developed by Tennant et al. in 2007 was adapted into Turkish by Keldal. The scale consists of 14 items with 5-point Likert-type options and high scores indicate high mental well-being. Cronbach's Alpha internal consistency coefficient is 0.92. (Keldal, 2015).

SF-12 Quality of Life Scale

SF-12 was developed by Ware et al. in 1995. Its Turkish adaptation was conducted by Soylu and Kütük in 2022. SF-12 consists of two subcomponents, physical (FIM-12) and mental (MBS-12), and 12 items. Higher scores represent better health. Cronbach's alpha coefficients for the physical and mental components of the scale are satisfactory at 0.73 and 0.72, respectively (Soylu & Kütük, 2022).

2 Dimensional Self-Esteem Scale

The Self-Esteem Scale, which consists of two sub-scales, Self-Liking and Self-Competence, was developed by Tafarodi and Swan in 2001. The Turkish version was adapted by Doğan in 2011. There are 16 Likert-type items in total. Cronbach's Alpha internal consistency coefficient was 0.83 for the Self-Liking sub-dimension and 0.74 for the Self-Competence sub-dimension. Higher scores indicate better self-esteem (Doğan, 2011).

Needs assessment analysis and questions prepared for qualitative data

Three associate professors, specialising in the fields of counselling and guidance, recreation and educational sciences, were instrumental in the formulation of the seven-item questionnaire designed to ascertain the needs of individuals. The questions were designed to ascertain whether the participants had experienced anxiety recently, the activities they engage in during their leisure time and in situations of stress, their concerns about their field of study and the factors that cause them stress. The data pertaining to the responses received were then subjected to coding. The codes with a minimum of two occurrences are presented below.

Upon examination of Figure 3, the sub-codes pertaining to the activities pursued by the experimental group members during their leisure time, including those engaged in for relaxation, were collated and regrouped under the heading of leisure time evaluation forms. The analysis of the codes revealed that physical activities were the most frequently performed activities. Subsequent to physical activities, social, visual, artistic, and mental activities were observed to occur with lesser frequency.
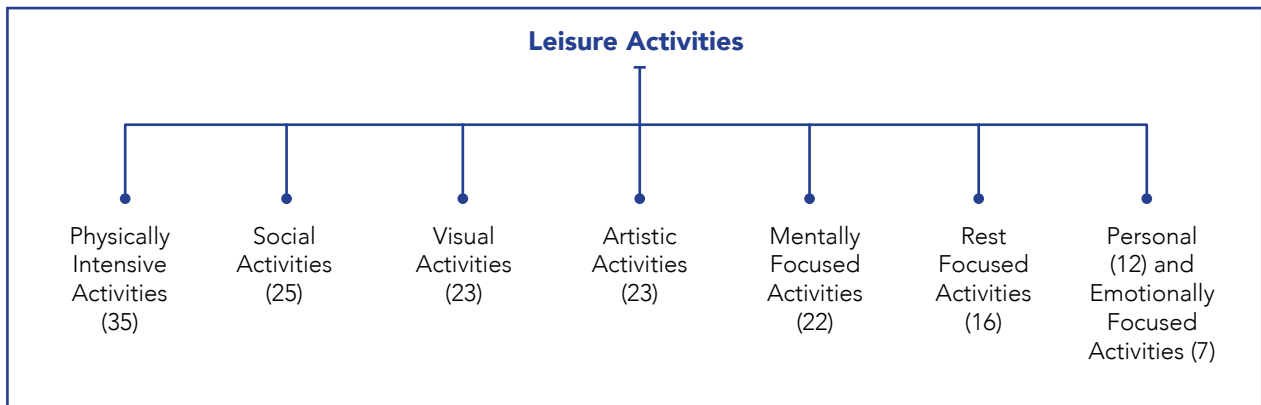
Figure 3. Leisure Time Utilization Patterns of the Experimental Group

As illustrated in Figure 4, the codes for the three factors that have recently been identified as the most stressful for the experimental group are academic success, relationships and communication, and future anxiety.
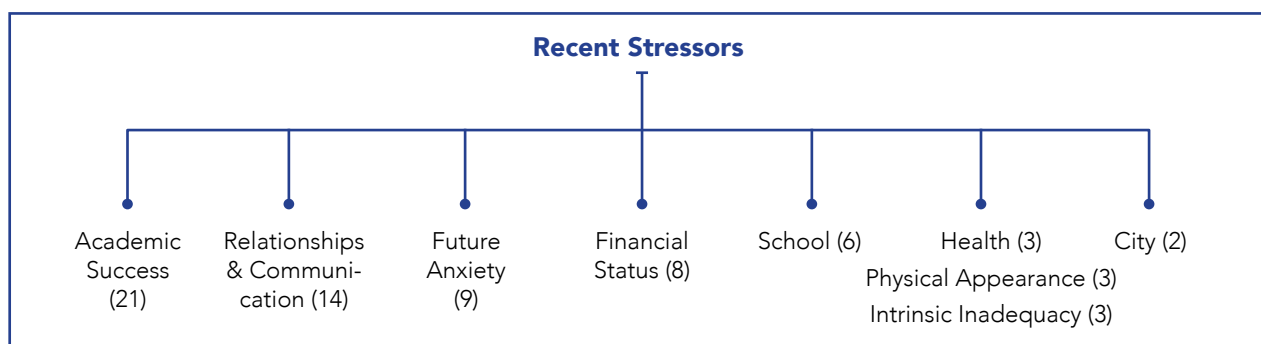
Figure 4. Recent Stressors in the Experimental Group

When Figure 5 is analyzed, the factors that caused the most anxiety among the individuals in the experimental group about the teaching profession they intend to do in the future were collected in

Concerns About Future Profession

| Communication with Children (13) | Lack of Self-Confidence (13) | Personal Characteristics (9) | Children's Health (5) | Environment (5) | Fatigue and Unwillingness (4) |
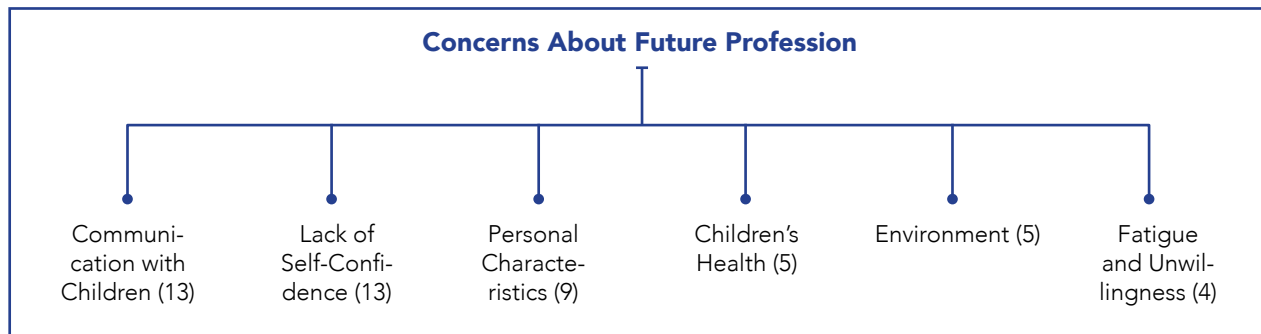
Figure 5. Their Concerns about the Teaching Profession They Want to Do in the Future

the codes of communication with children, lack of self-confidence and personal characteristics. An interview form was prepared to measure the effects of the practices during the process. The prepared questions were applied 2 times in total. The questions were designed to reveal their interest in the practices, the effect of the practices on reducing stress and struggling with difficulties, how they reflected on motivation in their daily work, which emotional and mental states emerged, which practice they liked the most, and how they felt more valuable after the practices. The content analysis of the data obtained is explained in the findings of the study.

Findings

Quantitative findings of the study

Upon analysis of the demographic data of the study group, it was observed that 87% of the experimental group was female, with 91.3% of them falling within the age range of 19-23. In addition, 100% of the experimental group were single and 95.7% had a monthly income of less than 10,000. In comparison, the control group exhibited similar characteristics, with 91.3% of them being female, 95.7% within the age range of 19-23, and 100% single with a monthly income below 10,000. Additionally, the mean age of the control group was determined to be 20.7 years, while that of the experimental group was found to be 21.3 years. The data indicate that the two groups are similar in terms of their demographic characteristics. Table 1 details the data.

Table 1. Demographic Characteristics of the Study Group

		Experimental G.		Control G.		Total	
		n	%	n	%	n	%
Gender	Female	20	87	21	91,3	41	89,1
	Male	3	13	2	8,7	5	10,9
Age	18-23	21	91,3	22	95,7	43	93,5
	24-26	2	8,7	1	4,3	3	6,5
Marital Status	Single	23	100	23	100	46	100
	Married	0	0	0	0	0	0
Monthly Income	10.000 & below	22	95,7	23	100	45	97,8
	Turkish Lira (TL)	1	4,3	0	0	1	2,2

G.; Group.

The pre-test data pertaining to the scales and sub-dimensions employed in the experimental and control groups were subjected to an independent samples t-test for analysis. In his study, Callak expressed the p values as (p<0.05), (p<0.01) and (p<0.001), which indicate whether the difference between the group means is statistically significant. The smaller the number on the right side of the comma, the smaller the unit error number (Callak, 2020:152). Given that the p-values derived from the t-test for unrelated samples exceed 0.05, it can be concluded that no statistically significant difference exists between the pre-test averages of the groups. Furthermore, all observed differences are less than 1.91, indicating that the groups are equivalent in terms of the dependent variables at the pre-test stage. Table 2 details the data.

Table 2. Independent Samples T Test Results (Pre-Test)

	Levene's Test for Equality of Variances		t-test for Equality of Means			
	F	Sig.	t	df	Sig.(2)	Mean Diff.
Life Quality Physical Comp.	,311	,580	-,443	44	,660	-,96
Life Quality Mental Comp.	,023	,880	,506	43,3	,615	1,49
Mental Well-Being	,209	,650	-,264	44	,793	-,73
Self Esteem	,785	,381	-,646	44	,521	-1,91
Self-Liking	,400	,530	-,812	44	,421	-1,47
Self-Competence	,994	,324	-,294	44	,770	-,43

N1= 23, N2=23, Comp.; Compenent.

The dependent samples t-test for the pre-test and post-test of the scales applied to the groups revealed no significant difference, as the significance value for the data belonging to the control group was greater than 0.05. Upon examination of the pre-test and post-test averages of the experimental group, it becomes evident that a statistically significant difference exists. This is evidenced by the significance values for the mental component of quality of life, mental well-being, self-esteem, self-liking and self-competence, which are sub-dimensions of self-esteem, falling below the p<0.01 threshold. No significant difference was identified in the physical component of quality of life. The effect sizes pertaining to the significance of the observed characteristics are calculated and presented in the table. The highest level of statistical significance was observed in the domain of mental well-being, with a p-value of 0.000 and a d-value of -1.130. Table 3 details the data. Independent samples t-test was used to analy-

Table 3. Paired Samples T Test Result (Pre-Test & Post-Test)

	Groups	Mean	S	df	t	d	Sig.(2)
Life Quality Physical Comp.	Experimental Group	-2,11	6,34	22	-1,601	-,333	,124
	Control Group	-,23	9,29	22	-,121	-,025	,905
Life Quality Mental Comp.	Experimental Group	-7,44	11,69	22	-3,055	-,636	,006**
	Control Group	-3,03	10,33	22	-1,407	-,293	,173
Mental Well-Being	Experimental Group	-8,60	7,61	22	-5,422	-1,130	,000**
	Control Group	-1,65	9,78	22	-,810	-,168	,427
Self Esteem	Experimental Group	-5,04	6,93	22	-3,490	-,727	,002**
	Control Group	-,17	4,91	22	-,170	-,035	,867

Self-Liking	Experimental Group	-2,60	4,38	22	-2,852	-,594	,009**
	Control Group	,17	4,01	22	,208	,043	,837
Self-Competence	Experimental Group	-2,43	3,35	22	-3,480	-,725	,002**
	Control Group	-,34	2,80	22	-,594	-,123	,558

N1= 23, N2=23, ** p<0,01, S; Standart Deviation.

se the post-test data relating to the scales and sub-dimensions of the scales used in the study. The relevant values created by considering the p values of Levene's Test are shown in Table 4. Given that the p-value derived from the independent samples t-test was less than 0.05 for the mental component of quality of life and less than 0.01 for mental well-being, a statistically significant difference was identified. An effect size (d) of 0 indicates that the means are equal. Values such as d = 0.2, d = 0.5, and d = 0.8 are considered to be small, medium, and large effects, respectively (Green & Salking, 2005:169; cited in Can, 2013:121). The effect sizes pertaining to the discrepancies were calculated and presented in Table 4. The effect size of the significant differences was d=0.609 (medium level) for the mental component of quality of life and d=0.899 (high level) for mental well-being. Table 4 details the data. The results of

Table 4. Independent Samples T Test Results (Post-Test)

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	d	df	Sig.(2)	Mean Diff.
Life Quality Physical Comp.	,613	,438	,402	,118	44	,690	,92
Life Quality Mental Comp.	2,058	,158	2,067	,609	44	,045*	5,90
Mental Well-Being	2,591	,115	3,049	,899	44	,004**	6,21
Self Esteem	,001	,982	1,057	,311	43,9	,296	2,95
Self-Liking	,381	,540	,793	,233	44	,432	1,30
Self-Competence	,024	,877	1,129	,332	43,9	,265	1,65

N1= 23, N2=23, **p<0,01, *p<0,05, Comp.; Compenent, Mean Diff.; Mean Difference.

the simple linear correlation analysis, which was conducted to ascertain the relationships between the scales and sub-dimensions in the study group, are presented in Table 5. The results of the correlation analysis indicate that there is a moderate, positive, and statistically significant relationship between the mental component of quality of life (QoL) and mental well-being (MWB) (r = .516, p < 0.01). The coefficient of determination (COD) is 0.26. A moderate, positive, and significant relationship is observed between LQM and self-esteem (SR) (r=,347, p<0,05, cod=0.12). A moderate, positive, and significant relationship is observed between LQM and self-liking (SL) (r=,357, p<0,05, cod=0.12). A moderate, positi-

ve, and significant relationship is evident between MWB and SR (r=,648, p<0.01, cod=0.41). A moderate, positive, and significant relationship is evident between MWB and SL (r=,609, p<0.01, cod=0.37). A moderate, positive, and significant relationship is evident between MWB and self-competence (SC) (r=,556, p<0.01, cod=0.30). A strong, positive, and significant relationship is evident between SR and SL (r=,912, p<0.01, cod=0.83). A strong, positive, and significant relationship is evident between SR and SC (r=,889, p<0.01, cod=0.79). A moderate, positive, and significant relationship was observed between SL and SC (r = 0.623, p < 0.01, cod = 0.38). Qualitative findings of the study

Table 5. Correlation Analysis of Scales and Sub-Dimensions

Scales	Mean	S	1	2	3	4	5	6
1. Life Quality – Physical Comp.	50,9	7,7	-					
2. Life Quality – Mental Comp.	40,8	10	,153	-				
3. Mental Well-Being	51,3	7,5	,274	,516**	-			
4. Self Esteem	54,1	9,4	,193	,347*	,648**	-		
5. Self-Liking	28,5	5,5	,185	,357*	,609**	,912**	-	
6. Self-Competence	25,6	4,9	,162	,264	,556**	,889**	,623**	-

N=46, ** p<0,01, * p<0,05. Comp.; Components, S; Standart Devition.

Qualitative findings of the study

In the process, the interview form was applied to the experimental group twice. There were 5 questions in the first form and 9 questions in the second form, and the first 5 questions consisted of the same questions. When the codes created are examined; it is seen that the group's level of interest in the practices is mostly high (a=23), the contribution of the practices to the struggle of the individuals in the group with life is mostly good (b=23) and the effect of the practices on reducing the stress of the individuals in the group is mostly good (b=20). Figure 6 details the data.

Interest in Activities

d	c	b	a
(4)	(3)	(12)	(23)

The Contribution of the Activities to Dealing with Life

e	d	c	b	a
(4)	(4)	(3)	(23)	(6)

The Effect of Activities on Reducing Stress

f	e	d	b	a
(2)	(4)	(7)	(20)	(8)

Letter meanings: a: high - b: good - c: medium - d: low - e: neutral - f: bad
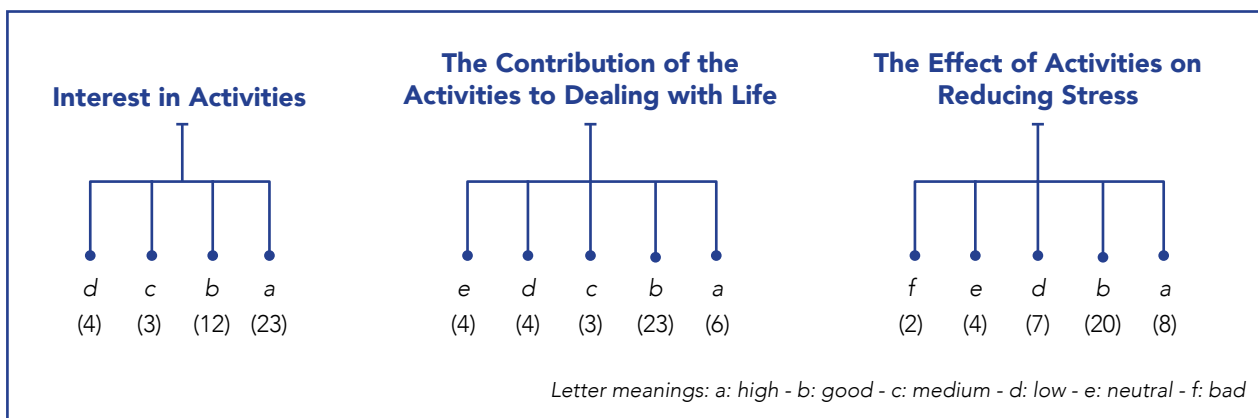
Figure 6. Interest in Activities, Contribution of Activities to Struggle with Life and Effect of Activities on Stress Reduction

Upon analysis of the codes created for the effect of the applications on the emotional state, as illustrated in Figure 7, it becomes evident that the highest code values pertain to the enhancement of happiness (30), entertainment (7), and awareness (5). Upon examination of the codes created for the
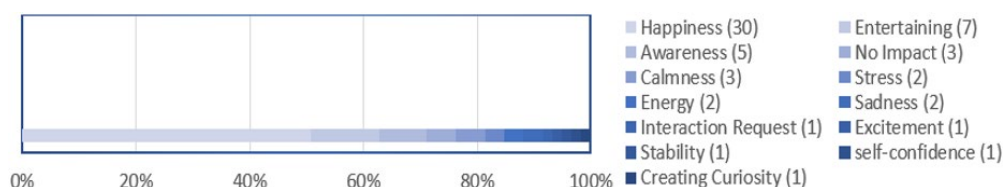
Figure 7. Emotional and Mental States that the Practices Elicit

mental, spiritual and social effects of the practices, it becomes evident that the highest code values are general positive effects (12), resting and relaxing (6), developing insight (5) and increasing awareness (5). Figure 8 details the data.
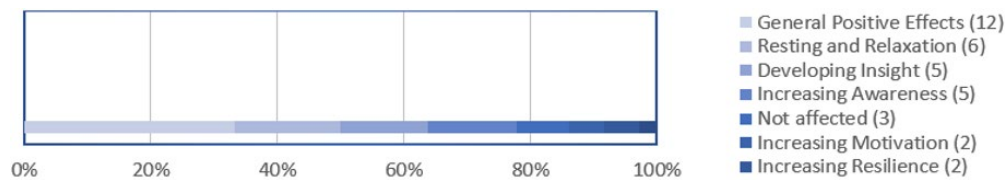
Figure 8. Mental, Spiritual and Social Effects of Practices

Upon analysis of the remaining data, it was determined that the most popular application was one that pertained to the themes of poetry, old age, and awareness. The highest-ranking codes in the set of codes created for the other questions are as follows: 1) The applications provide motivation for me in my daily work. 2) The aforementioned practices engendered a sense of value. 3) It would be beneficial to implement these practices on an annual basis, as it would positively impact my morale.

Discussion

The objective of this study is to evaluate the impact of three-month-long TR practices on second-year students enrolled in the Department of Preschool Teaching in terms of quality of life, mental well-being, and self-esteem. Additionally, the study aims to examine the relationships between the variables employed and to assess the effects of these practices on individuals experiencing stress. By comparing relevant literature and quantitative-qualitative data, the findings from the applications were discussed through the research questions.

1. Does participation in TR interventions result in an improvement in the quality of life of the individuals concerned?

Following the implementation of therapeutic recreation practices among the student cohort, no notable enhancement was discerned in the physical domain of quality of life across both groups. The only area in which the experimental group did not exhibit a statistically significant difference in the dependent relations t-test was the physical component of quality of life. This may be indicative of an increase in the accuracy of the characteristics measured in the study. As no focus was placed on physical development in the study, With regard to the mental component of quality of life, the dependent relations t-test revealed no significant difference between the control and experimental groups. Furthermore, the independent samples t-test of the post-tests revealed a significant difference in the mental component of quality of life between the experimental and control groups, with the former exhibiting a higher score. The content analysis results indicate that the mental, spiritual and social effects of the practices are predominantly positive, restorative and relaxing. In accordance with the aforementioned evidence, it can be concluded that TR practices enhance the qu-

ality of life. In addition, the following examples from the literature demonstrate similar outcomes:

Cerit et al. conducted a 1-week TR program that included various practices for mothers with children with autism. As a result of the research, it was determined that the depression symptoms of the mothers decreased and their quality of life increased (Cerit et al., 2022). Community-based TR and an adapted sports program applied to individuals with disabilities positively affect quality of life and general health. It also improves the quality of social life (Zabriskie, 2005). TR practices can be beneficial for self-esteem and quality of life in elderly patients (Kordi et al., 2019). Especially after secondary education, students can be supported in mental health with awareness-themed recreational activities (Litwiller et al., 2022).

In the course of the interview, the student articulated a series of statements that serve to substantiate the assertion that there has been a notable enhancement in the mental dimension of quality of life. The following list provides an overview of the aforementioned sentences:

C054: Mentally, my mood has improved in a positive way, as if I was immersed in a deep thought. I have a more positive and smiling face whereas before I had a sullen face. The speeches and motivating words we have made in the activities come to my mind during the day and motivate me and make me feel positive emotions. My stress level has improved and I have become aware of some things and realized that I shouldn't worry and stress so much.

2. Does participation in TR practices affect participants in terms of mental well-being?

The results of the dependent relationships t-test for the mental well-being scale applied in the study show no statistically significant difference in the control group, while it shows a significant difference in the experimental group. The effect size, calculated as a result of the test (d = -1.130), indicates that this difference is at a very large level. The independent samples t-test for the post-tests revealed a statistically significant difference in mental well-being between the experimental and control groups, with the former exhibiting higher levels of well-being. The content analysis revealed that the practices in question possess characteristics conducive to fostering positive states, relaxation, awareness, and enhanced insight. In accordance with the aforementioned evidence, it can be concluded that TR practices

enhance mental well-being. In addition, the results of this study are consistent with the results of another study using similar applications and obtaining similar results:

Music therapy practices for university students and their parents can bring a calm mind and relaxation (Yücesan & Şendurur, 2018). Participation of disabled individuals' trainers in activities to evaluate their free time positively affects their mental well-being levels (Yüksel, 2023). There is a moderate, positive and significant relationship between recreation experience and psychological well-being (Akova et al., 2019). Mindfulness and self-competence-based interventions for undergraduate students can increase psychological well-being (Klainin-Yobas et al., 2016).

In the course of the interview, a number of students articulated their support for the increase in the level of mental well-being, citing the significant difference it would make to their lives. Their statements are as follows:

Y005: I think we would be happier if activities that provide psychological support in addition to the lessons continued. I used to fall psychologically in every difficult situation, but now I have a more positive approach.

N062: My mind was relaxed. It was like I was very tired and I was resting.

C054: I have come to the conclusion that no matter how negative situations are, there is always a way out and that I can be motivated even in a difficult situation where the spirit of struggle is closest to us.

S047: I think my mind rested a little bit. I can say that I affected it in a good way.

3. Does participation in TR practices affect self-esteem?

The results of the dependent relations t-test for the self-esteem scale and its sub-dimensions applied in the study demonstrate no statistically significant difference in the control group. However, they indicate a significant difference in the experimental group. In light of these findings, it can be posited that TR practices exert a beneficial influence on self-esteem, self-liking and self-competence, as evidenced by the significant discrepancy between the pre-test and post-test averages of the experimental group. In addition, the literature provides several examples of similar applications and outcomes, as follows:

Group recreation therapy practices are effective in increasing life satisfaction and decreasing depression in elderly individuals and can increase self-esteem (Kim, 1999). There is a relationship between the increase in self-esteem and the decrease in depression level. TR practices can help to increase self-esteem and reduce depression in elderly individuals (Huycke, 2014). The practices can be beneficial for self-esteem in elderly patients (Kordi et al., 2019). Outdoor nature-based TR practices that improve ps-

ychological well-being help individuals with mental illness to improve their intrinsic motivation, purposeful outlook on life, and self-esteem, as well as to cope with difficulties (Picton et al., 2020). Poetry writing and creative drama activities can reveal individuals' sense of accomplishment. Poetry therapy, music therapy and creative drama practices are effective methods to increase self-esteem (Yücesan & Şendurur, 2018).

N019: The activities gave me self-confidence, determination and a positive outlook. It made me look at life more positively. It increased my belief that I can do better. We should do what we want while it is not too late and we are still young to do things.

R010: I think more about things now, I don't just run away and isolate myself.

E037: I definitely felt that I was a conscious individual and it made me feel valuable.

E059: Valuing and listening to my ideas made me feel valuable

In the results of the post-tests applied to the groups, it was observed that the average of the experimental group was higher in self-esteem and its sub-dimensions for the independent samples t-test, but no significant difference was found. Given that the initial needs analysis indicated low self-esteem and high future anxiety, it is possible that a three-month programme may have been insufficient to facilitate improvements in these areas.

Some of the participants indicated that they experienced stress during the initial stages of the practices and asserted that they were not affected by the practices themselves. Upon analysis of the qualitative data, it became evident that the stress experienced by individuals was a consequence of the emergence of new emotions and heightened self-awareness. Two participants provided the following statements:

M048: I can say that it increased my stress. Because it made me realize myself. This situation caused me to get a little tense.

G048: I don't think there has been any change.

These data are included in the interview forms after the second administration of the study. In other words, these are the words expressed at the beginning of the interventions, when individuals' emotions were just emerging. The same question was asked again in the qualitative data collected during the last practices of the research and no negative answer was found. In this sense, although the practices caused some stress in the individuals' confrontation with themselves, this situation is a transitional process and does not express any negativity.

Another interesting data of the study is the improvement of the social skills of the participants. TR practices can play an effective role in improving individuals' self-expression skills. The participants' opinions

supporting the relevant data are as follows:

Ş003: I found the opportunity to express myself more easily.

B045: This game made me realize how I can express myself.

Focusing on the qualitative data of the study, it was found that TR practices were very interesting for the majority of the participants. It can be said that the practices played an effective role in increasing the will to struggle with life, increasing motivation for daily tasks and reducing stress. In addition, the majority of the experimental group stated that the practices made them feel valuable and that they wanted to repeat them every year. In all these data, there are also a few negative statements, as shown in Figure 6, Figure 7 and Figure 8. However, the positive statements are clearly in the majority. In this context, it can be said that the need for TR practices in universities has emerged. There are student opinions that support this conclusion. Some of the answers to the question "Should the activities take place every year?

R010: Yes, because I feel we are breathing, we are having a fun and different process for ourselves in the chaos of classes and life.

Ş003: Yes. I wish there were more of them. I used to like Fridays very much, and thanks to these activities, I liked them even more. The different activities every week and our teachers' interest in us were very good for me. I found the opportunity to express myself more easily.

S047: I think it is good to do it this semester because we are in a busy and lecture-filled semester and I think these activities are good to stop and take a breather. I don't know if it can be done every year, but it would be nice to do it in between.

In the observations made during the research process, there is data to show that therapeutic recreation practices are meaningful and valuable to participants. Some data on the effect of the practices on emotional processes are as follows:

GN01: Two days ago I had a negative situation in my life and it was very good for me to participate in such an event.

GN02: Today was the last one of our weeks-long event. It was very valuable and beautiful for us. Thank you for everything.

GN03: It was meaningful for me. I will miss you, teacher.

It can be seen that the TR practices reveal students' feelings about making sense of life and looking at life with hope. In the creative writing activity about trees, one student's hopeful words, reflecting her own feelings, are as follows:

GN04: Hello, beautiful tree. I know, you are very tired and they broke your branch. Whether you dry up and your leaves wither or you blossom and turn green, whatever happens, you are very special and precious. Sunny days will surely be with you one day, if not today. Just don't lose your life energy and don't be afraid of making mistakes. The pain you feel today will be the strength you feel tomorrow.

The impact of therapeutic recreation practices on individuals is manifold. A review of the literature reveals a broad range of applications for these practices, as evidenced by studies conducted by Buettner et al. (1996), Walker & Pearman (2009), Koçak (2016), Bor (2018), Yozcu et al. (2019), Uzun Dönmez (2019), Carbone et al. (2021), Genoe et al. (2024), Hanlon et al. (2024) and Yousiph et al. (2024).

Conclusion and Recommendations

This study, which examines the effect of therapeutic recreation practices on the quality of life, mental well-being, self-esteem and stress levels of preschool students and analyses the relationship between the variables, contributes to the literature by offering a different perspective to the literature and drawing attention to a number of important pieces of information with the significant differences found. The data obtained from the research shows that therapeutic recreation practices can be used as an effective method to increase the well-being of preschool students and enable them to cope with stress in daily life. In addition, the research also shows the need to implement therapeutic recreation practices that can be used in indoor and outdoor areas with a sustainable programme in universities.

The results of the study show that the TR practices had a positive impact on the students' quality of life. The practices led to an increase in the mental component of quality of life. In addition, TR practices significantly increased students' mental well-being. The effect size of the difference in mental well-being was found to be very large. In this sense, it can be said that TR practices are an effective method in providing mental relaxation and reducing psychological negativity. In addition to the positive effect on students' self-esteem, the practices also had a positive effect on their self-liking and self-competence perceptions in the sub-dimensions. Qualitative data from the study also supports this information. In the light of this information, it can be said that therapeutic recreation practices carried out with 2nd year students in the Department of Preschool Education increase quality of life, psychological well-being and self-esteem.

It can be said that the practices played an effective role in revealing the emotions of individuals and getting to know themselves. The results of the qualitative data analysis show that TR practices reduce stress, provide happiness, create a positive outlook, increase awareness, provide rest and relaxation, are effective in developing insight and motivation, inc-

rease energy by providing a fun environment, and sometimes provide tranquillity. In addition, some people stated that they were able to express themselves better. In this sense, it can be seen that TR practices have positive effects that increase social skills. All these results were found through the implementation of music therapy, poetry therapy, drama, creative writing, painting, nature, play, social skills, awareness, insight and empathy themed practices.

This research shows that it is possible to design many applications that can be an alternative to widely used applications such as meditation. The two practices that were most popular with participants were 'poetry, age and mindfulness' and 'poetry, trees and creative writing'. Throughout the research process, the practices were continually redesigned. In designing the applications, we focused on the definition of TR, expert opinion, the needs analysis conducted and the factors that could positively influence the dependent variables. With the evaluation of all these data, it was seen that the development of original applications was effective in identifying and improving problems. Other researchers can use the steps in this research when developing a practice/activity that aims to promote well-being in the social sciences.

When we look at the results regarding the relationships between the dependent variables of the research, there is a moderate, positive and significant relationship between the mental component of quality of life and mental well-being, self-esteem and self-liking. There is a moderate, positive and significant relationship between mental well-being and self-esteem, self-liking and self-competence. There is a strong, positive and significant relationship between self-esteem and self-liking and self-competence. There is a moderate, positive and significant relationship between self-liking and self-competence.

The involvement of academics in the design of these activities can make students feel more comfortable. Qualitative data supports this information. Implementing these practices not only in universities, but also with all individuals in society who are experiencing stress, who wish to maintain their current well-being or who wish to achieve a better well-being, can help to increase social well-being and cohesion. In addition, planned therapeutic recreation activities can play an important role in the development of public health services and the social improvement of the community. When we talk about different research proposals, planning TR practices for teachers working in existing schools and office workers in companies and integrating these practices into working hours can be a source of different perspectives. It can be reasonably proposed that recreational activities represent an efficacious solution for reducing the gender gap in societies and focusing on women's well-being. An in-depth exploration of how TR practices can make a destination attractive to young adults in terms of tourism could be of interest. In this sense, the potential of TR practices within the scope of health tourism can be examined. Research focusing on measuring the differences in impact between environments with different atmospheres can be designed. The fact that the activities carried out in the research do not aim at physical well-being can be shown as a limitation of this research. It is recommended that new researchers focus on the other fields of study mentioned, especially universities, and extend TR to new fields of study.

Acknowledgements

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A Comprehensive Analysis of Fractal Geometry in the Interior Architecture of the Astana Grand Mosque 🔴

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Abstract

In recent years, there has been a significant academic interest in the relationship between fractals and social networks. Both systems demonstrate complex, self-organizing patterns, making them a subject of fascination. Fractals, characterized by self-repeating geometric shapes, and social networks, which depict intricate connections among individuals or entities, share structural dynamics that are worth exploring. This research aims to investigate these parallels, with a particular emphasis on the implications of fractal patterns in various disciplines like architecture and sociology. A focal point of the study is the application of fractal geometry in the interior design of a mosque that was nominated for a prestigious Guinness award. The research examines how fractals are utilized in this case, to create visually captivating designs and to symbolize deeper spiritual and social connections. By analysing this example, the research contributes to the broader understanding of the interdisciplinary nature of fractals and their potential impact across diverse fields such as physics, architecture, and social theory. Additionally, a fictional element is incorporated to further illustrate these concepts.

Keywords: Fractal Geometry, Social Network, Islamic Architecture, Interior Design.

JEL Codes: R10, R14

Gülru Moralı / Yunus Topsakal

Introduction

The study of Islamic interior architectural design has long fascinated scholars due to its intricate geometric patterns and fractal structures (Aljamali, 2022), which can elicit profound neurological and psychological responses (Coburn et al., 2022). From the grand domes of mosques to the meticulously carved screens and latticework found in traditional buildings, Islamic architecture is renowned for its capacity to engage the senses and evoke feelings of awe and contemplation (Critchlow, 1976). This architectural tradition is deeply rooted in geometry, with fractal designs often symbolizing the infinite nature of the divine, making Islamic spaces both visually captivating and spiritually resonant (Garcia, 2009; Richardson, 2004).

Recent advancements in neuroscience have contributed to a greater understanding of the interaction between architecture and human perception, specifically in the context of Islamic architecture (Habibabad & Matracchi, 2021). Emerging fields like neuroaesthetics and neurosociology have delved into the influence of architectural spaces on emotional and cognitive states (Russo, 2022). Research (e.g.; Harris, 2012) have revealed that the human brain, particularly the visual cortex, effectively responds to fractal patterns, recognizing and processing them efficiently due to the brain's own fractal-like neural networks. This inherent affinity for fractal geometry indicates that Islamic architectural elements, characterized by their abundance of in self-replicating patterns, promote both cognitive engagement and emotional well-being (Mandelbrot, 1982).

Fractal geometry, which is based on chaos theory, has emerged as a prominent concept in contemporary architectural research (Ashrafi, 2017). Within the realm of architecture, fractals offer a valuable tool for examining the progression of design from larger to smaller scales, shedding light on both the spatial arrangement and aesthetic allure of structures (Mehaffy & Salingaros, 2021; Vaughan & Ostwald, 2010). The inherent self-similarity of fractals contributes to visual unity, and fosters cognitive coherence and emotional resonance (Dutta & Bandyopadhyay, 2024). This is supported by empirical evidence indicating that a moderate level of fractal complexity elicits favourable psychological reactions (Taylor et al., 2011).

However, despite the extensive research conducted in this field, there is still a clear void in the literature when it comes to the application of fractal geometry in modern Islamic architecture (Ashrafi, 2017). This gap is particularly evident in contemporary spaces such as the Astana Grand Mosque, an architectural marvel that has even been recognized by the Guinness World Records (Architecture & Design, 2024). While traditional Islamic architecture has been extensively studied (e.g., Abdullahi & Embi, 2013; Bon-ner, 2017), there have been very few investigations (e.g., Sobh & Samy, 2018; Tercan, 2023) into how modern interpretations of fractal geometry contribute to both the aesthetic and social functions of these spaces. Therefore, the main objective of this paper is to bridge this gap by thoroughly analysing the implementation of fractal patterns in the interior design of the Astana Grand Mosque. Specifically, this analysis will focus on how these intricate patterns influence human perception, social dynamics, and spiritual engagement within the mosque's premises.

The study addresses a significant gap in the current literature by examining the convergence of fractal geometry, architecture, and neurosociology within a contemporary Islamic framework. Its objective is to illustrate how the incorporation of fractals into modern mosque architecture can enhance spiritual experiences, foster communal identity, and contribute to the broader discourse on architectural psychology. Consequently, this research presents a novel perspective on the cognitive and emotional impacts of architectural design, making an original contribution to the fields of Islamic architecture, neuroaesthetics, and social theory.

Literature Review

The Aesthetic and Mathematical Foundations of Fractal Geometry in Physics

Fractals, first introduced by Benoit Mandelbrot in 1982, are mathematical structures characterized by self-similarity and intricate detail across various scales. They have become a fundamental concept in both mathematics and physics, providing novel insights into the natural world (Mandelbrot, 1989). Falconer (2003) described the complexity of fractals lies in their ability to expose hidden layers of organization and patterns in natural phenomena, despite their seemingly chaotic appearance. Unlike traditional Euclidean geometry, fractals possess non-integer dimensions known as "fractal dimensions," which quantify their intricate spatial complexity (Losa et al., 2016).

Paul Dirac, a renowned physicist, advocated the concept that mathematical elegance is a crucial determinant of a profound physical theory. Dirac (1971) stressed that simplicity and elegance are distinguishing characteristics of nature's fundamental laws. The aesthetics plays a pivotal role in the development of physical theories, with the beauty of mathematical structures frequently serving as a compass towards deeper comprehension (Ivanova & French, 2020). Greene (2003) additionally observes that the symmetries and patterns observed in physics are intrinsically intertwined with the mathematical expressions that depict them.

The correlation between aesthetics and physics is notably apparent in the examination of fractals. Fra-

ctals serve as a conduit between the intricate beauty witnessed in nature and the mathematical constructs employed to elucidate it (Driscoll, 2019). The seminal research conducted by Mandelbrot (1985) on the Mandelbrot set, an archetypal instance of fractal geometry, illustrates how basic equations can yield infinitely intricate and aesthetically pleasing formations. Consequently, delving into the realm of fractals enables physicists to unveil the concealed patterns and symmetries that govern natural systems, as underscored by Gleick (1987).

In addition to their mathematical fascination, fractals possess practical applications in comprehending the physical realm. They find utility in modelling diverse phenomena like coastlines, clouds, and biological systems (Bunde & Havlin, 2013). This is attributable to their remarkable capacity to replicate natural forms with precision, as expounded by Peitgen et al (1992). The repetitive and self-similar nature of fractals enables them to represent processes occurring across various scales, a crucial characteristic in both theoretical and applied physics (Fu et al., 2024). A visually stunning zoom into the intricate mathematical Mandelbrot set fractal is depicted in Figure 1.
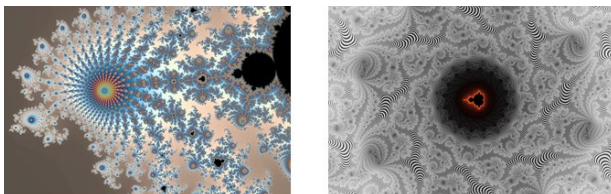
Figure 1. Beautiful zoom into the infinite mathematical Mandelbrot set fractal.
Reference: Pro photo by Michael Piepgras, Pro Extended License Vecteezy

Furthermore, the exploration of fractals coincides with the wider realm of complexity science. According to Wheeler (1990), the intricate nature of fractals, particularly in their correlation with entropy and information, plays a pivotal role in comprehending a range of physical, biological, and computational systems. This association between fractal geometry and complexity theory highlights the significance of fractals in contemporary physics, where scholars persist in examining the impact of fractals in various domains, including quantum mechanics and cosmology (Yousef, 2019).

Fractal Geometry in Islamic Architecture

The convergence of fractal geometry and architecture is particularly remarkable within the sphere of Islamic art and design. Islamic architecture has gained recognition for its intricate geometric patterns and recursive motifs, which frequently serve as visual manifestations of the infinite and the divine (Ranjazmay Azari et al., 2023). Abas & Salman (1995) elucidates that these patterns are solely ornamental and possess profound symbolism, illustrating the interconnectedness of all elements and fostering a sense of spiritual harmony. Consequently, the integration of fractal geometry into Islamic architectural design fulfils both aesthetic and spiritual purposes (Tercan, 2023).

Islamic architecture has historically employed geometric patterns to cultivate a notion of harmony and equilibrium. These intricate designs frequently incorporate repetitive motifs that echo the self-similar formations observed in fractals (Driscoll, 2019). A prime illustration can be seen in the meticulously crafted tile work and lattice designs commonly adorning mosques. These patterns exhibit a recurring arrangement at varying scales, akin to the fractals scrutinized by scholars in the fields of physics and mathematics (Pinkau & Gurung, 2017). The repetition within these designs is not arbitrary; rather, it serves as a visual manifestation of the Islamic worldview, which places significant emphasis on the unity and interconnectedness of all existence (Abas & Salman, 1995).

One of the most significant ways that fractal geometry manifests in the mosque's design is through its use of power laws. Power laws, as described by Clauset (2009), govern the distribution of shapes and sizes in fractal patterns. In the mosque's interior, the repetition of geometric shapes follows a power law distribution, where a few large elements dominate the space while smaller details fill in the gaps (Cenani & Cagdas, 2006). This creates a sense of visual hierarchy and balance, which is central to the aesthetic experience of the mosque (Ali, 2021).

The concept of fractal dimension is also relevant in the context of the mosque's architecture (Ediz & Ostwald, 2012). Fractal dimension quantifies the complexity of a fractal, and in the case of the Astana Grand Mosque, it helps to explain the layered complexity of its design. The mosque's interior is composed of multiple layers of geometric patterns, each of which adds to the overall sense of depth and intricacy (Hashmi, 2018). This layering is akin to the iterative processes used to generate fractals, where each iteration reveals new levels of detail and complexity (Baird, 2011).

The use of fractal geometry in the Astana Grand Mosque's design reflects a broader cultural and philosophical perspective on the relationship between mathematics, art, and spirituality. The fractal patterns found in the mosque's architecture are not merely decorative; they are a visual representation of the mathematical order that underlies the physical world (Abdelsalam & Ibrahim, 2019). This reflects the Islamic belief in the unity of all things, where the physical and spiritual realms are intertwined and governed by the same fundamental principles (Tercan, 2023).

Fractals have played a significant role in Islamic inte-

rior design due to their deep symbolic and spiritual meaning within the Islamic faith. According to Ardalan & Bakhtiar (1973), the incorporation of fractals in Islamic architecture is closely linked to the concept of the infinite and the divine. The repetition of these patterns is believed to symbolize the infinite nature of God. Additionally, the presence of fractals in Islamic interior design has been studied from a sociological perspective. Scholars argue that these patterns are not merely decorative, but rather serve as a means of conveying important social and cultural values. For instance, the intricate and complex nature of Islamic fractals is often seen as a reflection of the richness and complexity of Islamic culture, as well as the significance of community and collective identity within the Islamic faith (Critchlow, 1976).

Moreover, the presence of fractals in Islamic interior design has been associated with the notion of social hierarchy and power dynamics. Grabar (1987) asserts that the incorporation of these patterns in the construction of mosques and other religious edifices serves as a mechanism for bolstering the authority and authenticity of Islamic religious leaders and establishments. Furthermore, the intricacy and exclusivity of these designs can function as a tool for social differentiation, with only the most erudite and privileged individuals in society possessing the knowledge and means to fully comprehend and engage with these remarkable architectural marvels (Ardalan & Bakhtiar, 1973).

Research in neuroaesthetics has shown that the human brain is inherently predisposed to processing and appreciating fractal patterns, which are frequently found in natural environments (Harris, 2012). In the context of Islamic interiors, the presence of fractal patterns has been linked to improved cognitive processing and attention as individuals navigate and immerse themselves in these spaces (Marks, 2010). Consequently, this can foster a sense of contemplation, awe, and spiritual connection, all of which can have significant implications for the social dynamics within these environments. The aesthetic and neurological responses to fractal patterns in Islamic interiors can also impact emotional states and social cohesion. Numerous studies have demonstrated that exposure to fractal patterns can elicit positive emotional responses, such as feelings of calm, relaxation, and well-being (Joye, 2007a). These emotional responses, in turn, can directly influence social dynamics by contributing to a collective sense of tranquillity, unity, and shared experience among individuals within the space (Salingaros, 2012). The repetition and recursion of fractal patterns in Islamic interiors can create a sense of visual rhythm and harmony, leading to a deeper sense of belonging and social connectedness among the occupants (Biederman & Vessel, 2006). Consequently, this can contribute to the establishment of a collective identity and the strengthening of social bonds within the community.

Exploring Fractal Patterns in the Astana Grand Mosque: A Spectacular Fusion of Art and Architecture

Islamic architecture is widely acclaimed for its intricate and captivating designs, often incorporating the use of fractals. The fractal patterns found in Islamic architecture are believed to embody the notion of the "infinite" within the finite, representing the belief that the divine exists within the material world (Ardalan & Bakhtiar, 1973). This concept of the transcendent existing within the immanent is a fundamental principle of Islamic theology and is reflected in the social structures of Islamic societies. Situated in the heart of Astana, the magnificent Astana Grand Mosque, inaugurated in 2022, showcases a distinct architectural design inspired by mesmerizing fractal patterns. The elaborate patterns gracing the mosque's exterior and interior walls seamlessly blend Islamic architecture with fractal geometry, offering a visually captivating experience for visitors. The inclusion of fractal patterns in the architecture of the Astana Grand Mosque serves an aesthetic purpose and carries profound symbolic significance. Fractals, renowned for their self-replicating and boundless nature, symbolize the concept of infinity and unity within the Islamic tradition, reflecting the ceaseless divine creation (Smith, 2017).

Upon entering the Astana Grand Mosque, visitors are greeted by a magnificent hall adorned with meticulously crafted fractal-inspired motifs. These motifs have been thoughtfully designed to evoke a sense of divine harmony and interconnectedness. The interplay of light and shadow on the intricate geometric patterns further enhances the spiritual atmosphere of the space, encouraging worshippers to contemplate the infinite beauty of the universe (French, 2014). The incorporation of fractal geometry in the mosque's design exemplifies the architect's innovative approach of blending traditional Islamic architectural elements with contemporary design principles (see Figure 2). By integrating fractal patterns, the mosque serves as a testament to the enduring link between mathematics, art, and spirituality, offering a glimpse into the intricate beauty of the universe (Harris, 2012).

Figure 2. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

A Comprehensive Analysis of Fractal Geometry in the Interior Architecture of the Astana Grand Mosque

The Astana Grand Mosque is a significant symbol of modern innovation, gaining global recognition for its retractable roof equipped with advanced technology that can be closed during winter. This unique feature allows the mosque to claim the title of the world's largest covered Sahan, measuring 140 x 130 meters (Archello, 2024). The Astana Grand Mosque stands as an architectural masterpiece, seamlessly blending Islamic traditions with cutting-edge design techniques, prominently showcased through the captivating use of fractal patterns. Its captivating beauty serves as a testament to the timeless allure of Islamic architecture and the enduring legacy of fractal geometry in creating spaces that inspire awe and reverence. Spanning an indoor area of 68,060 m² and an outdoor courtyard of 6,300 m², the mosque is situated on a vast 10.03-hectare plot of land. Boasting a total of 73 domes, including the main dome with a diameter of 63 meters and a height of 83 meters, as well as four minarets towering at 130 meters, one of which is designed as a tourist viewing terrace. With its expansive 18,175 m² main prayer hall, the Astana Grand Mosque is poised to become one of the largest mosques in Central Asia, accommodating up to 30,000 worshippers in total (Arketipodesign, 2022). Apart from the worship halls and ablution areas for 30.000 people, it also includes many different functions such as conference and wedding halls, VIP rooms for guests, classrooms, offices, library, and banquet hall for funeral dinners, morgue area for funeral procedures and car park.

In the context of Islamic interior design, the prevalence of fractal patterns can have a profound impact on individuals who experience these spaces. The intricate visual complexity and rhythmic qualities of these designs have the potential to stimulate the brain in ways that promote relaxation, focus, and a sense of connection to the divine (Abas & Salman, 1995). Consequently, this can have implications for the social and behavioural dynamics within these spaces, fostering a sense of community, reverence, and spiritual engagement. To maintain the architectural integrity of the central dome from a structural perspective, the engineers of Astana Grand Mosque limited the use of support structures for load distribution. A steel frame was employed to minimize the weight of the support structure for the central dome. The base beneath the central dome has a complex octagonal shape, and the engineers proposed an octagonal lattice-like structure supported by four superior columns (see Figure 3). This application of value engineering has effectively kept the columns of the haram as unencumbered as possible, allowing worshippers to make optimal use of the prayer hall (Arketipodesign, 2022).

Figure 3. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

Interaction of Fractal Patterns in Islamic Art: Exploring Interconnectedness and Sociological Dimensions in the Philosophy of Mind

Islamic art is widely recognized for its intricate and captivating designs, which frequently incorporate endlessly repeating geometric patterns. These patterns have been subject to extensive scholarly and artistic examination for centuries, as experts are awed by their intricate construction and breath-taking beauty (Kassim et al., 2019). However, what if these patterns possess more than just aesthetic allure? What if they carry profound philosophical and sociological implications? An effective approach to exploring this notion involves studying the interplay between fractal patterns in Islamic art and the concepts of connectionist holism as a philosophy of mind, as well as their sociological dimensions.

This approach combines the principles of fractal geometry, which examines self-similar and repetitive patterns found in nature, with connectionist holism, which emphasizes the interconnectedness and interdependence of different elements in a system. Fractals were first discovered by mathematician Benoit Mandelbrot in the 1970s and are defined as patterns that repeat themselves at different scales. This means that regardless of the level of zoom, a fractal will display the same repeated pattern. The concept of fractals is reflected in Islamic art, where precise and symmetrical geometric patterns are created by repeating a simple shape or motif, such as a star or flower (see Figure 4). These geometric designs, characterized by repeated self-similar shapes at various scales, have profound philosophical implications that link the microcosm to the macrocosm (Joye, 2007b).

Figure 4. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

The examination of fractal patterns in Islamic art overlaps with the emerging field of neuroaesthetics, which investigates how the brain processes and perceives aesthetic stimuli (Zeki, 2014). Neuroaesthetics research suggests that exposure to visually captivating patterns, such as fractals, can activate neural networks associated with pleasure and aesthetic appreciation (Pearce et al., 2016). Conversely, the connectionist holistic philosophy of mind challenges the conventional perspective that the mind is a distinct entity separate from the body and external world. It posits that the mind is an intricate network of connections and interactions among various elements, including thoughts, emotions, and experiences. These connections constantly change and shape our perceptions and behaviours. When applying this philosophy to the study of Islamic art, we can observe how fractal patterns in designs exemplify the interconnectedness and interdependence of the different elements in the art form. Each small motif is linked to a larger pattern, analogous to how each thought or experience is linked to the overall functioning of the mind (see to Figure 5). From a sociological standpoint, the prevalence of fractal patterns in Islamic art reflects the broader cultural values and societal norms within Muslim communities. The incorporation of fractals in architecture, textiles, and calligraphy serves decorative purposes while also conveying deeper spiritual and symbolic meanings (Nasr, 1976).

Figure 5. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

The emerging discipline of neuro-mind philosophy explores the complex interconnections among the brain, mind, and consciousness, offering insights into how neurological processes impact cognitive functions and subjective experiences (Demirci & Arıdağ, 2023). By investigating the neural mechanisms that underlie pattern recognition and aesthetic perception, researchers aim to unravel the enigmas surrounding human consciousness and creativity (Higuera-Trujillo et al., 2021). Furthermore, the sociology of mind provides valuable perspectives on how social factors shape individuals' perceptions, beliefs, and behaviours within a cultural framework. The field of neurosociology emphasizes the dynamic interplay between neurological processes and social structures, highlighting the reciprocal influence between brain functions and societal norms (Firat & Hitlin, 2012).

Islamic art holds significant cultural importance and is often intertwined with religion, spirituality, and personal identity. The utilization of fractal patterns in art serves to reinforce these cultural and social connections. Throughout history, the human mind and consciousness have seamlessly transitioned between the abstract and the tangible, resulting in various artistic endeavours. These creative expressions may involve imitating and replicating natural objects, stylizing and partially abstracting natural forms, or even producing completely abstract concepts. Among these artistic creations, geometric forms and ornaments can be regarded as the highest level of abstraction originating from human thought and consciousness. Geometric designs are prevalent across diverse cultures that have crafted either portable or permanent artefacts using materials such as earth, metal, or fabric. Notably abundant on Neolithic ceramics, geometric embellishments take the form of spirals, diagonal lines, zigzags, and diamonds (see Figure 6).

The concept of coexistence pertains to the peaceful coexistence of diverse cultures, religions, and beliefs within a society. Islamic art serves as a compelling exemplification of this ideology, having emerged from the interplay between various civilizations and cultures in the Islamic world (Taiba et al., 2023). The utilization of symmetrical geometric patterns and motifs in Islamic art can be attributed to the influences derived from ancient Greek, Byzantine, and Roman art (Ajlouni, 2019). Islamic artists drew inspiration from these cultures, skilfully adapting their techniques and styles to fashion a distinct art form that encapsulated the coexistence of disparate civilizations. The relationship between Islamic geometric patterns and the notion of connectedness is evident in the intricate and elaborate designs that result from the interlocking of various geometric shapes (see Figure 7). These patterns serve as a representation of the interconnectedness of all elements within the universe, demonstrating the Islamic belief in the

A Comprehensive Analysis of Fractal Geometry in the Interior Architecture of the Astana Grand Mosque

unity and singularity of Allah (Yousef, 2019) This concept of connectedness is also apparent in the process of crafting Islamic art, where artists would engage in a cooperative and interdependent manner. This traditional approach to collaborative creation reflects the interconnectedness and interdependence of individuals within Islamic societies.
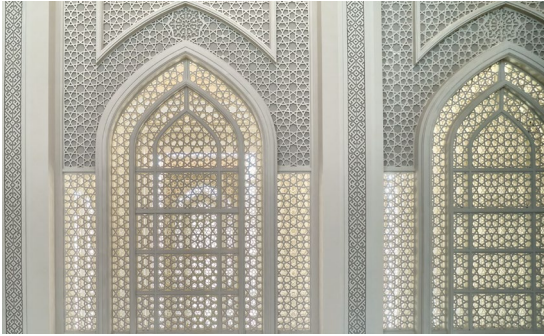
Figure 6. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

Gülru Necipoğlu, an art historian and scholar, has conducted extensive research on the correlation between Islamic geometric patterns and these concepts. In her book, "The Life of an Imperial Palace," Necipoğlu delves into the interconnectedness of various historical periods and cultures in the Islamic world by analysing the geometric patterns present in Istanbul's Topkapı Palace (Necipoğlu, 2006). Sociologists have observed that the incorporation of fractal patterns in Islamic art reflects the organization and structure of societies, emphasizing the interdependence of individuals within communities (Karaca et al., 2022). This notion is further supported by the concept of "Tawhid," which represents the unity and interconnectedness of all things in Islam (Fernandez, 2023). Consequently, the utilization of fractal patterns in Islamic art serves as a visual representation of this concept and serves as a reminder of its significance in societies. The philosophy of mind within Islamic traditions often highlights the interconnectedness of all things, underscoring the unity that underlies the universe's diversity (Ruhullah & Ushama, 2024).
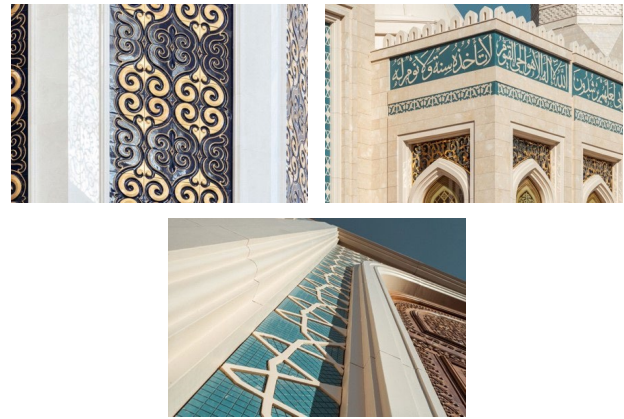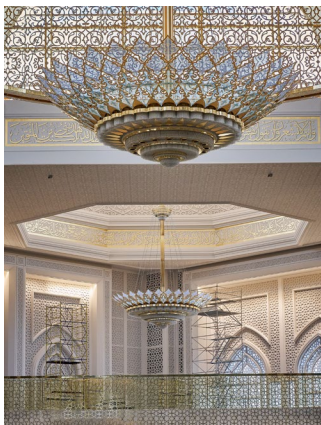

Figure 7. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

The implications of fractal-inspired interior design extend beyond the individual, reaching into the realm of neurosociology - the study of the interplay between neurological processes and social dynamics. Researchers have suggested that incorporating fractal patterns into living and working spaces can promote psychological comfort and a sense of belonging, ultimately influencing social interactions and group dynamics (Taylor et al., 2005). The mihrab feature of the Grand Mosque of Astana (see Figure 8) is adorned with the iconic Islamic fractal motif, designed to showcase the Asma-ul-Husna feature, which represents the 99 names of Allah as tawhid, with utmost integrity.

Picture 8. Astana Grand Mosque designed by Arketipo Design Interior Architecture (Photo by Arketipodesign)

Mihrab refers to the designated area where the imam stands in front of the congregation while praying in various architectural structures such as mosques, masjids, tombs, caravanserai masjids, madrasahs, darülhüffaz, darüz dzikr. Additionally, it signifies the section that points towards Mecca, known as the qibla, which can take the form of a cavity, cell, or recessed space. During the time of Prophet Muhammad (PBUH) and the four caliphs, the qibla was determined by a colored line or a stone slab with specific markings. Notably, no cell-shaped mihrab was constructed in the Masjid al-Nabawi in Medina or the initial mosques in Basra, Kufa, and Fustat. However, during the Umayyad period, mosques and masjids began featuring cell-shaped mihrabs with semi-circular recesses.

One of the types of patterns that have been extensively utilized for centuries is undoubtedly geometric ornaments. These ornaments have gained popularity due to their compatibility with Islamic beliefs and their abstract meanings. The Turks, with their own traditions and interpretations, have created unique geometric ornaments. During the Anatolian Seljuk period, geometric ornaments were particularly prevalent (Sezgin, 2002). In mihrabs, geometric ornaments are commonly seen in borders, cornices, tops, and the lower part of the niche. When examining mosques and masjids, geometric ornaments formed with a broken line system, circle arcs, and two-line interlaces are frequently encountered.

Conclusion and Implications

The Astana Grand Mosque stands as an unparalleled testament to the profound integration of fractal geometry and Islamic art, showcasing a striking synthesis of tradition and modernity. Among its many unique features, the mosque's innovative application of fractal principles in its design emerges as its most defining characteristic. These fractal patterns symbolize aesthetic beauty and embody complex ideas about the universe and human existence. They represent a worldview where all elements are interconnected, illustrating how diverse cultural influences and historical layers come together in a harmonious whole. This interplay between past and present, tradition and innovation, underscores the mosque's capacity to bridge different epochs and cultures.

While geometric shapes and ornaments are common in various artistic traditions, the Astana Grand Mosque elevates these designs to an exceptional level. Its geometric patterns reflect a mastery of Islamic art's historical richness while seamlessly adapting to contemporary contexts. This historical layering and stylistic adaptability are particularly evident in the mosque's ability to reinterpret traditional geometric motifs within a modern architectural framework, illustrating a continuous artistic evolution. The seamless blend of traditional Islamic artistry with cutting-edge architectural techniques makes the mosque a beacon of cultural preservation and innovation.

The reuse and transformation of historical geometric designs within the mosque exemplify a dynamic dialogue between different artistic currents and cultural narratives. This approach is emblematic of the postmodern art and design environment, where historical references are seamlessly woven into new creations. In the Astana Grand Mosque, this synthesis achieves a unique expression, blending intricate historical patterns with innovative design techniques to create a space that is both timeless and contemporary. The meticulous attention to detail in the mosque's ornamentation and spatial organization further reflects the skillful merging of historical authenticity with modern sensibilities.

A particularly striking feature of the mosque is its ability to integrate fractal geometry into its interior architecture, offering profound implications for human cognition and emotion. From a neuro-sociological perspective, fractal patterns naturally appeal to the human eye and evoke feelings of order and balance. Their application in the mosque's design elevates the psychological and emotional well-being of visitors, creating an atmosphere of serenity and introspection. This alignment with neuro-sociological principles highlights the mosque's role as a place of worship and a sanctuary for mental and emotional rejuvenation. The repetitive yet varied nature of fractal patterns creates a visual rhythm that

resonates deeply with the human mind, fostering a sense of harmony and spiritual connection.

Beyond its aesthetic and psychological impact, the mosque's fractal-based design also embodies a broader philosophical message. The intricate patterns reflect the Islamic concept of tawhid, or unity, where the oneness of the divine is mirrored in the interconnectedness of all creation. This symbolic representation transcends cultural and temporal boundaries, making the mosque a universal symbol of unity and harmony. Moreover, the mosque's design encourages reflection on the relationship between the microcosm and the macrocosm, inviting visitors to contemplate their place within the larger universe.

Ultimately, the Astana Grand Mosque's most striking feature—its innovative use of fractal geometry—defines its uniqueness and significance. This design approach enhances its visual magnificence while fostering a deeper sense of connectedness and introspection. The mosque serves as a powerful symbol of how art and architecture can reflect and enrich the interconnectedness of human experience, offering a rich tapestry of cultural, philosophical, and emotional dimensions. It stands as an architectural marvel and as an enduring testament to the ability of art to inspire, connect, and transform.

This study, while offering valuable insights into the intersection of fractal geometry, Islamic art, and social dynamics, is not without its limitations. The research primarily focuses on the Astana Grand Mosque as a case study, which, while illustrative, limits the generalizability of findings to other architectural or cultural contexts. Furthermore, the exploration of neuro-sociological impacts relies on theoretical frameworks without incorporating empirical data from visitor experiences, leaving room for further experimental validation. Future research could address these gaps by conducting cross-cultural comparisons with other architectural masterpieces that integrate fractal geometry, as well as incorporating neuroscientific methodologies to assess the psychological and emotional responses elicited by fractal designs. Expanding the scope to explore the applicability of fractal geometry in non-religious or secular spaces could also provide a broader understanding of its interdisciplinary potential and societal implications.

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The Role of Artificial Intelligence Anxiety in the Relationship Between Organizational Learning and Performance in Organizations[1] doi

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Abstract

The purpose of this study is to investigate the mediating role of artificial intelligence (AI) anxiety in the relationship between organizational learning and performance. The study sample consists of employees from the healthcare sector, specifically those employed at a private hospital in Istanbul. Data were obtained from 177 healthcare employees through the survey method. Statistical analyses were performed using SPSS 27 software, ensuring a 95% confidence interval. Initially, a normality test was conducted to examine the data distribution. Subsequently, a reliability analysis was carried out to ensure the dataset's consistency, and an exploratory factor analysis (EFA) was applied to evaluate the factor structure. A correlation analysis was performed to determine the relationships between variables, followed by hierarchical regression analysis to assess the mediating role. The findings of the study demonstrate that AI anxiety does not have a significant mediating effect on the relationship between organizational learning and performance. These results suggest that the impact of AI anxiety on organizational dynamics requires further investigation. Given that AI anxiety can adversely influence organizational learning and reduce overall performance, organizations must take appropriate measures to mitigate concerns related to AI.

Keywords: Artificial Intelligence Anxiety, Performance, Organizational Learning, Sustainability.

JEL Codes: M10, M12

Cemile Şeker / Semiha Kılıçaslan / Turgay Karalinç / Aslı Kaya

Introduction

Businesses need to have a strong propensity to learn in order to gain a competitive advantage in the current century. Learning is defined as a change in behavior through information obtained from the environment. Organizational learning (OL) is conceptualized as a process through which knowledge is developed as a result of the interactions between organizations and their environment (Calantone et al., 2002; Daft and Weick, 1984). OL is regarded as a fundamental requirement for survival. Especially in a business environment characterized by environmental uncertainty, businesses are compelled to obtain information from their surroundings to ensure their continuity (Kozcu & Özmen, 2023). OL is defined as the capacity to sustain and enhance organizational performance (OP) through accumulated experience (Dibella et al., 1996) and is viewed as an essential indicator of achieving organizational goals and objectives in both developed and developing economies (Rehman et al., 2019). OP, often represented as a multidimensional and complex concept, is influenced by numerous variables. Although productivity is frequently cited as one of its dimensions, it does not fully account for OP on its own (Cho, 2004).

In addition to productivity, OP considers factors such as efficient resource utilization, the level of customer satisfaction, and the speed with which businesses adapt to change. These are among the key criteria that must be taken into account when evaluating OP (Çalışkan & Kater, 2020). Onağ and Tepeci (2016) further emphasized that businesses must enhance their learning capacity to improve their performance in alignment with their strategic objectives. In today's competitive landscape, one of the most critical factors contributing to OP development is the effective use of information technologies. Extensive research findings underscore the positive impact of information technologies on organizational OP. For instance, Turunç (2016) reported significant outcomes between the use of technology and OP measures. Similarly, Alkatheri et al. (2023) found robust positive correlations between technology capacity and OP.

Particularly, the role of artificial intelligence (AI) in OP has gained increasing attention. AI's use and competencies have demonstrated notable impacts on OP, as highlighted in studies by Mikaelf et al. (2023).

In this study, the assumption that OL positively influences OP is empirically tested based on existing literature. Additionally, the mediating role of AI anxiety, which manifests as employees' concerns regarding AI-related technologies, is examined in the relationship between OL and OP. This study also addresses the interaction between OL and OP within the scope of AI anxiety. Notably, this study represents the first attempt to investigate the role of AI anxiety as a mediator between OL and OP in the literature. Accordingly, hypotheses were formulated following a systematic literature review, and the findings obtained were analyzed and interpreted within the research framework.

Conceptual Framework, Relationships between Research Variables and Hypotheses

The Impact of Organizational Learning on Organizational Performance

In the dynamic and continuously evolving business world, organizations are in constant pursuit of effective strategies to enhance their performance. Among these strategies, organizational learning (OL) is recognized as a crucial factor (Huber, 1991). OL serves as the most significant tool for improving organizational performance (OP) and is a key driver in achieving long-term competitive advantage. Learning organizations possess a heightened ability to adapt to environmental changes, surpass competitors, and respond swiftly to emerging challenges (Sundusiah et al., 2022).

OL as a process involving the identification and correction of mistakes (Saadat et al., 2016). In another perspective, OL is described as the cumulative result of experiences gained by the organization (Argote & Spektor, 2011). OL represents a structured process where knowledge created by individuals is systematically increased, and the obtained knowledge becomes an integral component of the organization's knowledge system. The development of new capabilities, as well as the acquisition of innovative skills through organizational efforts, makes OL both feasible and essential. In today's business context, characterized by cognitive and behavioral transformations, OL is no longer an option but a critical necessity for all organizations (Garcia-Morales et al., 2012).

While OL often begins with individual learning, its ultimate purpose lies in transforming this knowledge into a collective understanding at the group level. OL transcends the mere aggregation of individual learning, creating synergies that provide added value for organizations. Businesses facilitate learning systems among their members, enabling the effective transfer of accumulated knowledge. In this context, OL plays a pivotal role in fostering organizational understanding, guiding organizations to interpret their environment and refine strategic implementations (Fiol & Lyles, 1985).

The OL process is typically classified into four main stages. The first stage involves the acquisition of knowledge, which refers to the mechanisms through which knowledge is obtained. In the second stage, the dissemination of knowledge occurs, wherein information from diverse sources is shared, leading to the development of new knowledge or insights. The third stage involves knowledge interpretation, in which distributed knowledge is analyzed and synt-

hesized at one or more levels. Finally, the organizational memory stage refers to storing knowledge for potential future use, ensuring the preservation and accessibility of critical insights.

OL, defined as the acquisition, detection, and correction of knowledge and errors, also equips businesses with the capacity to integrate dynamic capabilities into their processes. This integration enables organizations to achieve sustainable competitiveness by enhancing both financial and non-financial performance outcomes (Ginuineen et al., 2015). OL further emphasizes the necessity of obtaining accurate and timely information and utilizing it to guide organizational decision-making. By facilitating the structured sharing of obtained information, OL contributes to informed decision processes and helps organizations develop robust models for future strategic planning (Yiyit & Çorbacıoğlu, 2014).

There are different views on the definition of OP. According to Daft (2000), OP is the ability of an organization to achieve its goals by utilizing its resources efficiently and effectively. Although productivity and performance are often used interchangeably, Ricardo (2001) distinguished between the two concepts and emphasized that productivity refers to the amount of work produced within a given time period, whereas performance is a broader concept that encompasses productivity along with quality and consistency (Jarad et al., 2010).

There are also varying perspectives on the criteria by which OP should be measured. Ho (2008) focuses on two factors that he deems essential for evaluating OP: financial performance and marketing performance. Financial performance is defined as the relative profitability of the organization, return on investments, and growth in sales rates. Marketing performance, on the other hand, is associated with the organization's performance in terms of market share, profit rates, and customer satisfaction.

Several studies have examined the relationship between OL and OP. Akhtar et al. (2011) demonstrated that OL positively influences OP. Similarly, Liao et al. (2009) asserted that OL has a positive impact on OP. Başar (2022) found that OL has a statistically significant effect on OP. Furthermore, Soomro et al. (2021) concluded that OL exerts a positive and substantial influence on OP. Migdadi (2019), who conceptualizes OL as the capacity to achieve organizational goals through the efficient and effective use of resources, highlighted that OL enhances OP through innovation. Skarlavai et al. (2007) also argued that OL contributes positively to financial performance; however, this effect primarily arises from employees' non-financial performance evaluations.

Based on the aforementioned research findings, the following hypothesis was formulated:

H1: Organizational learning has a significant and positive effect on organizational performance.

Organizational Learning and Artificial Intelligence Anxiety

Despite the transformative potential of artificial intelligence (AI) to enhance global economic productivity, it has significantly altered the way organizations operate and has increasingly become an essential factor for improving business efficiency and effectiveness (Suseno et al., 2022). The widespread adoption of AI technologies and applications in the workforce has led to growing concerns regarding its impact. Furthermore, the increasing integration of powerful and advanced technologies has created an obligation for employees to continually develop their skills and knowledge to adapt to emerging innovations. This situation contributes to the formation of artificial intelligence anxiety among employees, defined as an emotional state that causes individuals to feel uneasy about interacting with AI technologies (Wang & Wang, 2022).

Li and Huang (2020) focused on eight factors contributing to AI anxiety, identifying key concerns such as privacy violations, unethical behavior, role displacement, continuous learning pressure, existential risks, ethical dilemmas, artificial consciousness, and transparency issues. Li and Huang (2020) measured these eight factors to determine their influence on AI-related anxiety in organizational settings and concluded that there are four primary sources of AI anxiety. These sources include anxiety caused by trauma, anxiety arising from interaction with AI, anxiety resulting from others' traumatic experiences, and anxiety stemming from the uncertainty and unpredictability associated with AI. According to Wang and Wang (2022), the individual's need for career changes and skill development leads to elevated AI anxiety, which motivates employees to exhibit greater learning behaviors.

H2: Organizational learning has a positive and significant effect on AI anxiety.

The Relationship between Artificial Intelligence Anxiety and Organizational Performance

Artificial intelligence refers to technology applied to accomplish tasks requiring a specific level of intelligence (Bhardwaj et al., 2020). Numerous studies have indicated that the utilization of artificial intelligence enhances business performance in both financial and non-financial domains. Wamba et al. (2020), one of these significant studies, reported that artificial intelligence improves organizational performance across administrative, marketing, and financial processes. Bhargava et al. (2021) further concluded that the implementation of automation and artificial intelligence technologies does not adversely affect employees' perceptions of job satisfaction, job security, or employability. Additionally, their study highlighted the ongoing importance of the human element in task execution.

According to the findings, the absence of artificial intelligence anxiety positively influences organizational performance. Similarly, Olan et al. (2022) noted that organizational performance improves sustainably when AI technologies are implemented as part of an integrated information-sharing system. Bosco (2020) stated that the application of artificial intelligence provides businesses with overarching benefits for both managerial and operational outcomes. However, the study also suggests that an increase in AI anxiety may negatively impact organizational performance, prompting the formulation of the following hypothesis:

H3: AI anxiety has a significant and negative effect on organizational performance. Based on these findings, the following hypothesis was constructed:

H4: Artificial intelligence anxiety mediates the relationship between organizational learning and organizational performance in organizations.

Theoretical Framework

To effectively address environmental uncertainty, organizations must remain cognizant of all critical components of their operating environment. This awareness enhances an organization's ability to comprehend and respond to environmental dynamics, enabling the organization to gather essential information regarding external conditions (Duncan, 1972). Contingency theory underscores that environmental conditions are determinant in every issue related to the organization. Contingency theory is a theory that emerged through the work of Burns and Stalker (1961), Chandler (1962), and Lawrence and Lorsch (1967) and is frequently used to understand organizations. Contingency theory argues that the most suitable organizational structure will be determined by environmental conditions. The fundamental premise of contingency theory is that organizational goals should be determined by decision-makers in a manner that aligns with external environmental conditions (Banalieva & Sarathy, 2011). It is posited that the organization can only achieve strategic alignment between itself and the environment through this process. The necessity for organizations to adapt to their environment arises from the need to access critical information about it. Such access can only be achieved through learning (Duncan, 1972). Thus, learning is regarded as a crucial process for organizational success. According to Dodgson (1993), OL fosters a connection between the organization and its environment that promotes proactive behavior. This connection enables organizations to take preventive measures by anticipating potential changes in their environment. In organizations where OL is established, an increase in job satisfaction among employees has a direct impact on the financial and non-financial performance of the organization (Emhan et al., 2015). Similarly, Khandekar and Sharma

(2006) emphasized that organizational learning within human resources management is positively associated with organizational performance (OP). In another study, it was determined that an OL climate is effective in improving OP (Çalışkan & Kater, 2020). Consistent with contingency theory, it is essential to design organizational structures and processes that align with the current environment to ensure adaptability. This alignment facilitates the organization's ability to achieve the desired level of performance, which is attainable solely through OL.

Method

Research Model

The model established to determine the effects and relationships between the research variables is presented in Figure 4.1 below.
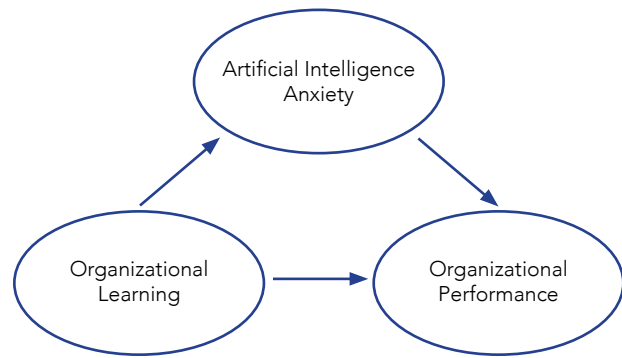
Figure 4.1: Research Model

Kaynak: Gürbüz, S., & Şahin, F. (2017).

Population and Sample

The population of this study comprised healthcare professionals, while the sample of the study included healthcare professionals employed in a private hospital located in Istanbul. The study consisted of 177 employees.

Data Collection Tools

The survey technique and convenience sampling method were employed to collect data for the study. All scales used in the study were organized using a 5-point Likert scale. The questionnaire consists of four distinct sections. The first part of the questionnaire captures demographic details about the participants, the second part includes statements regarding OP, the third part includes statements on OL, and the final part involves statements about artificial intelligence anxiety. For the OL variable, the scale developed by Calantone et al. (2002), which covers four dimensions and includes 17 statements, was adopted. The dimensions of the scale include commitment to learning, shared vision, open-mindedness, and organizational knowledge sharing. For the artificial intelligence anxiety scale, the scale

introduced by Wang and Wang (2019) and adapted into Turkish by Akkaya et al. (2021) was utilized. The scale of Wang and Wang (2019) comprises 21 statements. However, Akkaya et al. (2021), in the process of adapting the scale to Turkish, determined that the AI anxiety scale consists of 16 statements distributed across four dimensions: learning, job change, socio-technical blindness, and AI configuration (Seker et al., 2024). For OP, Baker et al. (1999) was referenced as a basis. This scale, which has been widely cited in numerous doctoral dissertations, was adopted by Caloglu in his 2016 doctoral study. The Turkish version of the scale was obtained from the doctoral study prepared by Caloglu in 2016. This scale includes 7 items.

Data Analysis

The data were analyzed using a statistical software package with a confidence level of 95%. For the analysis, the following tests were performed sequentially: normality testing, reliability testing, exploratory factor analysis, correlation analysis, and hierarchical regression analysis for mediation testing.

Findings

Demographic Statistics of the Sample

The study included 177 health workers. Table. 1 below provides demographic information about the sample.

Table 1. Demographic Statistics of the Sample

	n	%
Gender		
Woman	88	49,7
Male	89	50,3
Total	*177*	*100,0*
Age		
20 and below	34	19,2
21-30	67	37,9
31-40	44	24,9
41-50	30	16,9
51 and above	2	1,1
Total	*177*	*100,0*
Marital status		
Single	55	31.1
Married	122	68,9
Total	*177*	*100,0*

Education status

Primary/Secondary School	6	3,4
High School	53	29,9
Associate degree	64	36,2
License	49	27,7
Master's degree	5	2,8
PhD	0	0
Total	*177*	*100,0*

Length of service at the workplace

Less than 1 year	21	11,9
1-3 years	67	37,9
4-6 years	36	20,3
7-10 years	33	18,6
10-15 years	16	9,0
Total	*177*	*100,0*

Task at the workplace

Senior manager	13	7.3
Middle manager	74	41,8
Lower level manager	62	35,0
Staff	28	15,8
Total	*177*	*100,0*

Normality Tests for the Scales

Before the analysis, it should be determined whether the data exhibit a normal distribution. This is essential to decide between parametric and non-parametric tests. If the data follow a normal distribution, parametric tests can be employed (Gürbüz & Şahin, 2017). The most frequently utilized method for assessing normal distribution involves examining the skewness and kurtosis statistics. According to Tabachnick and Fidell (2013), the data are considered to exhibit a normal distribution if the skewness and kurtosis values remain within the range of -1.5 to +1.5.

Table 2. Normality Tests for Scales

Variables	Center	Standard Deviation	Skewness	Kzurtosis (k)
Organization Performance	3,23	,871	-,214	-,293

Organizational Learning	3,53	,894	-1.273	,947
Artificial Intelligence Anxiety	2,71	1.022	,405	-,803

OP4	,921
OP5	,926
OP6	,921
OP7	,910
Total Explained Variance %	82,019
KMO	0,899
Barlett X2	1451,553
p	0,01

*p<0,05

As demonstrated in Table 2, an evaluation of skewness and kurtosis coefficients indicates that the values fall within the acceptable range of (-1.5, +1.5). This finding confirms that the normality assumption is satisfied, thereby justifying the use of parametric methods in the analysis.

Reliability Analysis Results and Comments on the Scales

In social science research, it is crucial to establish whether scales yield consistent measurements and demonstrate internal coherence between scale items. One of the most widely utilized methods for reliability analysis in this context is Cronbach's alpha coefficient, which determines internal consistency.

Table 3. Reliability Analysis Results and Comments on the Scales

Scales	Number of Statements	Cronbach's Alpha (α)
Organization Performance	7	,961
Organizational Learning	17	,974
Artificial Intelligence Anxiety	16	,976

Exploratory Factor Analysis Results and Interpretation

Exploratory factor analysis techniques were employed to statistically assess the construct validity of the scale. Initially, the KMO test and Bartlett's test were conducted to evaluate the scale's suitability for factor analysis. The KMO coefficient, which measures sample adequacy, was calculated. According to Kaiser, values closer to 1 indicate excellent suitability, while values below 0.50 are considered unacceptable. Specifically, a KMO value of 0.90 is rated as excellent, 0.80 as very good, 0.70 and 0.60 as moderate, and 0.50 as poor (Tavşancıl, 2005).

Table 4. CFA Results of Organizational Performance Scale

Scale Items	1
OP1	,871
OP2	,892
OP3	,899

As shown in Table 4, the results of the KMO and Bartlett's tests indicate that the organizational performance scale is suitable for exploratory factor analysis. The KMO value is 0.899, exceeding the critical threshold of 0.500, and Bartlett's test is significant (X^2 = 1451.553, $p < 0.05$). The scale demonstrates a normal distribution and was validated as a single-dimensional construct. No items with low factor loadings were identified, so no items were removed. The scale consists of 7 items with factor loadings ranging from 0.871 to 0.926, and the total explained variance is 82.019%.

Table 5. Organizational Learning Scale CFA Results

Scale Items	1
OL1	,841
OL2	,875
OL3	,905
OL4	,903
OL5	,890
OL6	,935
OL7	,939
OL8	,930
OL9	,927
OL10	,871
OL11	,903
OL12	,953
OL13	,915
OL14	,892
OL15	,891
OL16	,916
Total Explained Variance %	77,326
KMO	,941
Barlett X2	4745,255
p	0,000

*p<0,05

As shown in Table 5, the KMO value for the OL scale (KMO = 0.941) is greater than 0.500, and Bartlett's test is significant (X^2 = 4745.255, p < 0.05). These findings demonstrate that the scale is appropriate for exploratory factor analysis and conforms to a normal distribution. The scale was validated as a single dimension. "Item 17," which exhibited a low factor loading relative to the other items (factor loading = 0.326), was excluded from the analysis. The OL scale now comprises 16 items with factor loadings ranging from 0.841 to 0.953, and the total explained variance is 77.3262%.

Table 6. CFA Results of Artificial Intelligence Anxiety Scale

Scale Items	1
AIA1	,815
AIA 2	,714
AIA3	,865
AIA 4	,719
AIA 5	,876
AIA6	,903
AIA 7	,918
AIA 8	,903
AIA9	,928
AIA 10	,922
AIA11	,914
AIA 12	,928
AIA 13	,905
AIA 14	,881
AIA 15	,751
AIA16	,755
Total Explained Variance %	73,839
KMO	,913
Barlett X2	4350,351
p	,000

*p<0,05

As shown in Table 6, the KMO value for the artificial intelligence anxiety scale (KMO = 0.913) is above the threshold of 0.500, and Bartlett's test of sphericity indicates statistical significance (X^2 = 4350.351, p < 0.05). These results confirm that the scale is appropriate for exploratory factor analysis and demonstrates a normal distribution. The scale was assessed as a single construct, and no items with low factor loadings were identified, thus no eliminations were necessary. The artificial intelligence anxiety scale comprises 16 items, with factor loadings ranging

from 0.714 to 0.928, and the total explained variance is 73.839%.

Correlation Analysis Results

Within the scope of the research, correlation analysis was conducted to examine the relationships between the variables. The results of the correlation analysis between the variables are presented in Table 7 below.

Table 7. Correlation Analysis Results

	Organization performance	Organizational Learning	Artificial Intelligence Anxiety
Organization performance	1		
Organizational Learning	,714**	1	
Artificial Intelligence Anxiety	-,066	,145	1

Notes: p<0.01, *p<0.05 significant relationship, p>0.05 no significant relationship, 0≤r≤0.25 very weak, 0.26≤r≤0.49 weak, 0.50≤r≤0.69 moderate, 0.70≤r≤0.89 strong, 0.90≤r≤1 very strong (Akgül and Çevik 2003).

According to Pearson correlation test findings, a statistically significant positive correlation exists between organizational learning and organizational performance (r=0.714, p<0.01). No significant relationships were identified among the other variables.

Hierarchical Regression Mediated Effect Test Results and Interpretation

A mediating variable serves as a mechanism through which the independent variable influences the dependent variable. In mediation analysis, the independent variable affects the mediator, which subsequently influences the dependent variable. According to the Causal Step Approach, mediation can only be established if significant relationships exist between the independent variable, the mediator, and the dependent variable within the model.

If the inclusion of the mediator variable renders the relationship between the independent and dependent variables non-significant, this suggests full mediation. Alternatively, if the relationship weakens but remains significant, partial mediation is observed (Gürbüz & Şahin, 2017, p. 285). For mediation to be valid, the relationships between the independent and dependent variables, the independent and mediator variables, and the mediator and dependent variables must all be statistically significant (Baron & Kenny, 1986). Furthermore, the indirect effect of the

independent variable on the dependent variable through the mediator should be validated using the Sobel test (Sobel, 1982).

Table 8. Artificial Intelligence Anxiety Mediation Test Analysis Results

Variables	Organization performance β	Artificial Intelligence Anxiety β
Model1		
Organizational Learning	,696	x
p	0,001	x
F	182,425	x
R2	0,510	x
Fix it. R2	0,508	x
Model2		
Organizational Learning	x	,166
p	x	0,053
F	x	3,785
R2	x	0,21
Fix. R2	x	0,16
Model 3		
Artificial Intelligence Anxiety	-,066	x
p	,380	x
F	0,775	x
R2	0,04	x
Fix. R2	-0,01	x

Notes: p<0.05 significant effect, p>0.05 no significant effect; Hierarchical regression.

The analysis results reveal the following findings: In Model 1, organizational learning (OL) demonstrates a positive and statistically significant effect on organizational performance (OP), with β = 0.696 and p < 0.05. Therefore, Hypothesis H1, which posits that OL has a significant and positive effect on OP, is supported.

In Model 2, however, the effect of OL on artificial intelligence (AI) anxiety is not statistically significant, with β = 0.166 and p > 0.05. Given this insignificance, further mediation analysis is not feasible.

Model 3 additionally demonstrates that AI anxiety does not have a statistically significant effect on OP, as indicated by β = -0.066 and p > 0.05. Based on

these findings, the following hypotheses are not supported:

H2: OL has a significant and positive effect on AI anxiety.

H3: AI anxiety has a significant and negative effect on OP.

H4: AI anxiety mediates the relationship between OL and OP within organizations.

Conclusion

With the increasing use of artificial intelligence in organizations, employees may be concerned about adapting to technology. The development of artificial intelligence technologies may lead to the automation of some jobs and change the role of the employee in the workplace, potentially leading to job losses. This situation may cause anxiety among employees, which may arise from the fear of job loss. This anxiety may negatively impact the performance of employees. The introduction of artificial intelligence applications within organizations requires employees to adapt to new tasks for which they may lack prior experience with innovation (Yin et al., 2024; Şeker et al., 2024). This scenario can generate anxiety among employees. The emergence of artificial intelligence aims to reshape the nature of work and the dynamics of relationships between workers and machines. Managers are required to develop strategies to address these changes because AI applications will significantly transform the way managers and employees perform their jobs (Kolbjørnsrud et al., 2017: 37; as cited in: Şeker et al., 2024). This change may negatively impact OP.

According to the findings derived from the analysis of the research data, OL has a positive and statistically significant effect on OP (β=0.696, p<0.05). Hypothesis H1, which states that OL has a significant and positive impact on OP, is supported. However, the effect of OL (β=-0.066, p>0.05) on artificial intelligence anxiety is positive but not statistically significant. Hypothesis H2, which posits that OL has a significant and positive effect on AI anxiety, is therefore rejected. Similarly, the effect of AI anxiety on OP was also found to be non-significant (β=-0.066, p>0.05). Hypothesis H3, which suggests that AI anxiety has a significant and negative impact on OP, is also rejected.

In the study conducted by Şeker et al. (2024), it was identified that artificial intelligence anxiety negatively impacts organizational learning. Consistent with this finding, OL has been shown to positively influence OP in various studies (İnthavong et al., 2023; Başar, 2022; Isa and Muafi, 2022). However, it is possible that artificial intelligence anxiety, which adversely affects OL, may also have a detrimental effect on OP. Nevertheless, as highlighted, this effect was found to be statistically insignificant in the present study.

The Role of Artificial Intelligence Anxiety in the Relationship Between Organizational Learning and Performance in Organizations

In social sciences, the variability in results across studies is a common issue. Differences in methods, data collection techniques, measurement tools, sample populations, and operational definitions of variables may produce varied results. Therefore, it is crucial for researchers to consider such differences when interpreting findings. It is recommended that the relationships explored in this study be further investigated through both qualitative and quantitative methods across diverse populations and samples to enhance the robustness of findings.

Concerns regarding artificial intelligence may have a detrimental effect on organizational performance. Such negativity can impair the organization's competitive capacity. Consequently, managers are encouraged to proactively address these issues to mitigate the potential adverse impacts of AI-related anxiety.

Managers are advised to reduce these concerns by implementing appropriate strategies to ensure that employees work efficiently with AI. Managers should also assist employees in adapting to new technologies through targeted training and support programs. Reducing or, if possible, eliminating AI anxiety in organizations can enable employees to enhance their skills and make their work processes more efficient. In this way, it contributes to improving OP and helping organizations achieve a competitive advantage. For developing countries like Turkey, the enhanced performance of organizations can generate significant added value. Within this context, the research findings hold substantial importance. Addressing concerns regarding artificial intelligence not only improves organizational performance but also positively affects employees' overall job satisfaction and psychological well-being. When employees perceive AI as a facilitator of business processes rather than a threat to their roles, they adopt a more open and collaborative approach to AI technologies. This shift paves the way for the development of a more innovative work culture within organizations.

To effectively integrate AI, organizations must prioritize enhancing employees' knowledge and awareness of these technologies. Training programs can assist employees in not only learning to utilize AI but also in understanding how these technologies align with organizational goals. For example, highlighting how AI can take over repetitive and time-consuming tasks, thereby enabling employees to focus on more strategic and creative work, can positively shift employees' perceptions. Additionally, fostering open communication within organizations allows employees to express their concerns regarding AI. Managers play a critical role in addressing these concerns and providing viable solutions, helping employees feel more confident and secure during the transition. Implementing such supportive mechanisms is essential to enabling employees to view AI as a tool for support rather than a threat.

Furthermore, organizations must approach AI adoption within an ethical framework. Employees need assurances that AI technologies will not compromise their job security and that their personal data will remain protected. Providing such guarantees fosters mutual trust between employees and management, which not only enhances current performance but also supports long-term sustainable growth. In developing countries such as Turkey, integrating AI technologies into business processes presents significant potential for enhancing global competitiveness.

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Bibliometric Analysis and Systematic Review of Neuroscientific Studies in Fashion Design Literature[1] doi

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Abstract

With the development of technology, neuroscience tools have facilitated the processes of understanding and predicting human behavior in different sectors within the scope of marketing strategies. The aim of this study is to explicate the neurofashion concept examining the current studies conducted in fashion design with neuroscience tools. Thus, it aims to evaluate the methods and results of applied studies effectuated in fashion industry and to offer novel perspectives. Accordingly, the study data was obtained in two stages. In the first, the publications in the Scopus (Elsevier) database were analyzed with the R-based Biblioshiny package program considering year, country, keyword, author and citations using the bibliometric analysis method. In the second stage, the systematic literature review method was used with the Google Scholar scientific search engine. Of the searches made with keywords on the search engine, those related to the subject were selected and examined. The study is one of the first in the field to examine the relationship between fashion design and neuroscience and is therefore important.

According to the information obtained from the research; use of neuroscience tools in fashion design allows fashion design and production processes to be carried out in-depth and with a more scientific perspective, contributing to sectoral sustainability and efficiency. It reveals that the predictions made using neuroscience tools have a much higher accuracy rate than those based on personal reports. These results indicate that use of neuroscience tools will directly reduce declines in product renewal and product marketing in the fashion design step.

Keywords: Neuromarketing, Neuroscience, Fashion Design, Bibliometric Analysis, Systematic Literature Review.

JEL Codes: D87, L67, M3

[1]"This study was prepared based on the data obtained to provide a foundation for the ongoing doctoral dissertation titled 'Analysis of the Garment Prototyping Phase through Neuroscientific Tools' conducted within the Department of Fashion Design at the Graduate School of Ankara Hacı Bayram Veli University."

Introduction

Factors such as the advancement of technology, intensification of competition, social changes and increased consumer awareness have changed the behavior and preferences of consumers. With this change, consumer decision-making processes have evolved into a more complex and in-depth structure. Consumers' preferences are no longer shaped only by logical considerations; their emotional reactions are also becoming an important factor affecting their purchasing decisions (Yücel & Çubuk, 2014:133). While traditional marketing approaches focused on the product, today marketing has shifted its focus towards consumers. With this change, identifying consumers' wants and needs and understanding the factors affecting their purchasing behavior have become of great significance for marketing. Use of neuromarketing techniques in marketing research has also developed with this changing understanding. Neuromarketing techniques are used to reveal consumers' true feelings and true thoughts concerning the products or services at both conscious and subconscious levels (Bağçı, 2022:30).

The neuromarketing concept is defined as a discipline studying and investigating the changes that occur in the brains of individuals in decision-making processes and behaviors in areas such as market research, product and service design, brand positioning, communication and pricing (Tejada-Escobar, Fajardo-Vaca, & Vásquez-Fajardo, 2015). From another perspective, it is a tool that endeavors to understand what goes through the minds of consumers when they come into contact with a product or brand (Lindstrom, 2008:14). In traditional research methods, the results obtained in these methods are limited since the participants convey their behaviors, perceptions and attitudes at the conscious level, that is, they present subjective data, whereas neuromarketing increases the reliability of the research since it allows obtaining objective data from the subconscious level (Manas-Viniegra, Nunez-Gomez, & Tur-Vines, 2020:2). Generated from the combination of neuroscience and marketing, neuromarketing is based on analysis of brain responses triggering marketing and communication stimuli in consumers (Ju´arez-Var´on, Mengual-Recuerda, Capatina, & Nú͂nez Cansado, 2023:2). As a new way of understanding the consumer, this concept was introduced by Dr. Ale Smidts in 2002 (Hubert & Kenning, 2008).

Also known as emotional marketing, Neuromarketing is an important step in opening and understanding the black box in the human mind (Emül & Yücel, 2021:10; Yücel & Çubuk, 2014:223). Neuromarketing findings offer powerful new perspectives to the field of consumer research by revealing that the average consumer does not always make conscious and deliberate decisions, rather he/she is influenced by subconsciously formed preferences. This reaction is a result of the functioning of the human brain which tries to save energy and produce quick and effective actions. Since most purchase decisions take place at a subconscious level, consumers often have insufficient awareness regarding the reasons behind their decisions and choices (Lee, 2021:185).

Neuromarketing is prioritized in research conducted in many sectors such as industrial production. Employees' emotions are of high importance for the operational efficiency of businesses and working performance of the staff. The way to understand the emotions of individuals is through study of their neural activity (Li, Wang, & Wang, 2017:370).

Especially, fast-moving consumer goods, telecommunications, banking and tourism sectors are among the most prominent areas of research. On the other hand, the successful results obtained despite the lack of sufficient theoretical basis, numerous repeated scientific experiments, ethical issues and various procedures have increased the interest in applied fields such as fashion industry, product design, gastronomy and automotive sector in neuromarketing studies (Kurtoğlu & Ferman, 2020:74). Significance of neuromarketing studies is remarkable for the fashion industry which is full of brands, trends and visual images (Touchette & Lee, 2017:4).

Today, fashion industry is one of the most polluting sectors in the world. For this reason, in recent years many apparel companies, including fast fashion brands, have committed to producing sustainable fashion products, using recyclable textile materials, or have taken various steps to eliminate textile waste as part of their business operations (Marko & Kusa, 2023:87). In this context, consumer forecasting studies with neuromarketing tools can make significant contributions to the development of the sustainable fashion industry. Thanks to these tools, consumers' emotional and cognitive responses to sustainable fashion products and brands can be perceived.

Studies to predict consumers' consumption behavior can guide brands in developing sustainable product and marketing strategies. For instance, neuromarketing tools such as EEG (Electroencephalography) and fMRI (functional Magnetic Resonance Imaging) can help identify how consumers visually process sustainable fashion products and what emotional responses they have to these products, as well as guide fashion brands in developing sustainable product and marketing strategies.

Studies using neuromarketing tools indicate that unconscious perceptions are more common than conscious perceptions. The perception that we often make choices based on emotions or ideas beyond our rational control has played a key role in the development of modern theories of consumption (Feghali, 2010:91). Therefore, it shows how valuab-

le neuromarketing tools are in gaining a more profound understanding and more reliable prediction of consumer behavior.

Lack of awareness of neuromarketing activities by companies in the fashion industry has several financial implications and leads to losses rather than profits. Therefore, in addition to traditional market research, businesses need to be familiar with neuroscience techniques and the new trends involved in this field (Tejada-Escobar, 2015:33). In 2005, in the US alone, companies spent over 7.3 billion dollars on market research. In 2007, this amounted to $12 billion, not including additional costs such as product marketing, packaging, TV commercials, outdoor advertising, celebrity and top model fees. This shows that traditional practices have lost their effectiveness today and it is very important to adopt and implement up-to-date technological practices as soon as possible (Feghali, 2010:92).

Since neuromarketing measures the reaction of consumers' brains to marketing stimuli in real time, it allows for an unbiased and unfiltered understanding of consumers' purchasing decisions. TJ Maxx, an apparel company, collaborated with Mindlab International, a neuromarketing research company, to analyze consumers' brain responses while shopping using brain activity monitoring technologies such as EEG. Research has found increased brain activity associated with surprise, satisfaction and reward when customers encounter luxury brands. Such findings provide companies with valuable insights to inform store organization and product placement. For example, a company like TJ Maxx can design store layouts to increase the feeling of a treasure hunt among customers, which in turn encourages the mobilization of positive emotions, spurring more sales (Touchette & Lee, 2017:3-4).

Techniques Used in Neuromarketing

Neuromarketing techniques are generally known for brain imaging systems. Neuromarketing utilizes brain (neurometric) and physiological (biometric) measurement techniques to understand consumers' conscious and subconscious responses, and these two techniques should support each other (Erdemir, 2015). We can classify the techniques used in neuromarketing as techniques that measure metabolic activities in the brain, techniques measuring electrical activities and techniques that measure activity outside the brain (Bercea, 2012:2).
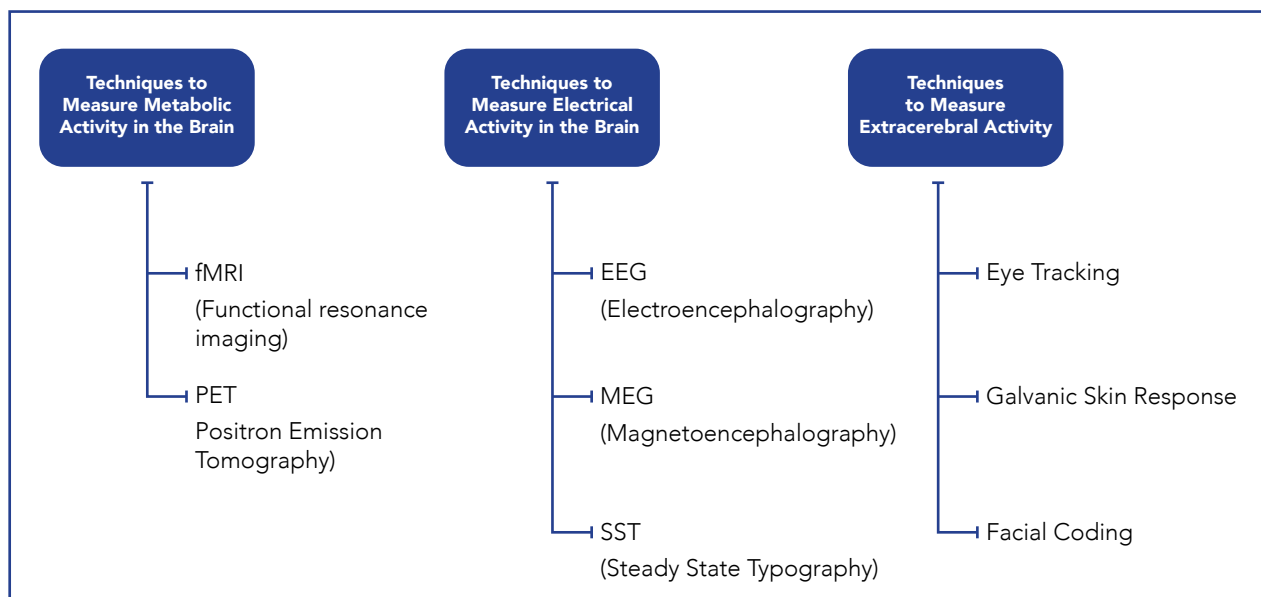
Figure 1. Techniques Used in Neuromarketing

Source: (Bağçı & Bostan, 2022)

In this context, the literature review was conducted on the use of neuromarketing tools in the field of fashion design in Scopus (Elsevier) and Google Scholar databases identified publications in different fields. It was observed that the publications were mainly in the fields of "Business, Marketing, Economics, Social Sciences, Arts and Humanities". Regarding the scope of the subject, it is revealed that the publications are mainly dealt with titles such as "Fashion Industry, Neuromarketing, Brand Image, Sustainability, Fashion Psychology, Consumer Behavior".

The aim of this study is to explicate the concept of "neurofashion" by examining the current status of studies conducted in the field of fashion design with neuroscience tools. Thus, it is aimed to offer new perspectives for future research by evaluating the methods and results of applied studies conducted in the fashion industry. It also provides an important contribution to understanding the effects of fashion on the brain and behavior by revealing the scope

and development of research at the intersection of the two disciplines. Furthermore, by identifying gaps in the literature regarding the integration of neuroscientific approaches into fashion design, it aims to provide direction for future research in this field. This study, which examines the psychological and neurological dimensions of fashion design in more depth, has the potential to be an important reference point for both academic circles and practical applications by contributing to the knowledge of the field.

Accordingly, the study data were obtained in two stages: bibliometric analysis and systematic literature review. The research questions are presented in Table 1.

Table 1. Research Questions

Analysis Type	Research Question
Bibliometric Analysis	What is the distribution of publications on fashion design with neuroscience tools according to years?
	How are the number of documents and citation scores of the top five journals according to the number of citations?
	What was the distribution of the authors who contributed to these studies by country and how was the collaboration realized?
	What are the top 10 most cited publications?
	What are the keyword phrases used in studies on fashion design with neuroscience tools?
	What was the relationship between the keywords of these studies?
Systematic Literature Review	What are the main research trends in neuroscience in relation to the field of fashion design?
	In the field of fashion design, studies in the field of neuroscience have been carried out in which areas the most.

Method

In this study, descriptive research method was used to delve into the current status of studies conducted in the field of fashion design with neuroscience tools. A descriptive review is a methodology used to

obtain generalizable results in a field of research by screening and analyzing the most relevant articles and begins with a systematic screening strategy (Koçak Usluel et al., 2013:55). A topic makes progress when it is logically integrated on the basis of the findings of previous studies. Having been applied as a research methodology, literature reviews contribute significantly to the conceptual, methodological and thematic development of different fields (Paul & Criado, 2020:1). In order to shed light on the concept of neuromoda and to put forward new ideas for future research, the data obtained were carried out in two stages: bibliometric analysis and systematic literature review.

Constituting the first stage of the research, Bibliometric analysis is a systematic method extensively used to research and analyze large volumes of scientific data. This method allows to uncover information on how a particular field or a concept has developed, while explaining emerging issues in that field (Gerçek, 2022:207). Bibliometric research is an important tool that provides guidance for future scientific studies by identifying the most influential studies, researchers and countries in the field under study. These studies elucidate developments in the scientific literature by revealing interactions between researchers and countries (Gülmez, Oğuz, & Yalçıntaş, 2020:91).

The bibliometric analysis of the data obtained through databases such as Clarivate Analytics Web of Science, Scopus, Google Scholar and Science Direct provides researchers with detailed information on the topics they are researching and provides guidance for new research to be conducted. At this stage, Scopus was preferred as a database for it contains a richer collection of publications focused on the field of fashion design, offering a more comprehensive resource to researchers than other databases. In the first stage of the study, a bibliometric analysis of the studies on the concepts of "neuromarketing" and "fashion design" in the Schopus (Elsevier) database was conducted.

Concurrently, the systematic literature review, which constitutes the second stage of the research, is a special type of literature review and provides additional advantages. This type of review uses systematic and explicit methods to identify, select and critically evaluate relevant research. It also scrutinizes a specific problem by clearly formulating it and collects and analyzes data from included studies (Siddaway, Wood, & Hedges, 2019:751). A systematic literature review is the process of finding, evaluating and summarizing the most relevant studies available to answer a specific research question. It is also recognized as an effective research methodology for synthesizing and presenting the results and findings of a detailed review of studies in an organized, clear and reproducible manner (Yıldız, 2022:367).

Bibliometric Analysis and Systematic Review of Neuroscientific Studies in Fashion Design Literature

This part of the study was conducted by Yıldız et al according to the stages adapted from Tranfield. The process followed is illustrated in Figure 2.

The process followed for the Systematic Literature Review was carried out in 3 steps and the research was conducted on Google Scholar search engine. The reason why Google Scholar was preferred is that more directly relevant publications can be accessed on this platform compared to searches in other databases.

The Process Followed in Systematic Literature Review
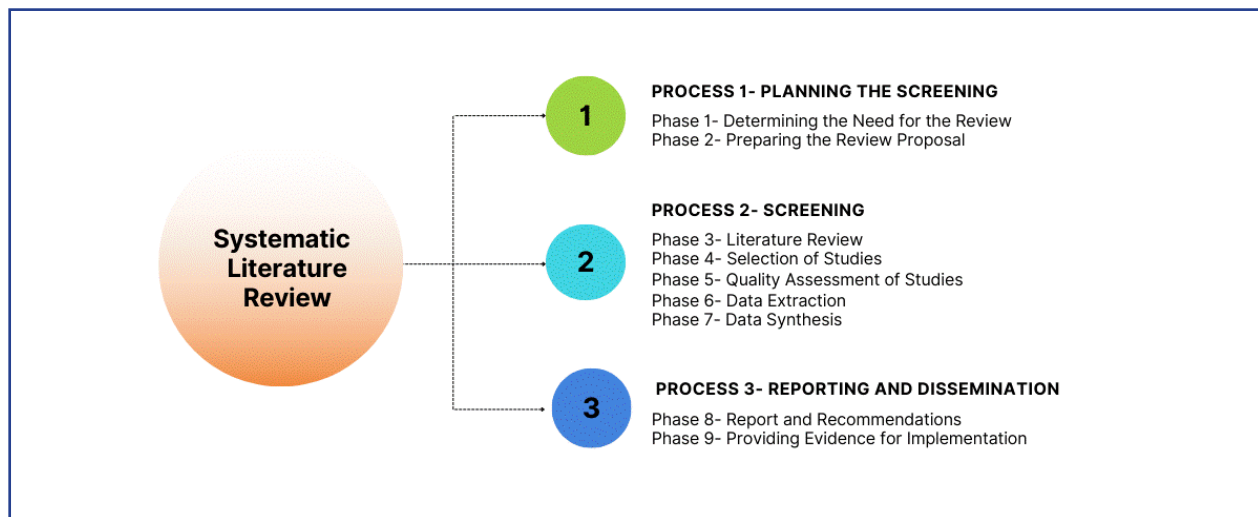
Figure 2. Systematic Literature Review
Source: (Yıldız, 2022:372)

Process-1 Planning the Screening

The first process of the Systematic Literature Review consists of "Determining the Need for the Review" and "Preparing the Review Proposal".

In the first phase, we frame the research questions according to the observed research gaps. The main aim is to examine the current state of research in the field of fashion design with neuroscience tools. It is also to clarify the concept of neuromoda and to address the advantages and disadvantages of studies with neuroscience tools.

In the second stage of the process, creation of the Screening proposal, the research question is first defined. Then, inclusion and exclusion criteria are determined in accordance with the purpose of the review. This stage is very important for the study to be carried out in an objective manner (Yıldız, 2022:371).

In this part of the study, answers were sought to the following questions:

•   What are the main research trends in neuroscience in relation to the field of fashion design?

•   In the field of fashion design, in which areas the studies in the field of neuroscience have been mainly carried out?

Process-2 Screening

The third stage of the process consists of "Literature Review", "Selection of Studies", "Quality Assessment of Studies", "Data Extraction" and "Data Synthesis". In this process, the search query is defined by combining the terms or keywords obtained from the research questions. Accordingly, on 05.10.2024, the keywords "neuromarketing and fashion" were typed into the Google Scholar search engine and the relevant results were listed. In the initial screening, 3,600 data were listed. In line with the inclusion criteria, only articles were included in the review and the number of data was reduced to 235. As for the time period, the year range 2013-2024 was chosen as it provides the most relevant results within the scope of the subject in the Schopus database. In line with the filtering based on the inclusion and exclusion criteria, 205 relevant publications were listed and reviewed.

Process-3 Reporting and Dissemination

TThe last step of the process consists of "Report and Recommendations" and "Providing Evidence for Implementation". In the last step, the results of the analysis are reported in two separate sections.

Figure 3 shows the stages of data analysis with Bib-
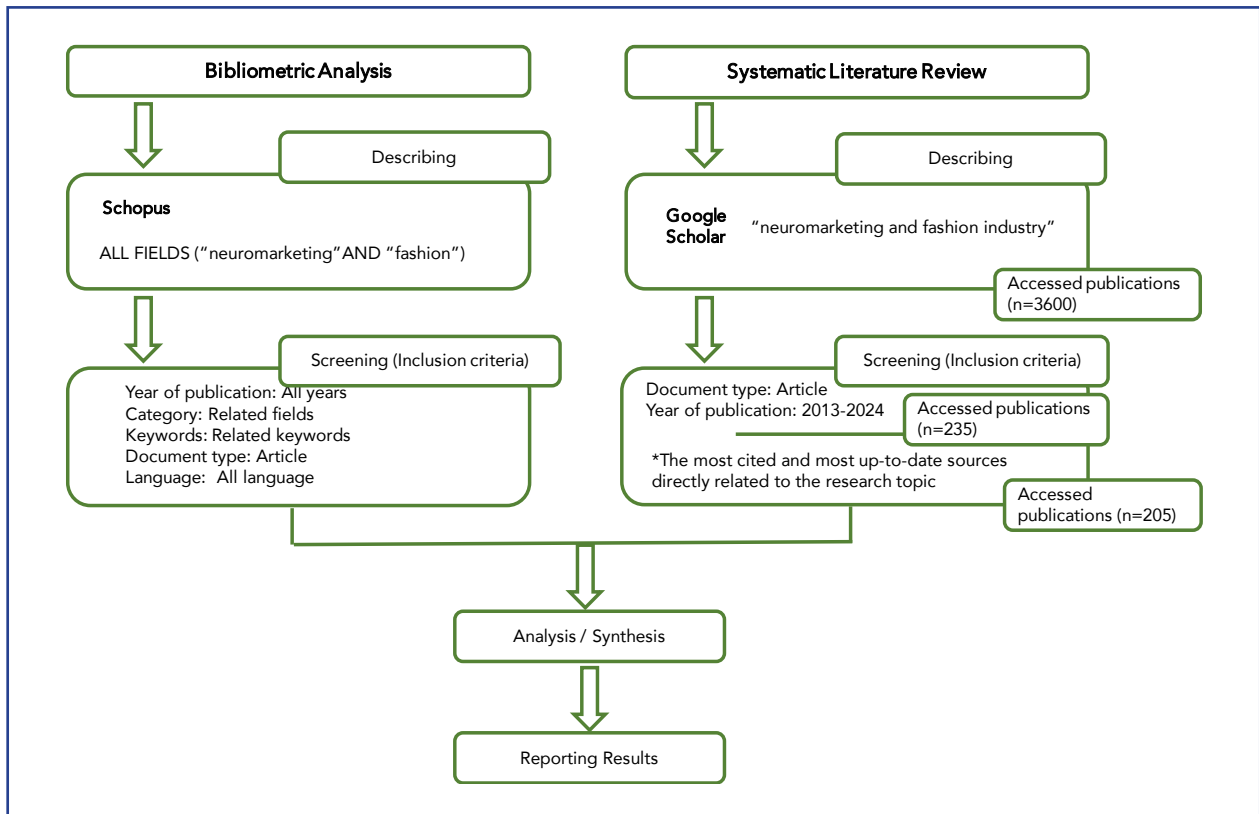
Figure 3. Bibliometric Analysis and Systematic Literature Review Stages

Source: (Jain, et. al., 2022:1532)

liometric Analysis and Systematic Literature Review.

On 05.10.2024, 409 results were obtained from the Scopus database by selecting "all fields" with the words "neuromarketing" AND "fashion" for the years 2007-2024. Then, the subject areas (Social Sciences, Arts and Humanities, Multidisciplinary, Psychology, Business Administration, Management and Accounting), which were predicted to be suitable for the scope of the research, were selected from all fields and the total number of data obtained in the scanning made by filtering the keywords related to the subject was 159. Table 2 shows the publication distribution of the results obtained regarding the specified restrictions in the Schopus database. Only articles were included in the scope of the research and 138 studies were analyzed.

Table 2. Publication Distribution in Scopus (Elsevier) Database

The files downloaded from the Schopus database in BibTeX format were transferred to the R-based Biblioshiny package program, were examined and interpreted by visualization.

In the second stage of the study, the systematic literature review (SLR) method is used. For the articles that could not be accessed in Schopus databases, the 10 most closely related publications were accessed via Google Scholar search engine with the keywords "neuromarketing in fashion design" and analyzed with this method.

Findings

The findings regarding the documents analyzed within the scope of the research questions of the study are presented below.

Bibliometric Analysis Findings

Figure 4 shows the publications containing the keywords "neuromarketing" and "fashion" and the distribution of citations received by these publications according to years. When the table is analyzed, it is found that the oldest publication was made in 2013 and the newest in 2024. The highest number of publications was recorded in 2023 with 40 publications. Especially after 2016, there has been a signifi-

Publication Type	Number of Publications
Article	138
Book	4
Declaration	9
Conference	8
Total	159

cant increase in the number of publications dealing with the concept of fashion in the field of neuromarketing, while looking at the number of citations, 12 different publications made in 2019 attract attention
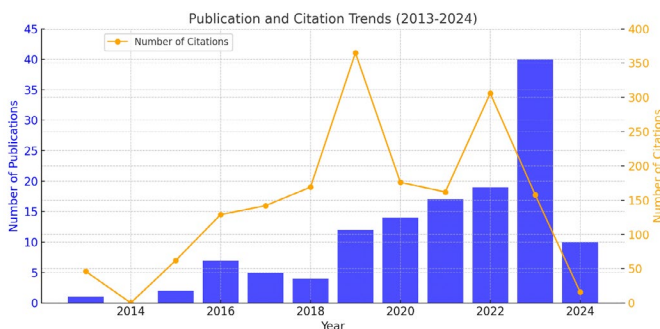
Figure 4. Relationship between Number of Publications and Number of Citations by Year

with 365 citations.

The number of documents and citation scores of the top five journals according to the number of citations are given in Table 3. Analyzing the table, it is seen that "Journal of Retailing and Consumer Services" ranks first with 20808 citations and 16.1 citation points. The journal is an international and interdisciplinary forum for research and debate in the rapidly evolving and transforming fields of retailing and service studies. It is a peer-reviewed, open access journal with a particular focus on consumer behavior, policy and managerial decisions.

No	Journal Name	Number of Documents	Number of Citation	Citation Score (2022*)
1	Journal of Retailing and Consumer Services	5	20.808	16,1
2	Physiology and Behavior	1	8.010	6,3
3	Tourism Review	1	4.359	12,8
4	Journal of Business Research	7	51.538	16
5	Journal of Fashion Marketing and Management	1	1.243	7,9

Table 3. Top Five Most Cited Journals in the Subject
(* The Scopus database includes data for 2022 as the current citation score.)

Figure 5 illustrates the distribution of the number of publications accessed with the relevant keyword group according to countries. It is seen that there are 47 countries in total, including Turkey. Italy, which ranks first among the 138 publications reached in the review, stands out with 52 publications. After Italy, Spain ranks second with 35 publications. These countries are followed by China with 31 publications, the USA with 25 publications, India with 24 publications and South Korea with 18 publications. Turkey has 1 publication.

When the cooperation network between the countries of the 138 publications accessed with the relevant keyword group is analyzed, it is seen that Italy and the USA, Spain and Portugal, India and the United Kingdom, and the USA and France are among the countries that work together the most.
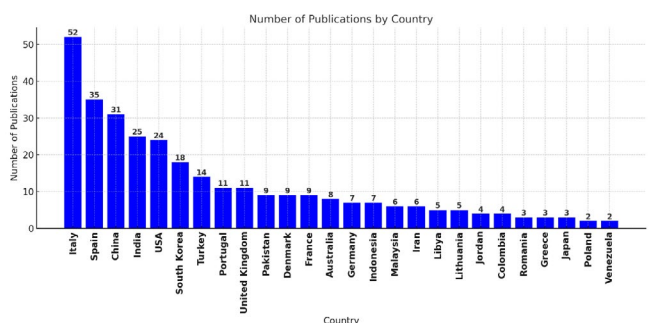
Figure 5. Distribution of the Number of Publications Accessed with the Related Keyword Group by Country

Table 4 presents information on the top 10 most cited studies on the subject. Accordingly, the first ranked study by Roh, T., Seok, J., Kim, Y. titled "Unveiling ways to reach organic purchase: Green perceived value, perceived knowledge, attitude, subjective norm, and trust" received 120 citations in the Schopus database. Among the top 10 most cited articles, the United Kingdom and South Korea stand

Table 4. Information on the Top 10 Most Cited Studies on the Subject

No	Title	Author	Magazine	Institution	Country	Year	Number of Citation
1	Unveiling ways to reach organic purchase: Green perceived value, perceived knowledge, attitude, subjective norm, and trust	Roh, T.	Journal of Retailing and Consumer Services, 67, 102988	Soonchunhyang University, Global Business School	South Korea	2022	120
		Seok, J.		KT Economics and Management Research Institute			
		Kim, Y.		Seoul Women's University, Department of Data Science			
2	The application of EEG power for the prediction and interpretation of consumer decision-making: A neuro-marketing study	Golnar-Nik, P.	Physiology and Behavior, 207, pp. 90–98	Neuroscience Research Center, Shahid Beheshti University of Medical Sciences	Iraq	2019	102
		Farashi, S.		Deputy of Research and Technology, Hamadan University of Medical Sciences			
		Safari, M.-S.		Brain Future Institute			
3	Electronic word of mouth in tourism and hospitality consumer behaviour: state of the art	Pourfakhimi, S.	Tourism Review, 75(4), pp. 637–661	University of the Sunshine Coast, Sunshine Coast, Australia	Australia, Sweden, New Zealand	2020	72
		Duncan, T.		Hogskolan Dalarna, Falun, Sweden			
		Coetzee, W.J.L.		Department of Tourism, University of Otago, Dunedin, New Zealand			
4	How to "Nudge" your consumers toward sustainable fashion consumption: An fMRI investigation	Lee, E.-J.	Journal of Business Research, 117, pp. 642–651	Sungkyunkwan Üniversitesi, Seul, Güney Kore	South Korea, China	2020	69
		Choi, H.					
		Han, J.		Pekin Moda Teknolojisi Enstitüsü, Pekin, Çin			
		Dong Hyun, K.		Yonsei Üniversitesi, Seul, Güney Kore			
		Eunju, K.					
		Kyung Hoon, K.		Changwon Ulusal Üniversitesi, Changwon, Güney Kore			
5	Omnichannel fashion retailing: examining the customer decision-making journey	Lynch, S.	Journal of Fashion Marketing and Management, 24(3), pp. 471–493	Cirencester, United Kingdom	United Kingdom	2020	65
		Barnes, L.		Manchester Fashion Institute, Manchester Metropolitan University, Manchester, United Kingdom			
6	Neuroscience-Inspired Design: From Academic Neuromarketing to Commercially Relevant Research	Spence, C.	Organizational Research Methods, 22(1), pp. 275–298	Crossmodal Research Laboratory, Oxford University, Oxford, United Kingdom	United Kingdom	2019	55
7	Using EEG to examine the role of attention, working memory, emotion, and imagination in narrative transportation	Gordon, R.	European Journal of Marketing, 52(1-2), pp. 92–117	Faculty of Business and Economics, Macquarie University, North Ryde, Australia	Australia, United Kingdom	2018	54
		Ciorciari, J.		Department of Psychological Sciences, Swinburne University of Technology, Hawthorn, Australia			
		van Laer, T.		Cass Business School, University of London, London, United Kingdom			

8	Empathy can incre-ase customer equity related to pro-social brands	Lee, E.-J.	Journal of Bu-siness Resear-ch, 69(9), pp. 3748–3754	Business School, Sungkyunkwan University, 53 Myeongnyun-dong 3-ga, Jongno-gu, Seoul, 110-745, South Korea	South Korea	2016	54
9	Better branding: Brand names can influence consumer choice	Hillenbrand, P.	Journal of Product and Brand Mana-gement, 22(4), pp. 300–308	Faculty of Business Administration and Accounting, Universidad Naci-onal Autónoma de México, Mexico City, Mexico	Mexico	2013	46
		Alcauter, S.		National Institute of Psychiatry Ramón de la Fuente Muñiz/Institu-te for Neurobiology, Universidad Nacional Autónoma de México, Juriquilla, Querétaro, Mexico			
		Cervantes, J.					
		Barrios, F.		Institute for Neurobiology, Universi-dad Nacional Autónoma de México, Juriquilla, Querétaro, Mexico			
10	Trust me if you can – neurophysiological insi-ghts on the influence of	Hubert, M.	European Journal of Marketing, 52(1-2), pp. 118–146	Department of Management, Aar-hus University, Aarhus, Denmark	Denmark, Germany, Switzer-land, Australia	2018	44
		Hubert, M.		Independent Researcher, Berlin, Germany			
		Linzmajer, M.		Institute of Retail Management, Uni-versity Sankt Gallen, Sankt Gallen, Switzerland			
		Riedl, R.					
		Kenning, P.		University of Applied Sciences, Upper Austria, Austria			

527 keywords were used in 138 articles that included the concepts of "Neuromarketing" and "Fashion Design" within the scope of the constraints determi-ned in the research. The word cloud created accor-ding to the intensity of the related keywords used in the studies is shown in Figure 6. In the word cloud created using R Studio software, letter sizes and thi-cknesses are arranged proportionally according to usage intensity. It is seen that the words consumer, neuromarketing, behavior, and brand are used much more frequently than other words in the publications scanned within the scope of the subject. In addition, it is noteworthy that keywords such as fashion, sus-tainable, purchase and influence are also prominent words in studies in the field of neuromarketing.

Figure 6. Word Cloud Created with Related Keyword Group

Findings of the Systematic Literature Review
Firstly, the title, keywords and abstract were analy-zed and the publications directly related to the re-search topic were selected. In this direction, general information about the 10 articles selected among the publications accessed and considered to be the closest to the subject scope is given in Table 5.

№	Author *	Year	Publication Name	Area	Data Collection Tool	Subject Area
1	Kurtoğlu, A.L. & Ferman A.M	2020	An exploratory research among fashion business leaders and neuromarketing company executives on the perception of applied neuro-marketing	Business, Marketing	Semi-structured interview form	Fashion Industry, Neuromarketing
2	Baldo, D.vd.	2015	Brain waves predict success of new fashion products: a practical application for the footwear retailing industry	Business	Survey and EEG	Brand Image, Neuromarketing
3	Balconi, M.vd.	2019	A neuroscientific approach to explore consumers' intentions towards sustainability within the luxury fashion industry	Social Sciences, Environment	Survey and EEG	Luxury Fashion Consumption, Sustainability
4	Lee, S.E.	2021	Teaching neuromarketing to fashion students: an application of Kirkpatrick's model	Arts and Humanities	Survey	Fashion, Education, Neuromarketing
5	Lee, E.-J.vd.	2020	How to "Nudge" your consumers toward sustainable fashion consumption: An fMRI investigation	Business	fMRI	Fashion, Sustainability, Neuromarketing
6	Martyniuk, O. & Poplavska, T.	2021	Neuromarketing in the Context of Sustainable Development Philosophy	Economy	Compiled data from primary and secondary sources	Sustainable Development, Neuromarketing
7	Li, B.R. Vd.	2017	A novel method for the evaluation of fashion product design based	Business, Economics	EEG and Eye Tracking	Fashion Product Design, Neuromarketing
8	Andrade, N.A. Vd.	2022	Neuromarketing and Eye Tracking in Women's Fashion Buying Decision Making	Marketing	Eye Tracking	Neuromarketing, Fashion Psychology
9	Ju´arez-Var´on, D. Vd.	2023	Footwear consumer behavior: The influence of stimuli on emotions and decision making	Business	Eye tracking and galvanic skin response, semi-structured interview form	Neuromarketing, Consumer Behavior
10	Marko, M. & Kusa, A.	2023	Greenwashing and the Nature of Education in Relation to Consumer Trust in Fashion Marketing Communication	Business, Social Sciences	Galvanic skin response, survey	Neuromarketing,

* Studies with more than two authors are cited as first author's information, et al.

In the study titled *"An exploratory research among fashion business and neuromarketing company executives on the perception of applied neuromarketing"* by **Kurtoğlu and Ferman (2020),** listed first in the table, the aim is to shed light on the neuromarketing literature and explore the perceptions of neuromarketing and fashion managers regarding applied neuromarketing in the global and Turkish fashion industry. Following a review of current literature on theoretical and applied neuromarketing, in-depth interviews were conducted with 3 Turkish neuromarketing managers and 5 fashion leaders using a semi-structured interview form. The findings demonstrate that there are differences and similarities between the use of applied neuromarketing in

the world and in Turkey. The in-depth interview findings reveal that the perceptions of Turkish fashion managers regarding neuromarketing differ from the previous literature and that there are different priorities for applying neuromarketing in fashion industry (Kurtoğlu & Ferman, 2020).

In the study titled *"Brain Waves Predict Success of New Fashion Products: A Practical Application for the Footwear Retail Industry"* by **Baldo et al. (2015),** importance of pre-market forecasting in the footwear retail sector is emphasized. The aim of the study is to propose a novel approach based on brain data to predict product success performance. Traditional methods have been found to be unreliable in forecasting consumer preferences, as demonstrated in

social and psychological market research studies. Therefore, use of brainwaves is proposed as a more accurate method for predicting the success in new fashion products. The significance of the study lies in the fact that the success rates of the numerous new products launched by retailers each year have a direct impact on retailers' gross profit, customer loyalty, and brand image. In this regard, application of a new forecasting method based on brain data is proposed, and the potential benefits of this method are discussed. The methodology of the study was carried out in two phases: Firstly, a quantitative method was employed with 40 female participants aged between 19 and 53. In this phase, participants were asked to complete a survey using a 5-point Likert scale. In the second phase, an experimental method using an EEG device was applied to measure the participants' brain responses to each pair of shoes. Participants evaluated the shoes in a simulated shoe store, rating them from 1 to 5, and then proceeded to the EEG experiment. In this phase, the participants were shown images of 30 pairs of shoes for 3 seconds and were asked whether they would purchase each pair. According to the findings of the study, using the brain data resulted in a prediction accuracy of 80%, and the brainwave-based predictions led to a 36.4% increase in profit (Baldo, Parikh, Piu, & Müller, 2015).

In the article titled *"A Neuroscientific Approach to Explore Consumers' Intentions Towards Sustainability within the Luxury Fashion Industry"* by **Balconi et al. (2019)**, a neuroscientific method was used to understand the implicit intentions of consumers regarding sustainability in the luxury fashion sector. The focus of the study is to analyze the implicit responses of consumers to sustainability issues in the context of luxury fashion while they are browsing in a store. In the study, an experimental method using EEG devices was adopted. Sixteen luxury consumers were divided into two groups: those sensitive to sustainability and those indifferent to it. After observing the store stimuli, participants interacted with a sales consultant who explained the brand's sustainability policy. The study suggests that luxury consumers focused on sustainability exhibit greater cognitive and emotional activity when exposed to sustainability-related cues, compared to non-sustainability-related topics. Furthermore, it was confirmed that an increased level of knowledge about sustainability leads consumers to perceive the stimuli more accurately and shows a significant delta power when interacting with the sales consultant explaining the brand's sustainability policy (Balconi, Sebastiani, & Angioletti, 2019).

Lee's (2021) article titled *"Teaching neuromarketing to fashion students: an application of Kirkpatrick's model"* has two main objectives. The former is to identify potential neuromarketing topics in order to enhance fashion students' understanding of marke-

ting and consumer behavior. The latter is to assess how students experience and learn about neuromarketing topics. The study was conducted with the participation of 92 students enrolled in three different courses, after identifying content related to fashion consumption and neuromarketing. To teach students the fundamental concepts and applications of neuromarketing, 13 modules were developed, and an online neuromarketing workshop was organized. Finally, a learning assessment based on the Kirkpatrick model was conducted. The research concluded that fashion students had a positive experience learning about neuromarketing, and their understanding of fashion consumers was enriched with new knowledge and ideas. The results of the study suggest a broad range of neuromarketing topics that can be used in fashion design, marketing, and retail courses. These topics include subjects such as the brain and mind, emotions, attention levels, neuroaesthetics, and the relationship between the brain and shopping (Lee S.-E. , 2021).

In the article by **Lee et al. (2021)**, titled " How to "Nudge" your consumers toward sustainable fashion consumption: An fMRI investigation" a significant difference is observed between consumers' attitudes toward sustainability and their green purchasing behaviors, which creates a psychological imbalance. Based on this, the study investigates how to enhance consumers' preferences for fashion products with green labels. In the experimental study, 16 participants were shown two videos containing educational animations: one with a preparatory message addressing "environmental issues" and another with an explicit intervention message explaining the concept of "sustainability. In the study, data obtained while participants were watching the videos were collected using the neuroscientific tool, fMRI. The results supported the hypothesis that seeing a green logo increases consumer preference. Additionally, the findings indicate that when environmental incentive messages are presented before shopping for a product, consumers' preferences for sustainable fashion products increase (Lee, ve diğerleri, 2020).

In the article by **Martyniuk and Poplavska (2021)**, titled *"Neuromarketing in the Context of Sustainable Development Philosophy"*, a literature review was conducted to identify the evolution and research trends in the fields of neuromarketing and marketing ethics. The researchers focused on the dominant consumer ideology in the modern world. Among the products of this ideology, fashion is characterized by elements such as wastefulness and profit-orientedness. Consumption is defined as the act of acquiring goods or services. Excessive consumption, which is widespread on a global scale, refers to acquiring more goods and services than needed. This situation is driving the entire system into a deep crisis. Some scholars believe that the way out of the crisis may lie in the interaction

between neuroscience and economics. Others view the solution as the development of a new way of thinking and a new paradigm. This paradigm must be introduced to the masses through education, thereby raising individuals' levels of consciousness and expanding their potential. The study emphasizes that the most objective responses are obtained from consumers, and it discusses the applications of neuromarketing in areas such as branding, product design and innovation, advertising effectiveness, behavioral triggers affecting purchasing decisions, digitalization, and the entertainment sector. It also includes global companies that use neuromarketing methods to achieve their goals. In conclusion, it can be argued that neuromarketing is a pioneering and promising technology in influencing society in the modern era. While its potential has not yet been fully realized or explored, these studies are among the high-budget expenditures in large corporations (Martyniuk & Poplavska, 2021).

In the study conducted by **Li et al. (2017)**, titled *"A Novel Method for the Evaluating of Fashion Product Design Based on Data Mining"* it is stated that predictions made using neuroscience tools are much more objective compared to traditional methods in the fashion design process. It is emphasized that a new scientific method is needed to evaluate the appearance of fashion products in order to improve traditional evaluation approaches. In this context, beauty is one of the fundamental standards in fashion product design. However, evaluating the beauty of a fashion product is a complex process. This process consists of three stages: comparing fashion products, evaluating various objects, and selecting the most beautiful one. In the fashion design process, an effective evaluation of the appearance of fashion products not only enhances design efficiency but also helps reduce wasted resources. According to the Stimulus-Organism-Response (S-O-R) model, human behaviors can be divided into stages of perception, evaluation, decision-making, and action. Among various product options, individuals frequently determine their preferences. Therefore, an individual's preference behavior involves an evaluation of the product design. 15 female participants took part in this study which employed an experimental method and aimed to develop quantitative evaluation factors related to product appearance, EEG and Eye-Tracking devices were used to collect the data. The women's shirts visually used in the study were divided into seven categories based on technical features, and the participants' preference levels were identified. This method not only scientifically evaluates the product's appeal but also provides an objective reference for improving product appearance design (Li, Wang, & Wang, 2017).

In the study titled *"Neuromarketing and Eye-Tracking in Women's Fashion Buying Decision Making"* conducted by **Andrade, N.A. et al. (2022)**, the re-

search presents an overview of studies related to the use of eye-tracking in consumer research on women's fashion preferences. The study emphasizes that understanding what consumers want is one of the most critical elements of retail success. According to the data obtained in the study, the importance of understanding the cognitive aspects of the customer decision-making process is appreciated by various industries. Leaders of international e-commerce giants and other e-commerce retailers are adopting advanced applications, such as brainwave-based thermal mapping and eye-tracking data, to maintain emotional connections with various market segments, replacing traditional surveys. The researchers highlight that despite numerous studies using neuroscience tools, there are still many unexplored topics in the fashion industry. The study mentions that using eye-tracking devices can help determine "which information consumers pay attention to and in what order" and "which information or visual elements are noticed and which are ignored." Furthermore, it is suggested that this technology can also identify which products on a store mannequin are perceived, which brands attract the most attention, and which information formats or designs capture consumers' attention most effectively (Andrade, Raqinatto, & Cohen, 2022).

In the article by **Juárez-Varon et al. (2023)**, titled *"Footwear Consumer Behavior: The İnfluence of Stimuli on Emotions and Decision Making"* the effectiveness of stimuli used to guide consumer purchasing decisions in a fashion footwear store is experimentally analyzed. The study focuses on the analysis of consumer behavior and how brain activation is influenced through stimuli created by the brand in retail settings. The researchers stated that the decision-making process is influenced by four main factors: cultural factors, social factors, personal factors, profession, and economic status. The research sample consisted of 20 female and 10 male consumers who had purchased at least one product from the brand, in accordance with the target consumer profile specified by the brand. Special stimuli were placed within the store to enhance the brand's value. After participants were informed about the customer journey map, they experienced the shopping process with various stimuli within the store. According to the results of the study, the most attention-grabbing element in the store windows was the entrance, while the least attention-grabbing element was the brand. Areas that generated the highest emotional intensity included the store entrance, women's footwear section, central accessory area, and checkout area, all of which involved product or social interaction. The cashier area, the attention of the cashier, and the payment process resulted in the highest level of emotional intensity. Qualitative interviews revealed that the consumers' primary focus was on the products, though they also valued the store's decor and

the attention of the staff. As a result, one of the key findings was that the product's placement attracted more visual attention and engagement than stimuli based solely on decoration. The major contribution of this research is that it shows how stimuli related to special resting and leisure areas, moments when consumers touch products, and the attention of employees are key moments at the emotional and memory level (Ju´arez-Var´on, Mengual-Recuerda, Capatina, & Nú~nez Cansado, 2023).

In the article titled *"Greenwashing and the Nature of Education in Relation to Consumer Trust in Fast Fashion Marketing Communication"* by **Marko and Kusa (2023)**, a neuromarketing study was conducted on fast fashion brands. The study describes how a sample of Generation Y and Z consumers, both knowledgeable and unaware of greenwashing, is influenced by fast fashion brands' marketing communication in terms of customer loyalty. The study focuses on Generation Y's resistance and emotional responses to deceptive advertising messages showing greenwashing from the fashion brand H&M. A sustainability-themed commercial from H&M was shown to both conscious and unconscious participants regarding sustainability. The results indicate that the consumer group lacking sustainability awareness had a more positive perception of the messages in the film. Consumers with insufficient knowledge cannot assess the advertisement messages accurately and rationally, and the brand may appear more valuable in their eyes. The study emphasizes that environmental education is the key to eliminating deception and ensuring consumers evaluate the messages correctly (Marko & Kusa, 2023).

Conclusion

This study elucidates field research by examining the current status of studies conducted in fashion design with neuroscience tools through the years 2013 and 2024. According to the data obtained in two stages; application of neuroscience tools in fashion design has attracted more and more attention in recent years. Today's intense competitive environment has had a direct impact on the marketing strategies of businesses, which has led to elate the importance of marketing approaches that enable direct interaction with the consumer, allow the consumer to be monitored in every aspect, aim to create large customer portfolios and aim to be constantly in the minds of the consumer (Bayır, Yücel & Yücel, 2018:253). In this context, neuromarketing stands out as a versatile tool for brands in the fashion industry to achieve these strategic goals. Especially after 2016, there has been a significant increase in the number of publications in the field, and by 2023, the number of publications has increased significantly compared to the previous year, indicating that the integration of neuroscientific methods into the fashion design

process is becoming increasingly adopted.

Based on systematic literature review, it is worth mentioning that the publications on "neuromarketing" and "fashion design industry" were more limited compared to other fields, but there has been a significant increase in the number of studies on these subjects in the last 10 years. Rapidly evolving industries, especially telecommunications, banking and tourism, have been the prime beneficiaries of these insights, while the fashion industry has increasingly benefited from the in-depth consumer understanding provided by neuromarketing (Kurtoğlu & Ferman, 2020:73). The fashion design industry potential to create more informed and emotionally-based consumer experiences by utilizing neuromarketing techniques plays a significant role in increasing research in this field. Furthermore, the growing interest in the applicability of neuromarketing to the fashion design industry is developing in parallel with the advances in technology and innovation. In recent years, the development of neural and biological data collection methods has made it possible for fashion brands to analyze consumer perceptions thoroughly, leading to a rapid increase in research. This trend reveals that the fashion industry should be driven not only by aesthetic considerations, but also by psychological and neuroscientific factors.

Unlike traditional marketing methods, studies conducted using neuroscience tools have shown more objective results and higher prediction accuracy. According to Baldo et al.'s study, the capacity of self-report-based methods to accurately predict success is limited, and the use of brain data can reach up to 80% prediction accuracy. We also compared how both methods would affect the company's gross profit. Simulations based on sales data indicated that the self-report-based forecast would lead to a 12.1% increase in profits, while the brain scan-based forecast would increase profits by 36.4%. These findings demonstrate the potential of neuroscientific approaches to improve the performance of brands. concurrently, creating significant value for organizations, shareholders and consumers, this innovative method strengthens brand image using brain data significantly (Baldo, et al., 2015:61).

Among the topics addressed in neuromarketing studies, consumer preferences and sustainability concepts stand out. Despite the laborious process involved in designing and selecting products for production, a large portion of these products fail because they do not meet consumer expectations and needs, resulting in failure. Products that do not meet consumer desires and expectations lead to a large amount of unsold stock. As a result, customers are unable to find the products they want in the store, reducing their satisfaction. At this point, creating brand value, producers need to provide clear responds to questions such as "why should the

consumer prefer this brand and why should they be loyal to this brand?". For the consumer, this explains the value creation process more clearly (Yücel & Çubuk, 2014:223). Seeking answers to these questions, neuromarketing allows them to accurately understand consumers' expectations and offer products accordingly. Thereby, brand value is shaped more clearly for the consumer and a strong bond can be established between the brand and the consumer.

Discounts make products attractive, nonetheless, it can have a negative impact on brand image. Fashion retailers can fail due to designs not capable of meeting consumer expectations, leading to the accumulation of unsold stock. The main reasons for these failures include incorrect pricing, lack of design and incorrect packaging (Baldo, et al., 2015:62). As a result, customers may lose trust in the brand, making rebuilding the brand's reputation a long and costly process. Therefore, accurately predicting consumer preferences is of great economic and environmental importance for manufacturers.

According to Tejada-Escobar et al., many large and small apparel businesses lack knowledge about the effects of neuromarketing on sales management. This deficiency negatively affects financial performance and leads to losses, especially due to increased and inefficient advertising expenditures. In this context, businesses' knowledge of neuroscientific research methods and new marketing trends such as neuromarketing will allow them to accurately analyze consumer mental processes (2015:38).

Neuroscience tools used in marketing activities are regarded as an effective way to reduce the failure probability because these tools allow brands to develop more accurate strategies by analyzing consumer behavior in depth. A product becomes fashionable when it is sold and adopted by consumers in the market. Fashion is ultimately shaped by the consumer, because the consumer preferences who buys and adopts the product, defining fashion. In this context, neither designers nor businesses determine fashion, the real determining power is the customer. Therefore, in contemporary marketing strategies, brands adopt a consumer-oriented approach and try to accurately understand the needs and expectations of consumers and thus aim to create a loyal customer base. Neuroscientific tools become an important part of this process, helping brands meet customer expectations more accurately and efficiently (Öndoğan & Öndoğan, 2021:76).

Touchette and Lee conducted an experimental study with an EEG device to measure consumers' response to the attractiveness of clothes. Accordingly, while the subjects viewed the clothes, the data obtained from the left and right frontal regions of the brain were compared with their self-reported responses. Supporting Davidson's theory, the researchers found that there was a statistically significant difference in frontal asymmetry between attractive and unattractive clothing products. The findings of this study suggest that the frontal asymmetry score may be an alternative method for measuring consumers' unconscious responses to the attractiveness of clothing products (2017:3).

According to Neuromarketing (Marketing 4.0); when consumers make purchasing behavior decisions, they make decisions not only according to the rational part of the brain, that is the logical part of the brain, but also with the irrational, i.e. the emotional part. Neuromarketing is mainly concerned with this emotional, i.e. irrational, part of the brain (Yücel & Çubuk, 2014:223).

The fact that purchasing activities are shaped not only by needs but also by emotional ties forces marketing strategists to balance more rational and emotional factors. Accordingly, neuromarketing offers important guidance to strategists in balancing emotion and rationality in understanding consumer behavior (Bağçı, 2023:160). The insights that neuromarketing offers, especially in understanding emotional factors, are gaining increasing attention in the marketing world. Studies demonstrate that neuromarketing methods are used by global brands in different sectors and that these methods reinforce customer trust in competitive markets. The fashion industry also benefits from these methods, enabling brands to accurately analyze consumer emotional responses and develop effective marketing strategies. Therefore, the increase in publications on neuromarketing and the fashion design industry allows for more profound research at the intersection of these two fields, paving the ground for the future studies.

Suggestion

Making neuromarketing techniques more widespread in the fashion industry will assist brands gain a deeper understanding of consumer behavior and develop more targeted marketing strategies. The integration of neuromarketing methods will increase competitive advantages in the industry. With new technologies such as neural and biological data collection methods, fashion brands can better understand consumer perceptions and make informed decisions.

A great part of failure in brands arises from misjudgment of consumer expectations. Neuromarketing enables brands to improve their product design and marketing strategies by accurately predicting these expectations. In addition, brand image can be strengthened and customer loyalty can be increased with strategies to create emotional bonds.

Given the interest in sustainable fashion design, neuromarketing can help develop strategies for brands offering environmentally responsible pro-

ducts. Pricing strategies optimization can be done based on consumer perceptions of price thanks to neuromarketing, preventing losses due to overstocking.

Neuroscience tools can make significant contributions in the textile industry in various areas such as understanding consumer behavior, improving product design, offering personalized fashion, optimizing the store experience and health. The integration of technology and neuroscientific analysis will help the industry to produce more efficient, customer-oriented and innovative products and solutions. Finally, in-depth research on the knowledge and practices in the field of neuromarketing in the fashion sector and the creation of expert staff will enable professionals in the sector to implement these techniques effectively. By increasing the effective use of neuromarketing in the fashion industry, these recommendations will help brands develop more successful marketing strategies.

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Impact of Green Financing and Green Banking Practices on Banks' Environmental Performance[1] doi

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Abstract

The banking sector remains a cornerstone of the world economy, which includes India. However, the ongoing financial crisis has put pressure on banks worldwide to operate more efficiently, and implementing green banking practices is seen as the best course of action offering them a competitive advantage and improved performance. Hence, this study aims to provide insight into how the banking industry views the connection between GBP and banks' competitive advantage and performance. Data for this study is being gathered from 423 employees of Indian public banks, using a convenience sampling method. Using structural equation modelling, the empirical results show that green banking practices greatly improve banks' competitive advantage and performance. Furthermore, the connection between green banking practices and banks' performance is facilitated by competitive advantage. The implications of this work for banks and other institutions make it unique and important. To promote green banking practices and investigate opportunities for competitive advantage, the study's findings will be helpful to academics, bankers, banking institutions, government officials, and managers in India. Ultimately, this will improve the organizational performance of banks. As a result, this helps the nation's economy grow sustainably and remain stable.

Keywords: Green Banking, Banks Environmental, Performance, Competitive Advantage

JEL Codes: Q01, Q56, O13, G20, E60

Introduction

A country's financial system serves as a barometer for the overall health of its economy. Indian banks, widely distributed geographically and providing a range of functions, have been essential to the nation's socioeconomic growth (Afsar et al., 2020). Over sixty percent of households' savings are routed through the banking sector, which moreover furnishes over 90% of the nation's financing for business (Srivastava, 2016). Although the expansion of banks boosts economic growth, several Indian banks have closed branches recently to strengthen their already fragile financial position, which has been under strain for several years. Furthermore, today competition in every segment of the market is very stiff. Banks are no exception (Gupta and Barua, 2018). To compete in this highly competitive environment and enhance their overall performance, they must have some USP (Anning-Dorson et al., 2018). One factor that can be the panacea for banks is green banking practices (Olson, 2008). Therefore, it is essential to quickly address a crisis in the financial sector so that banks, which are the main source of credit, can resume their regular operations. An efficient way to address this crisis is to adopt a strategy that is unique and fits the current demands of the market. This unique strategy can be green banking practices (Rai et al., 2019).

Green banking is a set of practices and policies that banks and other financial institutions use to encourage people to do things that are good for the earth and are sustainable (Rehman et al., 2021). The objective of green funding is to defend the ecological ecosystem without sacrificing the quality of financial services (Sahoo and Nayak, 2007; Zhang et al., 2022).

Green banking can be defined as a bank examining a project's long-term viability before providing funding (Nanda and Bihari, 2011). Green banking is predicated on the notion that humanity must preserve the environment for it to support human habitation (Aubhi, 2016). A Dutch bank by the name of "The Triodos Bank" was the first to employ G-banking in 1980 (Yadav and Pathak, 2013). The "State of Florida" took the identical action in 2009 (Sharma and Choubey, 2022). This has motivated banks to launch green banking initiatives across the globe. Adopting and implementing green banking practices in their operations can give banks a competitive advantage.

According to Hertati, 2016, a competitive advantage is a benefit over rivals that can be attained by providing more consumer value at lower costs, greater customer advantages, or services that can provide cost for consumers (Porter, 1985). The capacity of an association to sustain a defensive stance against its rivals is another definition of competitive advantage (Li et al., 2006). Expense, value, provision, reliability, production improvement, and time to the marketplace are markers of each. Therefore, green banking practices allow banks to do something different from

their competitors, increasing their image, customer loyalty satisfaction, and profit (Ali et al., 2021).

Additionally, competitive strength also helps businesses to improve their performance. Performance can be defined as the extent to which a company or organization—a collection of individuals assigned roles and responsibilities—achieves its objectives by adjusting to and thriving in a continuously changing environment. It speaks to how well a firm achieves its goals (Edi Suandi et al., 2022). Furthermore, different firms use various methodologies to evaluate their performance; for example, some evaluate from a financial perspective, while others do so from a non-financial one. How well a corporation trades value with its members to make optimum use of its resources is the primary determinant of its performance (Chaudhary and Akouri, 2018).

A firm's success is mostly controlled by its internal qualities, permitting the source-created view theory (Youssef et al. 2018). The firm's resources and competencies are among these attributes. As a result, most Indian banks are increasingly concentrating on their performance. So, adopting green banking practices creates differentiation opportunities, reduces cost, and ensures high profit thus providing them competitive strength and improved performance. Even though many studies have shown GBP acceptance, success, environmental sustainability, and trends and awareness, some studies have looked at how GBP affects the Bank's performance in countries like Bangladesh, Nepal, India, Sri Lanka, and Pakistan (Zheng et al., 2021; Risal et al., 2018; Vidyakala, 2020; Shaumya and Arulrajah, 2017; Rehman et al., 2021). However, there aren't many studies that look at the impacts of GBP on banks' performance in India. Green banking practices and green financing are increasingly seen as crucial tools for promoting environmental sustainability in the financial sector. After an extensive literature review, it has been found that most of the research on green banking has focussed on its needs, benefits, trends, and challenges. Furthermore, most of the past studies have focussed on the association between green banking practices and environmental performance by taking green financing as a mediating variable. This study fills the identified gap by linking the association between green banking practices and banks' performance by taking competitive advantage as a mediating variable.

Literature Review And Hypothesis Development

Green Banking

The use of economic essential services to protect the situation by emphasizing environmental and socio-economic issues is known as "green banking." (Choubey and Sharma, 2022). The term "green" in

"green banking" mainly describes how well banks function and how responsible they are for the environment in their business dealings (Munim et al., 2014). The concept of "green banking" was introduced in 1980 by the Dutch bank Triodos Bank (Pathak and Yadav, 2013). It created a "Green Fund" for ecological projects, which became a template for banks investigating green banking practices in 1990 (Kumar et al., 2015). As a result, this is a new concept in the banking sector, to create environmentally friendly and sustainable practices to counteract the external challenges that banks face. GB entails putting into practice eco-friendly practices and reducing both internal and external CO2 emissions as a result (Hashim et al., 2020). The GB agenda places a strong emphasis on corporate social responsibility (CSR). For this reason, it is frequently referred to as ethical banking (Park and Kim, 2020). It is a kind of banking that helps reduce both internal and external carbon footprints by operating in a certain location and way to manage global warming.

Organizational Performance

Employee work satisfaction is a critical component of organizational performance and output, and as such, it can determine the future success of a business or organization. The effectiveness of an organization's implementation of strategies to achieve institutional purposes and goals is known as organizational performance (Randeree & Al Youha, 2009). The effectiveness of an enterprise, organization, or commercial entity is heavily impacted by the effectiveness of the people and resources that work for it (Babelova, Z. G., 2020). An organization must work tirelessly to improve its managerial procedures, as failing to do so will ultimately result in its demise. One type of managerial tool for promoting organizational success is employee participation in decision-making and other key activities. Participation of workers in organizational decision-making affects performance in both positive and negative ways (Tamunomiebi et al., 2020).

Competitive Advantage

Although managers may find it difficult to implement digital business strategies, companies need to leverage these tools and solutions to gain a competitive advantage and boost financial performance (Chae et al., 2018). In addition to creating a corporate culture that embraces and encourages the use of technology, managers must be knowledgeable about the digital tools and solutions that are now available. Every institution strives to outperform and outgrow its rivals to remain competitive. Developing competitive capacities in the modern world has emerged as one of the main issues facing many nations on the global stage. Various definitions and interpretations of the term "competitive advantage" will be

discussed here. Any difference in a company's attributes or characteristics that helps it offer superior customer service to rivals is known as a competitive advantage. It also refers to the extra appeal that the business provides from the standpoint of its clients in comparison to its rivals (Hosseini & Shams, 2014). Porter characterized a competitive advantage as the values that a business provides to its clients in a way that outweighs the costs to the clients. Considering the criteria along with other definitions, it can be shown that a competitive advantage demonstrates the direct correlation between a customer's desired values and the values provided.

Green Banking Practices and Organizational Performance

Effective green banking rules and standards must undoubtedly be created by developing workable plans for executing green economics and directing governing bodies. With an emphasis on ecological, community, and supremacy factors, Bukhari et al. (2020) developed a set of best procedures for green finance. This paradigm, which has its roots in human ecology, emphasizes how closely related environmental sustainability factors are to one another. The adoption of green banking can be accomplished either sequentially or parallelly, the authors found, depending on internal and external environmental conditions. Green funding methods, assumption strategies, and the need to put green finance ideas into a method were all studied by Mir and Bhat (2022). The tasks and roles of banks in progressing environmental sustainability and accomplishing the UN SDGs were also examined by the writers. Their results clearly showed how important financial institutions—banks in particular—are to the growth of low-carbon financial systems. Several research on green finance looks at how important it is to build stronger, more resilient financial institutions that support sustainability. Using data from 2011 to 2021, Chen et al. (2022) investigated the impact of sustainable supporting motivations on banks. The authors discovered that while decreasing default risk, a rise in green exposure had a favourable impact on the intermediation spread. Although it is impossible to overestimate the significance of sustainable banking in reaching carbon a neutral stance, Sarma and Roy (2021) pointed out the paucity of studies on the subject. The necessity to make ethical investments drives SRI, according to Revelli & Viviani (2015). According to Korzeb and Samaniego-Medina (2019), the theory also explains why the practice of green banking emphasizes investing in social responsibility as a way to boost sustainability performance and create money for managers and politicians. When accepting a loan, banks that engage in green banking must be socially responsible and take into account the project's intended outcome or the long- and short-term environmental savings. Stakeholder

demand—which includes investors who have looked beyond variables like low risk and return on investment—is the reason for this.

H1: Banks' green practices are positively associated with banks' organizational performance.

Green Banking Practices And Competitive Advantage

According to M.-S. Kim and Stepchenkova (2020), the leader's green banking practices promote green advocacy in the workgroup, which may enhance the leader's attention to the environment. The authors found that the magnifying impacts of the dynamic dynamics at play put social pressure on individuals to act in an environmentally responsible manner. Furthermore, employees' need for acknowledgment and appreciation from supervisors and peers may serve as important sources of motivation (Brick, Sherman, & Kim, 2017). Empirical studies demonstrate that positive peer interactions and the impression of support foster "eco-helping," or environmentally conscious behavior, in the workplace (Paillé, Valéau, & Renwick, 2020). In terms of competitive strategy and organizational performance, it's a complex and unsolved problem (Ghaith, 2020; Tavitiyaman, Qu, & Zhang, 2011). The profitability of a corporation is a function of the industrial structure, according to studies on the behavior of an industry by (Bain, 1956) and (Mason, 1939), who offer a framework for competitive strategies and organizational performance. The primary determinants of an organization's performance within a particular industry, rather than the organization itself (Barney, 1986). A company's core competencies are especially potent and difficult to replicate since they are linked to the way its value chain's connections are handled, claim Johnson, Scholes, and Whittington (2009). The survival of a company is the only reliable measure of organizational performance, according to Drucker (1954). A company can try to be the lowest-cost producer or differentiate itself to maximize success, according to Porter (1985). According to the theory guiding the corpus of studies on the connection between strategy and performance, a strategy that is specially designed for a company's internal and external environment will almost certainly result in higher performance (Kubickova & Smith, 2019).

H2: Green banking practices are positively associated with sources of competitive advantage.

Competitive Advantage and Organisational Performance

The ability of an organization to establish a plausible edge over its rivals is known as competitive advantage (Li et al., 2006). Although the organizational concert is the worth obtained from the commercialization of competitive benefit, Newbert (2008) emphasized that a competitive advantage can be defined as the financial worth produced by the application of innovative business strategy. According to Stalk et al. (1992), competition nowadays is viewed as a "war of movement" that changes in foreseeing and acting swiftly in response to shifting market demands. Competitive advantage leads to creating superior competencies thus resulting in higher market share and profitability performance (Barney, 1991; Coyne, 1986; Day and Wensley, 1988; Prahalad and Hamel, 1990). One significant contextual aspect influencing how well an organization performs is competition (Lee & Yang, 2011). When banks are in a competitive market, they perform best when they offer low service prices (Neely, 2005). The competition impacts the overall success of the company (Hussain & Hoque, 2002). Moreover, Mia & Winata (2014) discovered a favorable correlation between financial performance and competitiveness. Numerous empirical research has demonstrated the beneficial relationships between organizational performance and competitive advantages. The implementation of a sustainable business strategy can yield differentiation competitive advantages that can lead to increased customer satisfaction, a higher rate of repeat business, and the attraction of new client segments that are environmentally conscious. By making use of this competitive advantage, businesses can fortify their business communal accountability in the goal marketplaces, create a distinctive public image, boost their reputation, and increase customer value thus enhancing their organizational performance(Wright, M et al, 2005). Previous empirical research suggests that a firm's performance may increase as a result of differentiation in its competitive advantages (Leonidou et al, 2017). Additionally, because proactive environmental tactics provide a company with a competitive edge over rivals, a company's financial performance may be enhanced by increased rates of repeat business and possible sales from previously untapped markets of environmentally conscious consumers. According to Wang et al. (2018) and Li et al.(2017), competitive advantage positively affects the amount of sales, market position, and return on investment as indicators of a company's performance. According to Bharadwaj et al., Miller, Rosiana, and Supranoto, a business entity that pays attention to the market will get a competitive edge over its competitors thus creating a positive impact on their organizational performance. Therefore, the hypothesis is formulated as follows

H3: There is a positive relationship between competitive advantage and organizational performance.

Competitive Advantage as a Mediator

Based on what was said about the association between GBP, competitive advantage and organizational performance, it is clear that GBP and competitive advantage improve organizational performance. However, there haven't been many studies

that look at the link between GBP, competitive advantage and organizational performing competitive advantage as a "mediating" inconsistent. So, the current study tries to fill this gap by looking at how these factors relate to each other in the Indian banking sector. According to scholars like Teece (2007), businesses would be encouraged to develop their competencies to achieve long-term organizational performance through innovation such as green banking practices. A successful innovation may make it more difficult for rivals to produce knockoff goods (Wingwon, 2012). As a result, innovation has the potential to impact competitive advantage, which will subsequently boost organizational performance (Wu et al, 2007). Additionally, Sakchutchawan et al. (2011) endorse it. According to research findings, an organization's performance will be impacted by innovation and its ability to create a competitive edge. In this research, competitive advantage will be used as a moderator to study the association between green banking practices and corporate performance. Therefore, the hypothesis is formulated as follows:

H4: Competitive advantage mediates between green banking practices and the organizational performance of banks.

Model of the Study

Figure 1 presents the Conceptual Framework of the study which was compiled by the authors.

Research Methodology

Sample Collection

A total of 423 employees working in various public sector banks in Uttarakhand, India participated in an online survey, with the assurance of confidentiality for their responses. Convenience sampling was chosen for the current study. Reminder emails were sent regularly to increase response rates, by the guidelines proposed by Dillman et al. (2014). Out of the total responses received, 233 (55%) male and 190 (45%) female were complete and valid. The demographic characteristics of defendants are presented in Table 1.
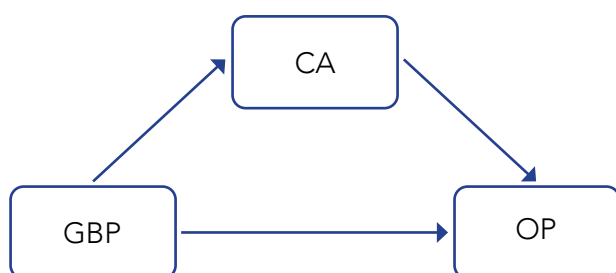
Figure 1. Conceptual Framework

Structures Used

A structured questionnaire was used to collect data on the study's variables. The adoption of instruments

is influenced by how the condition of Indian banks is as suggested by members (Jain and Jeppesen, 2013).GBP was assessed using 12-item questionnaires developed by Rehman et.al (2021), and Shaumya and Arulrajah (2017). This tool method defendants' perceptions of various facts of GBP in their banking institutions. Organizational performance (OP) was assessed using 29-item questionnaires developed by Carstens and Kock (2017). Competitive Advantage (CA) was assessed using 15-item questionnaires explained by Newbert (2008)

Analysis and Results

The study targeted staff members between the ages of 25 and 60 working in PSB across India. The gender distribution of the respondents was 55% male and 45% female. A described profile of the participants is provided in Table 1. The detailed profile of the respondents is given in Table 1.

Table 1. Demographic Profile of Respondent

Demography	Particular	Frequency
Gender	Male	233
	Female	190
Age	25-39 years	162
	40-54 years	144
	55-65 years	89
	66 years and above	28
Educational Qualification	Undergraduate	147
	Postgraduate	189
	Doctorate	52
	Others	35
Job position	Assistant general manager	96
	Senior Manager	85
	Manager	126
	Officer	116

This study utilized IBM SPSS version 22.0 for Exploratory Factor Analysis (EFA) and AMOS version 22.0 for Confirmatory Factor Analysis (CFA) to conduct the data analysis. The construct validity of this study is measured using fitness indices as illustrated in Table 2, where Chi-sq/df is 1.923 (Between 1 and 3), CFI IS 0.988>0.95 and RMSEA is 0.021< 0.06 demonstrating that there are no problems with construct validity.

Table 2. Model Fit

	Values	Threshold	Interpretation
χ2	1758.248	---	---
Df	1481	---	---
χ2/df	1.923	Between 1 and 3	Excellent
CFI	0.988	>0.95	Excellent
SRMR	0.032	<0.08	Excellent
RMSEA	0.021	<0.06	Excellent
PClose	1.000	>0.05	Excellent

Convergzalidity was assessed using the Composite Reliability (CR) and Average Variance Extracted (AVE). As depicted in Table 3, CR and AVE values are exceeded the recommended threshold of 0.70 and 0.50 respectively, indicating that the research confirms to convergent validity.

Table 3. Model Validity Measures

	CR	AVE	MSV	MaxR(H)	OP	CA	GBP
OP	0.984	0.679	0.282	0.984	0.824		
CA	0.967	0.662	0.246	0.967	0.479***	0.814	
GBP	0.963	0.682	0.282	0.963	0.531***	0.496***	0.826

Hypothesis Analysis

The hypotheses were tested using standardized regression weights as shown in Table 4, whereas Fig 2 represents SEM path analysis for the current research.

Table 4. Path analysis Table

	Estimate	S.E.	C.R.	P	Label
CA <--- GBP	.495	.054	9.833	***	
OP <--- CA	.428	.051	9.146	***	
OP <--- GBP	.292	.049	6.053	***	

Note: ***p < 0.001.

Hypothesis 1 assumed a significant relation between GBP and OP in PCBs. The beta value is 0.292 (t = 6.053, p-value < 0.001) calibrates the important association between GBP and OP, confirming Hypothesis 1. Similarly, Hypothesis 2 (relation between GBP and CA) and Hypothesis 3 (relation between OP and CA) were vindicated with beta values 0.495 (t = 9.833, p-value < 0.001) and 0.428 (t= 9.146, p-value < 0.001).

Finally, Hypothesis 4, which posited the mediating role of CA in the relation between GBP and OP was tested using Hayes (1986) approach. Table 5 shows the result obtained from AMOS 22.0 using the 95-percentile bootstrap method. The presence of a mediator is confirmed as the indirect effect is significant (relation between GBP and OP through CA (0.19***). The result further confirms CA as a partial mediator in the relationship between GBP and OP as the direct effect is also significant (0.36***).

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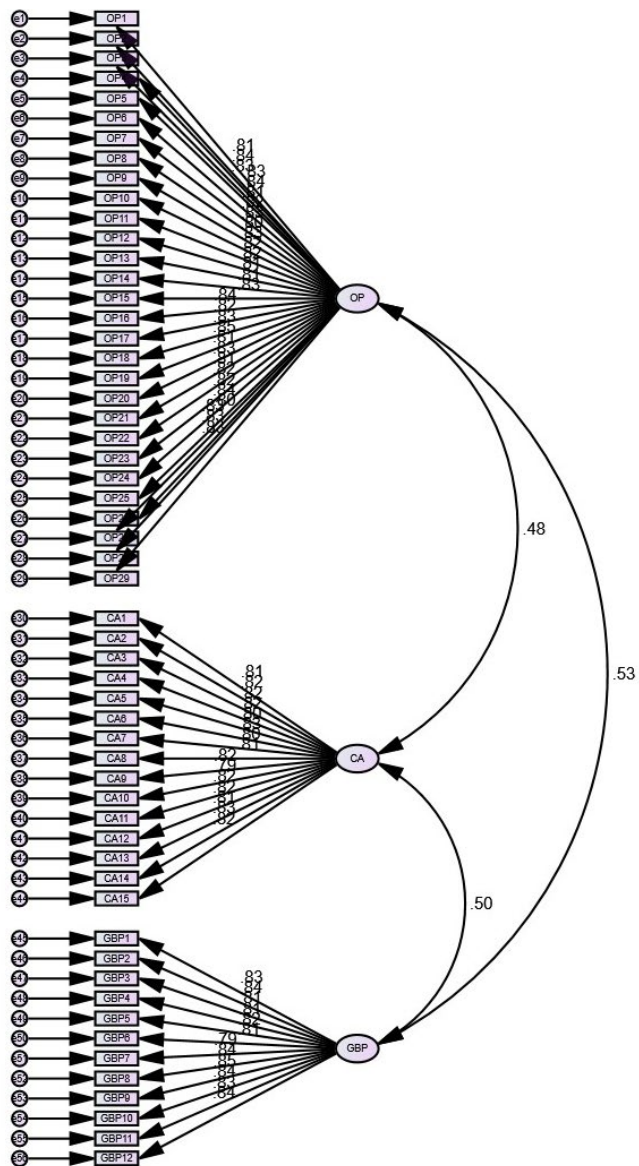
Figure 2. Confirmatory Factor Analysis
Source: SPSS AMOS)

Table 6. Mediating Hypothesis Table

Hypot-hesis	Direct Effect	Indirect Effect	Total Effect	Conclusions
GBP ➔ CA ➔ OP	0.36	0.19	.55	H4 accepted (Partial Mediation)

Note ***p<0.01; *p<0.05;¥p> 0.05.
GBP➔CA➔OP

Discussion

The study was carried out to find out how green banking in Indian private commercial banks boosts the competitive advantages for them leading to improved organizational performance. The data collec-

ted through organized surveys show that the entire study model was accepted and thought to be good. The goals of this study were to explore how strong the link was between GBP and banks' performance and to find out the role of competitive advantage in explaining this link. A study that used AMOS found that GBP is linked to CA and banks' performance in a good way. It was also found that CA has a big effect on banks' performance. Using Baron and Kenny's (1986) method for mediation analysis, it was found that the link between GBP and their performance is kept alive by CA. The first hypothesis shows that PCBs have a strong link between GBP and their performance. The significant link between GBP and their performance is measured by the beta value of 0.292 (t = 6.053, p-value 0.001), which proves Hypothesis 1. The results of Zheng et al. (2021), Rehman et al. (2021), Rishal and Joshi (2018), and Shaumya and Arulrajah (2017) all show that GBP has a good effect on banks' performance. Banks are a key part of making the change to a low-carbon economy easier. The study findings confirm the results of Kumar et al., 2024 that Indian Banks are actively building human skills through a variety of green activities, such as teaching its staff, and a green award system, which will improve their performance outcomes. The study findings also reveal that environmentally conscious employees will fund renewable sectors that are closely linked with the UN Sustainable Development Goals, which will elevate their brand image and consequently their performance (Opoku et al., 2024; Prokopenko et al., 2023). Responsible banking at Indian banks means that environmental and social issues are considered in the Bank's total risk analysis. To do this, the Bank made an Environmental and Social Organization Approach to evaluate the environmental and community hazards of loans and make sure that these risks are within a set of international and national standards. According to the Indus Land Bank ESG report for 2021-22, there will be a 54% decrease in paper emissions compared to FY 2019-20, 53,440 kg of e-waste will be recycled through approved suppliers, and 5,252 MW of electricity will be saved through several efforts to save energy. So, all these green banking methods help finance green areas and help the environment.

Hypothesis 2 said that there was a strong link between GBP and CA. The strong link between GBP and CA is measured by the beta value of 0.495 (t=9.833, p-values 0.001). Vidyakala (2018), Raihan (2018), and Miah et al. (2018) all say that their green practices create a good impact on the CA, which backs up Hypothesis 2. This study is consistent with previous studies (Malik et al., 2023, Tu and Wu, 2021) as all confirm that green strategies thrive in innovation and customer engagement driving firms' competitiveness. Mustafa et al., 2023 find that green human resources management practices like green recruitment and training significantly influence banks' com-

petitive strength, aligning with this study's results. González-Viralta et al., 2023 study indicates that financial institutions are working on several projects and making their green loans more diverse to increase their exposure to environmentally conscious customers and hence gain a competitive edge. Hence, financial institutions are already well on their way to attracting customers by funding green projects and programs like the WASH program, electric cars, and green buildings. All these things influence how well banks take care of their customers which will surely enhance their performance. So, green banking practices affect the organization's success by creating a positive impact on its market positioning.

Hypothesis 3 said that there was a strong link between OP and CA. The significant link between OP and CA is measured by the beta value of 0.428 (t = 9.146, p-value 0.001), which proves Hypothesis 3. So, the study backs up the results of Chen et al. and Zhang et al. by showing that CA is a good indicator of their performance process. Asiaei et al. (2023) show that businesses adopting green strategies influence their financial performance and competitiveness. Barakat et al., 2023 study also indicates that green training improves resource use, saves cost, and enhances operational efficiency. All these factors boost a firm competitive advantage that directly impacts business performance. Policymakers and financial institutions are dedicated to making the world a better place by making its activities, systems, and processes as green as possible, which directly impacts competitiveness and performance (Xu et al., 2023). Ali et al., 2022 study also finds that the banking sector motivates retail banking customers to switch to electronic accounts to save paper, to use online banking services to cut down on emissions caused by travel, and to have a big office. By taking these steps, financial institutions are stepping up their game in the sustainability drive that gives them a competitive advantage and will consequently lead to improved performance.

Hypothesis 4 measures the importance of GBP on performance by taking CA as a mediating factor. The significant link between GBP and their performance when CA acts as a mediator is measured by the beta value (path ab=0.19***), which proves Hypothesis 4. The study shows that the condition for partial mediation is met and hence confirms Hypothesis 4. This backs up what Zhang et al., 2022; Waqas et al., 2021 found. Khan et al., 2020 find that firms are getting rid of their fossil fuel interests and putting their money into green energy and energy-efficient ways to meet their energy needs. This gives a positive signal to their stakeholders that today's banks value customer preferences. This will automatically increase their customer base thus placing them better than their rivals and enhancing their performance. Zhu and Yang, 2021 find that banks are holding classes for their employees to teach them how to save ener-

gy and spread the word about the importance and need of incorporating sustainability into their operations. All these activities will improve banks' performance as they will be operating much better than their rivals in a highly competitive market. So, CA is a bridge between the GBP and their performance. So, we can say that banks' performance can only be improved if GBP and CA are brought together. If banks take green banking seriously, it will help businesses to become more competitive and will augment their performance (Biswas, 2011). Green banking can be a very important part of helping a country grow and progress. So, a bank must use real facilities, IT, and responsible loans to make banking processes more efficient and effective.

Conclusion, Implication and Future Scope

This study has explored the considerable relations between GB, CA, and OP in the finance region. 423 banking employees were contacted to collect the data. Data was analysed using IBM SPSS AMOS version 22.0. The research findings highlight that the GBP has a considerable impact on Indian banks' competitive advantage as well as performance. The study findings provide concrete ways in which financial institutions can support sustainability objectives that improve their goodwill and performance. This might entail conducting green training, solar panel installation, carpooling by staff members, or better waste management. All these initiatives directly and positively influence performance. The findings of the present work have several implications for banks as well as other institutions. The findings of the study will be beneficial for academicians, bankers, banking institutions, government officials, and managers in India to promote green banking and avenues for competitive advantage to augment the bank's organizational performance and, consequently, the sustainable growth and economic stability of the country. This study will encourage Indian banks that wish to innovate but are held back by worries that the innovation will not be embraced enthusiastically by the market and won't affect bank performance. Hence, banks must adopt and promote green products such as green loans, green bonds, or green savings accounts. The study encourages banks to continually conduct assessments of their performance so that they can get competitive strength. Similarly, stakeholders should engage in the development and implementation of green banking practices for sustained performance. Despite its significant contribution, the study faces several shortcomings. Since the study was conducted in the Uttarakhand region, future studies can evaluate the study variables in different states, countries and sectors. Future studies can also take other banks than public sector banks to test the relationship between variables. Finally, fu-

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ture authors can research the long-term impacts of green financing, looking into new metrics to assess environmental performance, or looking into how technology can improve green banking practices.

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Analysis of the Gender Perceptions of Generations X, Y, and Z through Advertisements[1] doi

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Abstract

Gender perception, which is greatly affected by the socio-cultural characteristics of societies, varies from society to society. Gender perception is greatly influenced by the media's representations of men and women. Initiatives such as the Unstereotype Alliance Platform have increased the number of advertisements that seek to change gender perceptions. In this context, the problem of the study is to reveal the gender perception of generations X, Y and Z through 3 advertisements published in Turkey. Phenomenological design and maximum variation sampling were preferred in this study, which is an example of qualitative research. Within the scope of the study, advertisements of 3 brands that are members of the Unstereotype Alliance Platform were selected, and structured in-depth interview questions were prepared. The selected commercials were shown to 24 people from generations X, Y, and Z. As a result of the study, most of the X, Y, and Z generations expressed a positive opinion about men and women doing housework together and they found the message given in the selected advertisements positive. In addition, participants requested advertisers to increase the number of advertisements showing men doing housework. It was emphasized that normalizing men's active role in housework could be a positive step towards gender equality.

Keywords: Gender, Stereotypes, Gender Roles, XYZ Generation, Advertisement.

JEL Codes: D83, L82, M37, Z10

[1]This study was prepared based on the doctoral thesis titled "Advertising Campaigns Aiming to Transform Gender Stereotypes: Perspectives of Generations" prepared at Uşak University.

Özlem Işıklar / Özlem Duğan

Introduction

Gender is a concept that describes the different attributes between women, men, girls, and boys and the social and cultural roles of these groups. While the patriarchal structure was more pronounced in the 1970s, since the 2000s, women's right to exist in every field has been emphasized, but the desired level of equality has not been achieved due to the persistence of the patriarchal mentality (Çık, 2017 & www.unicef.org, 2017). This situation leads to negative relationship outcomes for both men and women. Gender roles are also reflected in television advertisements and advertisements frequently use gender roles and stereotypes to reach large audiences and reinforce these stereotypes. The number of advertisements trying to change gender stereotypes has increased due to the influence of initiatives such as the "Unstereotype Alliance Platform" (Şener & Öztürk, 2022). It has been observed that studies examining the perspectives of viewers from different generations in advertisements prepared with this new approach are limited. The aim of this study is to examine the attitudes of generations X, Y, and Z in Turkey towards the division of domestic labor, to determine their perspectives in the context of gender, and to reveal their attitudes toward advertising campaigns that aim to transform gender stereotypes. Within the scope of the study, three advertisements from various product categories were selected and in-depth interviews were conducted with 24 participants belonging to generations X, Y, and Z. The results of this research are intended to provide guidance for advertisers that consider the power of advertisements to change society.

Literature Review

Gender, Stereotypes and Generation X, Y, and Z

Gender roles are social and behavioral norms accepted in society for individuals of a particular gender. They include traditional responsibilities assigned to women, men, girls and boys. These roles are shaped by local and global factors; including resource access, household structure, the global economy and ecological conditions (unicef.org, 2017). Zastrow & Kirst-Ashman (2016: 620-622) state that gender identity is an internal psychological concept and includes elements such as behavior and personality. Mead emphasizes that gender roles are highly variable in terms of physical environment, economic and political systems (Bates, 2013: 58; Schaefer, 2013: 276-277).

Gündüz-Kalan (2010: 79) states that women are often portrayed as caring, compassionate and maternal, while men are portrayed as strong, independent and less compassionate, and that these expressions are examples of gender stereotypes. Although it varies from one society to another, it is emphasized that

in many societies women are generally engaged in domestic work, while men undertake tasks outside the home (Marshall, 1999: 101).

Ann Oakley (1972), one of the pioneers of gender in social sciences, states that gender encompasses biological sex differences as well as the roles of masculinity and femininity defined by society. Oakley explains the interactions between men and women largely on the basis of biological differences. Simone de Beauvoir's "Le Deuxième Sexe" is a turning point in feminist literature. De Beauvoir analyzes how women have been constructed as the "other" throughout history and distinguishes between biological sex and gender. According to her, being a woman is not an innate characteristic, but a process of historical and social construction. Her most famous quote "One is not born a woman, one becomes a woman" summarizes this idea (Beauvoir, 2019: 26). Judith Butler, in her book "Gender Trouble: Feminism and the Subversion of Identity" argues that gender is performative. According to her, gender is an identity that people create by constantly repeating certain behaviors. Butler argues that gender is not fixed and unchangeable, but is constantly reproduced according to social and cultural conditions. These ideas contributed to the development of queer theory (Butler, 2014: 16-17). Sandra Bem, on the other hand, has made a significant contribution to the field of psychology and gender studies with her work on gender. One of Bem's most well-known theories is the gender schema theory she developed in the 1970s. This theory argues that people learn and internalize gender roles according to social and cultural norms from an early age. Bem examines how gender roles shape individuals' perceptions and the role they play in adapting to social expectations (Bem, 1981: 354). According to Eagly and Wood (2016: 459), gender role beliefs arise from the observation of male and female behavior and lead to the inference that the sexes have certain characteristics that are appropriate for gender-specific roles. These characteristics are reflected in widely shared beliefs or gender stereotypes. Because these roles seem to reflect the inherent characteristics of the sexes, they are perceived as natural and inevitable.

Many studies have been conducted in the academic field to reveal the gender perspectives of women and men. In a study, it was determined that women's gender perception was higher than men's among participants at a state university (Alabaş et al., 2019). In gender stereotypes, being married or single can also be a determinant in gender stereotypes. Another study revealed that the gender perception of early married women is biologically and socially shaped (Tuna-Uysal et al., 2019). In a study conducted with men who stayed at home during the Covid-19 pandemic, it was stated that fathers who tried to participate equally were sensitive to gender equality, but experienced conflicts related to the-

ir father and masculinity roles (Kaya & Yaşar, 2021). In a similar study, it was revealed that women had a more egalitarian and positive gender perception than men, married and single women had similar attitudes, but single women had a more positive perception (Yılmaz et al., 2022). Another study revealed that married women exhibit more traditional gender attitudes as they get older (Altun, 2019). Intergenerational differences can also be effective in gender stereotypes. In a study conducted with high school students (Generation Y), it was found that some students were under the influence of traditional values on traditional gender role issues (Budak & Küçükşen, 2018). In a similar study, the attitudes of Generations X, Y and Z on gender equality were examined and it was found that Generation X had more traditional views than other generations (Akgül, 2022). In another study It was concluded that married women between the ages of 25-40 (Generation Y) have more egalitarian social attitudes than women between the ages of 40-55 (Generation X) (Paçacıoğlu, 2018). The views of individuals from different generations on gender in advertisements were examined and it was determined that Generation Y had a more critical and egalitarian perspective than other generations (Öztürk, 2020).

Gender and Advertising

The roles of men and women in society are also reflected in advertisements. Advertisements reinforce gender stereotypes by repeating coded images. Advertisements act in accordance with gender roles in the selection of characters (Gündüz-Kalan, 2010: 81; Meral, 2008: 20). While reproducing male and female roles, advertisements also normalize inequalities between men and women through gender stories (Nas, 2015: 13). Sancar (2009: 175) and Özdemir (2010: 103-104) state that women usually take part in advertisements for products related to housework, while men are depicted in scenes involving struggle and heroism outside the home. Gündüz-Kalan (2010: 79) states that women are often portrayed as caring, compassionate and maternal, while men are portrayed as strong, independent and less compassionate. It has been found that women in traditional roles in television advertisements are generally portrayed as good wives, mothers and housewives, women in decorative roles are presented as sexual objects, and even strong women are shown as lonely and unhappy (Aydın & Aslaner, 2015). In a study analyzing 489 television advertisements that won awards in the Effie Competition in the 2007-2018 period, it was determined that the main characters were mostly male and 89% of the voiceovers were performed by men. Women, on the other hand, were shown in the home environment and very rarely in the work environment (Şener & Öztürk, 2018). In a study conducted by the same academics, the rate of female voiceover was

found to be 38%, the rate of female main character was found to be 43%, and it was determined that the rate of female main character increased by around 40% in bank and finance sector advertisements (Şener & Öztürk, 2022). In an analysis of Ikea's advertisements broadcast in Sweden and Turkey, it was determined that in Sweden the female figure was shown as a prominent and prominent character, while in Turkey she was depicted as an auxiliary and obscure character (Kaya, 2017). In the March 8 International Women's Day advertisements, it was observed that women were depicted by going beyond traditional gender roles (Çilingir, 2019). Beko and Dove advertisements attracted attention with themes emphasizing gender equality (Çiftçi & Serçelik, 2021). In a study analyzing jewelry advertisements, it was found that the happiness of owning the product was shaped by gender norms and stereotypes (Terek Ünal & Kalan, 2022). It has been determined that male and female roles in television advertisements are shaped according to gender stereotypes (Yalman & Güdekli, 2018; Hülür & Kalafat Çat, 2018; Matthes et al., 2016). Studies conducted in men's magazines at different times have revealed that men are associated with concepts such as charismatic, stylish, luxurious, polite, confident, arrogant, narcissistic (Zengin, 2019; Kılınç, 2015; Hacısoftaoğlu & Elmas, 2015).

Unlike Turkey, academic studies revealing gender stereotypes in many advertisements have been conducted abroad. In a study examining 311 advertisements on Youtube, it was determined that gender stereotypes in advertisements were generally based on physical characteristics (Roth-Cohen et al., 2023). The study on the portrayal of gender roles in television advertisements in Asian, American and European countries clearly shows that gender stereotypes in TV advertisements can be found all over the world, regardless of a particular gender equality status in a particular country (Matthes et al., 2016: 314). In a study on the representation of gender in South African television advertisements, it was found that men are represented in advertisements as dominant in public work spaces and in positions of social authority, while women are represented as subordinate and subordinate in private-domestic spaces, in positions of social subordination, and this subordination implies their sexualization (Luyt, 2011: 356). In the study conducted to examine gender images and the formation of stereotypes in modern advertising practice, a sample analysis of magazine advertisements published in Russian language in magazines of different countries was carried out, and it was found that men in advertisements are portrayed as successful businessmen, politicians, artists and art people who pay attention to their appearance (Naisbayeva et al., 2018: 118). In the study examining advertisements published in Ukraine, it was found that women were depicted in stereotypical roles such as sex objects or housewives and limited to traditional gender roles,

while men were shown in more active and successful roles (Ostapchuk et al., 2024). Television advertisements in Brazil, Canada, China, Germany, South Korea, Thailand and the United States were analyzed, and it was found that men were featured in visual and auditory roles, while women were depicted in stereotypical ways (Paek et al., 2010: 192). In Ukraine, 200 advertisements broadcast on television channels were analyzed, and as a result of the research, it was determined that women were mostly portrayed as housewives, nurses, protectors, and maids in advertisements (Kitsa & Mudra, 2020: 381). In a study investigating the representation of women in advertising in Brazil, it was found that women of color, fat women and women over 40 were underrepresented in advertising (Shinoda et al., 2020: 629). An analysis of advertisements aired on Belgian television in 2002 and 2003 and in 2009 and 2010 found that there was little change in gender role portrayals between these years and that gender stereotypes in advertising persisted despite social and regulatory changes (Verhellen et al., 2014: 170). An analysis of financial advertisements published in The Economist Magazine over the last 70 years showed that 84% of the advertisements featured a man as the central figure, while women were often portrayed in subordinate roles and with limited knowledge of financial products (Unda & Niessen-Ruenzi, 2024).

Although gender role stereotyping in advertisements continues, it is stated that there has been a change in this issue over the years (Eisend et al., 2019). It is possible to state that there has been a slight improvement in this regard. The ads that won awards at the Crystal Apple Advertising Creativity Competition were analyzed and it was determined that they mostly reflect traditional gender roles, but there are some progressive roles (Sanay & Şener, 2021). In a study conducted on 8 advertisements shot between 2020 and 2023, it was determined that the advertisements broke down the social assumptions on the roles of men and women and treated the man as an individual who takes care of his child and home (Doğan & Kahraman, 2023). In a similar study, it was determined that there have been positive developments towards women's roles in advertisements, but female role stereotypes are still present and various roles with family roles have emerged in male depictions (Tsichla, 2020: 28). In the study on advertisements, it was determined that consumers reacted positively to the "Biscolata Man" advertisement and especially women preferred this image to the portrayal of the female body for sexual attraction (Ergin et al., 2018). In the study examining the gender stereotypes of award-winning digital video ads, it was found that women and men were portrayed equally in non-stereotypical activities and roles. However, the study reveals that central figures are more likely to be male than female, indicating a gender difference in terms of the identification of main roles (Aramendia-Muneta et al., 2019: 403).

Unstereotype Alliance Platform

In 2017, Unilever and UN Women (United Nations Entity for Gender Equality and the Empowerment of Women) announced their cooperation and announced that they would work together to combat sexist stereotypes. Within the scope of this project, it was decided to work towards eliminating sexist judgments and representations in advertisements and media. Again at the Cannes Lions International Festival of Creativity in 2017, important organizations such as UN Women and the World Federation of Advertisers (WFA) announced the formation of the Unstereotype Alliance Platform. The platform was established to continue its activities as an idea and action platform aiming to create a more egalitarian and just world by supporting positive gender roles in media and advertising content (unstereotypealliance.org). The Unstereotype Alliance, which includes 12 countries and a total of 240 organizations, including Turkey as of 2019, is one of the largest global initiatives. The Unstereotype Alliance Turkey platform is the second national platform in the world. Major advertising professional organizations established in Turkey, particularly the Advertisers Association, and major advertisers operating in Turkey support the Unstereotype Alliance Platform. The lack of preference for women as an external voice in advertising, age discrimination, discrimination based on body size, men and women being stuck in traditional roles, and the existence of product categories where women are still underrepresented are among the issues that platform members emphasize (rvd.org.tr).

Parmelee and Codd (2023) draw attention to some issues in the "introduction" of the report "Women in Business-2023 Global Outlook" published by Deloitte. According to this report, housework often remains a burden on women and women often feel that they have to prioritize their partner's career. Although the majority of respondents work full-time, it is women who undertake the majority of household chores, with only a small proportion of them indicating that this responsibility lies with their partners. A significant proportion of women with lower incomes than their husbands feel that they should put their husbands' careers ahead of their own. In addition, it is observed that women view flexible working hours positively, but think that this may put them at a disadvantage. It has been revealed that advertisements that show women as strong and emphasize gender equality are more accepted and that such advertisements are more effective (Başfırıncı et al., 2018).

Methodology
Aim of the Study

This study aims to examine advertising campaigns designed to alter the social perceptions of Generati-

ons X, Y, and Z in Turkey. Although there are enough studies on women in the context of gender, there is insufficient research on men. With the impact of the Unstereotype Alliance Platform, the number of advertisements trying to change gender perceptions has increased. However, studies examining the perspectives of viewers from different generations on these advertisements are limited. The lack of research on this type of advertising perception in Turkey makes this study unique. The results of this research are intended to provide guidance for advertisers.

Methodology of the Study

The study was conducted using the in-depth interview technique from qualitative methods. Qualitative research offers the opportunity to analyze the study in detail (İslamoğlu & Alnıaçık, 2014: 221). Qualitative research is conducted when a problem or issue needs to be explored (Creswell, 2015: 47-48). Qualitative research is a process that examines perceptions and events in their natural environment holistically and realistically through methods such as observation, interview, and document analysis. By providing flexibility to the researcher, it allows the researcher to develop new methods and approaches in the research process (Yıldırım & Şimşek, 2011: 39-52). In the qualitative part of the study, phenomenological design and maximum variation sampling were preferred. By using maximum variation sampling, researchers can identify the main features and variable characteristics of a phenomenon experienced by different subgroups in a variety of contexts and thus synthesize studies that differ in various dimensions to create a holistic understanding of the phenomenon (Suri, 2011: 67-68).

Sample of the Study

Due to the purpose and subject of the research, this research requires a subject group to watch advertisements. Therefore, a quasi-experimental research was designed. This made it inevitable to work with young subjects (Generations X, Y, Z) due to their susceptibility to technology. However, this is an important factor limiting the generalizability of the research results. The findings are mostly valid for the young consumer segment. Participants under the age of 18 in Generation Z, which includes those born in 2000 and later, and members of Generation Alpha, which includes those born in 2010 and later, were excluded due to possible problems in obtaining parental leave under pandemic conditions. Generation Z was limited to those born in 2004 who were 18 years old at the time of the study. In terms of representing all three generations, the population of the study consists of individuals born between 1965 and 2004, aged 18 and over. The sample included 24 participants belonging to Generations X, Y and Z living in seven geographical regions of Turkey and living in

different cultural environments. Structured in-depth interviews were conducted face-to-face and online. Structured questions were created to measure the gender perceptions of Generations X, Y, and Z regarding advertising. The study adapted into Turkish by Uçar (2017: 92-93) and the study conducted by Gülmez (2017: 182) were utilized in formulating the questions. The prepared questions were checked and finalized by two academicians who are experts in their fields. After the questions were prepared, a pre-test was conducted and it was checked whether they were suitable for the study. In order to represent all three generations, the study was limited to individuals born between 1965 and 2004 and aged 18 and over. The sample includes 24 participants belonging to Generations X, Y and Z living in seven geographical regions of Turkey and living in different cultural environments. In the study, display advertisements published by advertisers who are members of the Unstereotype Alliance Platform were preferred. In the advertisements created in line with the objectives of the platform in question, the fight against the harmful attitude against women in the division of domestic labor and in the choice of profession and career is at the forefront. For this reason, advertisements in which the issue of domestic division of labor was covered were preferred for the study. The generations of the characters in the advertisements were also taken into consideration in the selection of advertisements. The in-depth interviews were conducted in the natural environment of the participants and with their voluntary participation. It was evaluated by the Uşak University Social Sciences and Humanities Scientific Research and Publication Ethics Committee at the meeting dated 13.01.2022 and as a result of the evaluation, it was decided that the methods to be applied within the scope of the research were ethically appropriate. In the study, the participants were interviewed between April 01 and May 31, 2022. Maximum diversity sampling was preferred in the study.

In the study, 10 display ads were selected by scanning the YouTube channels of advertisers. The selected advertisements were reduced to 3 by having the academic and administrative staff working at Uşak University Vocational School of Social Sciences and 2nd-year students of the Department of Radio and Television Programming watch them following the purpose of the study. In the research, "Erase with a single Solo" (Eczacıbaşı Holding brand) for Generation X, "Arçelik Imperium Go I is the most perfect version of a vacuum cleaner" (Arçelik-Koç Holding brand) for Generation Y, and "Fairy Platinum Plus is number 1 in tough food stains" (Fairy-P&G brand) for Generation Z were selected as advertisements reflecting gender. The content of the 3 advertisements shown to Generation X, Y, and Z respectively is given below.

Figure 1. Solo Disposable Cleaning Cloth Advertisement

Figure 3. Fairy Platinium Plus Dishwashing Detergent Advertisement

The advertisement takes place in the kitchen of a house. A middle-aged woman and a man are cooking in the kitchen. They both enjoy their cooking. When the woman breaks the egg, some of it overflows onto the stove and contaminates it. While the man is cooking something in another pan, one of the ingredients overflows out of the pan and contaminates the stove. At the same time, milk boiling on the stove overflows and contaminates the stove. The male actor takes out a disposable Solo cleaning cloth and cleans the stove and countertop. Both actors are seen with a happy and proud expression.

Figure 2. Arçelik Imperium Go Vacuum Cleaner Advertisement

In the advertisement, a middle-aged man and woman are seen in the living room of a house. The female character sits on the sofa looking at her computer while the male character vacuums the house with a corded vacuum cleaner; he has difficulties with the cable and the hose. The vacuum cleaner's cord breaks down and the vacuum cleaner turns into a cordless vacuum cleaner. The wireless vacuum cleaner makes the male actor happy and he continues vacuuming with this new vacuum cleaner. Meanwhile, the different usage characteristics of the vacuum cleaner are shown. After the vacuuming is completed, the male character places the vacuum cleaner on the wall hanger, goes to the woman and they chat happily on the sofa.

In the advertisement, two different families are shown. On the left side, in a blue-colored kitchen, there is the "Uğraşangiller" (Struggling Family) family consisting of a middle-aged mother and father and a boy around 10 years old. On the right side, in a green kitchen, is the "Pratikgiller" (Practical Family) consisting of a middle-aged mother and father, a girl around 13 years old, and a baby boy. The "Uğraşangiller" family scrubs the dishes thoroughly before placing them in the machine. The "Pratikgiller" family puts the dishes directly into the machine. The "Uğraşangiller" mother gives the "Pratikgiller" mother very dirty dishes and these dirty dishes are placed in the machine as it is. They come out of the dishwasher spotless. In the meantime, it is shown how the machine works. At the end of the wash, the "Pratikgiller" family happily puts away the clean dishes. The mother of the "Uğraşangiller" admires the cleanliness. In the end, it is emphasized that Fairy is the number one in tough food stains.

Research Questions

Structured questions were created in order to measure the gender perceptions of Generation X, Y and Z about advertising. While creating the questions, the study adapted into Turkish by Uçar (2017: 92-93) and the study conducted by Gülmez (2017: 182) were utilized. The prepared questions were checked by two academicians who are experts in their fields. Finally, a pre-test was conducted and the suitability of the questions for the study was checked. The study was limited to individuals born between 1965 and 2004 and aged 18 and over in order to represent all three generations. The interviews were conducted in the participants' natural environments and with voluntary participation.

The research questions of the study were formed as follows:

- What are the attitudes of male and female

participants of Generation X, Y, Z towards advertisements that combat gender stereotypes?

• How male and female participants from Generation X, Y and Z evaluated the advertisement they watched according to the following statements:

Convincing, impressive, interesting, informative, understandable, attention grabbing, message relevance, likability, the persuasiveness of the male character's message, the persuasiveness of the female character's message, pleasant elements, unpleasant elements.

Collection and Processing of Research Data

The research questions were directed to the relevant sample group and their responses were obtained. The in-depth interview lasted 30 minutes for each person. Records were taken during the interview and then analyzed. The data obtained were categorized and analyzed. Men belonging to Generation X were coded as XE, women belonging to Generation X were coded as XK, men belonging to Generation Y were coded as YE, women belonging to Generation Y were coded as YK, men belonging to Generation Z were coded as ZE and women belonging to Generation Z were coded as ZK. (In Turkish, the word

for male starts with the letter E and the word for female starts with the letter K). For example, the 1st female participant from Generation X was coded as XK1 and the 3rd male participant from Generation Z was coded as ZE3).

Results

Within the scope of the research, the age range of the participants is between 18-53. 13 women and 11 men. Generation X is represented by 9 people (5 women and 4 men), Generation Y by 7 people (3 women and 4 men) and Generation Z by 8 people (4 women and 4 men). 12 of the participants are single and 12 are married. Two of the participants graduated from primary school, 1 from middle school, 10 from high school, 3 from associate's degree, 7 from undergraduate degree and 1 from postgraduate degree. Among these graduates, there are some who are continuing their education and the study is based on the most recent level of education. One of the participants is not employed. Among the employed participants, 8 work in the private sector, 4 in the public sector and 3 are self-employed. Again, 4 of the participants stated that they were university students.

Table 1. Generation X's Views on Advertising

Advertising Elements	XK1	XK2	XK3	XK4	XK5	XE1	XE2	XE3	XE4
Convincing	Not Convincing	Not Convincing	Not Convincing	Not Convincing	Convincing	Not Convincing	Convincing	Not Convincing	Convincing
Impressive	Not Convincing	Not Convincing	Not Convincing	Not Convincing	Convincing	Not Convincing	Convincing	Not Convincing	Convincing
Interesting	Interesting	Interesting	Not Interesting	Not Interesting	Interesting	Not Interesting	Interesting	Not Interesting	Not Interesting
Informative	Not Informative	Informative	Informative	Informative	Informative	Not Informative	Informative	Not Informative	Not Informative
Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable
Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Attention Grabbing	Not Attention Grabbing	Not Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Not Attention Grabbing	Not Attention Grabbing

Message Relevance	Not suitable	Suitable	Suitable	Not suitable	Suitable	Suitable	Suitable	Not suitable	Suitable
Likability	Liked	Not Liked	Partially liked	Liked	Liked	Liked	Liked	Not Liked	Liked
The persuasiveness of the male character's message	Not convincing	Not convincing	Convincing	Convincing	Convincing	Convincing	Convincing	Not convincing	Convincing
The persuasiveness of the female character's message	Convincing	Convincing	Convincing	Not convincing	Convincing	Convincing	Convincing	Not convincing	Convincing
Pleasant elements	Cleanliness in the Kitchen	Cleanliness in the Kitchen	Family in the kitchen	Man in the kitchen	Cleanliness in the Kitchen	Man in the kitchen	Cleanliness in the Kitchen	Man in the kitchen	A happy family atmosphere
Unpleasant elements	There is nothing unpleasant	It is unrealistic to clean the kitchen so quickly	Exaggerated dirtiness	Exaggerated dirtiness	There is nothing unpleasant	There is nothing unpleasant	Exaggerated dirtiness	Exaggerated dirtiness	There is nothing unpleasant

The views of women in Generation X are summarized below:

Generation X women generally found the advertisement unconvincing and described the male and female characters as incompetent. "Milk overflowing is something I can't stand at all, it is very difficult to clean the milk stain from the stove, I was very uncomfortable with this, the reason for my discomfort is that a small napkin cannot clean that milk flow or egg white, they have heavy odors, hardened stains, so I was uncomfortable. Milk overflows when they are on the stove, they don't realize it, it was uncomfortable for me to be honest (XK3)", "It was not convincing. I think a Turkish woman cannot break eggs that dirty. It was not very convincing, I think it was very contrived, very contrived (XK4)". Female participants especially criticized the fact that a woman was so incompetent and found the way of cooking by dirtying the stove in the advertisement exaggerated. No. I didn't find it convincing, I mean, I think it's ridiculous. The food cooked at home is exaggerated. No, I think it is ridiculous to break an egg on the edge of the pan and pour it all over the stove (XK4)".

Female participants pointed out that a small piece of cloth cannot be an alternative to the traditional cleaning with detergent and water, but they still stated that the product could be given a try due to its practicality. Female participants also found the description of the product's functions and features adequate, but the majority did not find the product's claim of cleanliness realistic. "To be honest, the advertisement didn't convince me that a small napkin could clean so well, but visually it's a nice movie (XK3)". The fact that husband and wife work together in the kitchen was emphasized by the female participants. "I think this advertisement would have caught my attention. The fact that he was in the kitchen with his wife, that they were working together, preparing food, cleaning, working together, attracted my attention (XK3)", "I liked the fact that a man spent time in the kitchen, spent time with his wife. Because in our society, fathers are more distant from the kitchen. I don't know, all the burden falls on the mothers in the family. We like seeing fathers in the kitchen more recently than the old generation. This is important to lighten the burden of women (XK4)". Some of the female participants complained about the excessive workload at home. "I am a housewife, obviously I do all kinds of housework very, very much (XK2)". Participants who stated that fathers being more involved in the kitchen would lighten the burden of women stated that advertisements in which men and women are seen doing work together would set an example. "Yes, it is convincing. I think the message there is not just the feature of a wet wipe or a cleaning wipe. It also tells about a family cooking together in the kitchen, it also tells about being happy in the kitchen. It also tells that men should help their wives in the kitchen properly (XK4)". 1 participant stated that she would like to

see women doing different jobs in advertisements rather than cleaning. "Actually, it would be better if we saw our women in other achievements rather than cleaning, but it was still convincing (XK2)". The female participants belonging to Generation X stated that they mostly did cooking, laundry and dishwashing, vacuuming and dusting at home, and emphasized that they actually undertook almost all household chores except for wiping windows. One participant expressed her desire to retire from housework by stating that she also does all the repair work at home. "If you ask me, I do all the housework at home. I do all the repair work. I do all the cleaning work. They all look after me. I want to retire. I mostly do vacuuming, mopping, and folding and collecting laundry (XK4)".

The views of men in Generation X are summarized below:

Generation X men generally found the advertisement unconvincing and described the male and female protagonists as incompetent. In particular, they criticized the fact that a man was so incompetent and found the way of cooking by dirtying the stove in the advertisement exaggerated. "I didn't like it because they are trying to create a perception that men are untalented and incompetent in the kitchen. Therefore, this is not realistic. Both men and women can be skilled in what they do, and both men and women can be incompetent in what they do (XE3)", "I like the feeling of cleanliness. What I don't like is that not many people spill and scatter at home like this. It seemed a bit exaggerated to me (XE2)". Male participants, like female participants, pointed out that a small piece of cloth cannot be an alternative to traditional cleaning work with detergent water and a cleaning cloth. "The message can vary depending on the age group. People my age might like this ad because it's partly about product use. People older than me would definitely object to it because they use washcloths. Young people would definitely use this product. Therefore, it is likely that it gave a different message to each age group (XE2)", "I don't think it is appropriate, no one would clean the stove with such a cloth. At least I wouldn't do it (XE3). The majority of the participants found the description of the product's functions and features simple, clear, and understandable. "I found the advertisement to

be understandable. It was short and concise for a 15-20 second advertisement, and they showed how easy the product was to clean. (XE1)", "I found it understandable, simple and plain (XE4)". The fact that the husband and wife work together in the kitchen and that the male character does the cleaning after cooking the food is a particular point emphasized by the participants. "The message given was appropriate. There were two messages; the first was how well he cleaned the kitchen, and the second was the presence of a man in the kitchen. Another issue could be that the kitchen is not shown as only a woman's job (XE1)", "The message given by the man is convincing. Because they also explained that it is not only a woman's job in the kitchen. The two of them gave a nice message together in the kitchen. But I couldn't remember the female actor. The male character played his role well in the advertisement. He played a person who helps his wife. The advertisement achieved its goal (XE2)". Participants stated that they play an active role in maintaining order and cleanliness in their homes, but emphasized that they do little cooking. "I do jobs such as emptying the dishwasher, ironing, collecting and throwing away garbage, and getting bottled water (XE4), "I do all the housework in the house where I live, as a former tourism employee, I am proficient in all subjects except cooking (XE1)".While one participant found the picture of partners cooking together "fun", another participant described it as a "happy family picture". "The male character's acting is nice, but I laughed a lot when he did the cleaning (XE1)", "It's impressive because there's a nice kitchen and smiling people. There's a happy family atmosphere (XE4)". From the general statements of the participants, it can be said that they care about cleanliness and do not like dirty environments. "I don't like milk to boil over. When I break an egg, I don't break it on the side. I take it over the sink. I never break it on the stove so the stove doesn't get dirty. They should have been careful. They went a little overboard. Irregular life. It is not suitable for my lifestyle due to my age (XE2)", "I don't like something like that to spill in my house, I don't like it very much. There is a situation related to the promotion of the product, there are things done to show the attractiveness of the product etc., okay but this way of doing things bothered me a little (XE3)".

Table 2. Generation Y's Views on Advertising

Advertising Elements	YK1	YK2	YK3	YK4	YE1	YE2	YE3
Convincing	Not Convincing	Convincing	Convincing	Not Convincing	Convincing	Convincing	Convincing
Impressive	Impressive	Impressive	Impressive	Not Impressive	Impressive	Impressive	Impressive

Interesting	Interesting	Interesting	Interesting	Not Interesting	Interesting	Interesting	Interesting
Informative	Informative	Informative	Not Informative	Not Informative	Not Informative	Not Informative	0Informative
Understandable	Understan-dable	Understan-dable	Understan-dable	Not Unders-ta	Not Unders-ta	Understan-dable	Understan-dable
Attention Grabbing	Attention Grabbing	Attention Grabbing	Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Attention Grabbing	Attention Grabbing
Message Relevance	Suitable	Suitable	Suitable	Suitable	Not Suitable	Not Suitable	Suitable
Likability	Liked	Liked	Liked	Not Liked	Partially liked	Partially liked	Partially liked
The persuasiveness of the male character's message	Convincing	Not Convincing	Not Convincing	Not Convincing	Not Convincing	Not Convincing	Convincing
The persuasiveness of the female character's message	Convincing	Convincing	Convincing	Not convincing	Not Convincing	Not Convincing	Convincing
Pleasant elements	Pleasant	Pleasant	Pleasant	Partially Pleasant	Partially Pleasant	Partially Pleasant	Partially Pleasant
Unpleasant elements	Exaggerated dirtiness	Nothing unpleasant	Nothing unpleasant	Nothing unpleasant	Nothing unpleasant	Partially unpleasant situation	Partially unpleasant situation

The views of women in the Y generation are summarized below:

Generation Y women generally find the advertisement impressive and convincing; they focus mostly on the transformation of the product from wired to wireless. "Yes, I found it interesting. Because according to my experience, the broom seems to be more convenient to use and sweeps more easily. I also liked the change (YK2)." The effects used in the animation sections of the advertisement were appreciated and it was seen that these effects helped the product achieve its informative goal. "It was told fantastically, like surreal events. That change, that innovation was actually interesting, we can say it was remarkable (YK1)", "Yes, it was remarkable. Effects such as the vacuum cleaner getting rid of its bulkiness, the plug coming out of the socket and changing shape were remarkable (YK1)".The majority of the participants found the description of the product's functions and features sufficient and focused on the different attachments. "I liked it, the ad explained the general features of the product well. The ad shows that it reaches places that are normally hard to reach by vacuuming. It shows that it does this by using light and in a way that you can easily see. It shows that the broom can reach different places like the bookshelf. They put a cat, it probably has a feature related to hair. It explains such features, I liked it because it shows how it makes life easier (YK3)".

According to some participants, the fact that the male actor " helps" his wife in the cleaning work and " undertakes a task" in this regard is a matter that the participants especially emphasized. "I generally liked the advertisement I watched. It was nice that the couples helped each other and introduced the vacuum cleaner. (YK2)", "I think the male character in the advertisement was positioned very well. Because housework is not only specific to women, or it is not something that belongs to a single gender. The male character is united with a female figure there, but this may not be the case in real life, men can live alone and do such work alone. This is not something that is attributed only to the female gender or the concept of woman. Here, I think the brand has drawn attention to this, which is very nice and appropriate (YK1)". One participant stated that at the beginning of the advertisement when the woman was sitting, she assumed that the man was unhappy because he was uncomfortable doing this job, but then she realized that his unhappiness was due to the problem he had with the cable. The same participant pointed out that the woman can use the time she spends vacuuming the house more efficiently while her husband does this job. Participants pointed out that housework should not be perceived as something that belongs only to women, and emphasized the importance of cooperation between spouses, as depicted in the advertisement. "Yes, I found it convin-

cing. I think that working women should be helped by their husbands. I see a happy female character (YK2)". Again, one participant stated that men in Turkey do not behave in this way and did not find the plot of the advertisement realistic. "Frankly, I did not find it very convincing because we do not see something like this in Turkish men in general. I think all men should help their wives (YK2)". The fact that the male character was vacuuming while the female character sat down and continued her work was positively distinctive for the participants, but prejudiced statements were also made that men would not be skilled enough to do housework. "If a message is being sent through a man, it could be like this, it is not a job that men do much anyway. Sweeping the house was even more difficult with old-fashioned brooms. I saw him as a homebody, someone who likes to help his wife and is meticulous (YK3)". Participants belonging to Generation Y stated that they mostly do cooking, washing clothes and dishes, vacuuming and dusting at home, and emphasized that they do almost all household chores. A participant who continues to live with her family said that although she does all kinds of housework, there are days when she spends less time on these tasks; the mother, a member of Generation X in this household, undertakes these tasks. I tidy up and clean my own environment, my room. I do a lot of housework when I'm at home, but since I'm not at home very much, I can say that there are many periods when I don't do work at home (YK1)".

The views of men in the Y generation are summarized below:

Generation Y males generally find the advertisement impressive and convincing; they focus mostly on the transformation of the product from wired to wireless. "I found it convincing because it was nice that they kept up with technology (YE1)". "I found it convincing. It reflects that Arçelik keeps up with the changing technology. I found it convincing in this regard (YE3)". The effects used in the animation sections of the advertisement were appreciated by the participants and it was seen that these effects helped the product achieve its informative goal. "Yes, I found it interesting. Because the animation gives us clarity. It shows the ease of use of the broom (YE2)". The majority of the participants found the description of the features of the product sufficient but emphasized that the functions of the product should be covered in more detail and alter-

natively. "I found it remarkable, the change in the vacuum cleaner with technology was more striking. (YE1)", "Yes. The advertising design was sufficient (YE2)". The conversion of the product from wired to wireless was seen as a convenience by the participants, and some participants even stated that they could be more efficient in the elaborate sweeping work they do less. Some of the participants found it disturbing that the female character was passive/submissive in the advertisement but explained the reason for this disturbance as taking up unnecessary space in the advertisement. "There is nothing extra about the female character because she does not have a message (YE1)", "The part I do not like is that the role of the female character is ineffective and takes up space visually. I think this situation creates a decrease in the quality of the advertisement (YE2)". Participants who found the male actor in the advertisement appropriate were more interested in the functions of the product rather than the actors. Pointing out that it is a general belief in society that housework is perceived as something that belongs only to women, the participants said that men can also do housework. "Yes, I find it remarkable, because the subject of cleaning is generally associated with women, this cleaning advertisement made by a man is remarkable (YE3)", "There was not much of a message, but the fact that a man is vacuuming highlights the male character that has kept up with the modern age (YE1)". They stated that men prefer to stay away from this kind of work due to this general acceptance, and one participant even described this situation as "taboo". "The female character was effective in this respect; there is a taboo created by them that only women should do housework. The fact that the male character uses the vacuum cleaner while the woman is working on the computer in the corner breaks this taboo. In other words, I think the ad provides a balance (YE3)". Male participants belonging to Generation Y stated that they do more cooking, laundry and dishwashing, and daily minor cleaning at home, and less dusting and detailed vacuuming. One participant said that he liked the housework he did and found it entertaining. "I like to wash dishes and mop the floor. I also like to hang curtains because I am asked to help with this at home, and that pleases me. I also like washing dishes, it is very nice when accompanied by a song. I don't like vacuuming, but when I saw the product in this advertisement, I was attracted by its ease of use, so now I might like vacuuming (YE2)".

Table 2. Generation Y's Views on Advertising

Advertising Elements	ZK1	ZK2	ZK3	ZK4	ZE1	ZE2	ZE3	ZE4
Convincing	Not Convincing	Not Convincing	Not Convincing	Not Convincing	Convincing	Not Convincing	Convincing	Convincing

Impressive	Not Impressive	Not Impressive	Not Impressive	Impressive	Impressive	Impressive	Not Impressive	Impressive
Interesting	Not Interesting	Interesting	Interesting	Not Interesting	Interesting	Not Interesting	Interesting	Interesting
Informative	Not Informative	Informative	Informative	Informative	Informative	Informative	Informative	Informative
Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable	Understandable
Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Not Attention Grabbing	Attention Grabbing	Attention Grabbing
Message Relevance	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
Likability	Not Liked	Not Liked	Liked	Not Liked	Not Liked	Liked	Liked	Liked
The persuasiveness of the male character's message	Not convincing	Not convincing	Convincing	Convincing	Convincing	Not convincing	Not convincing	Convincing
The persuasiveness of the female character's message	Convincing	Convincing	Convincing	Not convincing	Not Convincing	Convincing	Convincing	Convincing
Pleasant elements	Father-child figure	Nature and conservation	Family co-operation	Family co-operation	Cleanliness	Fast Cleaning	Family co-operation	Blue and green colors
Unpleasant elements	Splitting the family in two	Male characters remain in the background	Denigrating the rival company	Unrealistic	There is nothing unpleasant	Roles are unrealistic	There is nothing unpleasant	There is nothing unpleasant

The views of women in Generation Z are summarized below:

Although women in Generation Z did not find the advertisement convincing in general, they found it impressive that male and female characters wash dishes together. "I didn't find it convincing because I don't think any chemical can remove it without rubbing (ZK2)", "I found it impressive because it shows the sharing of work in the family" (ZK4). Participants who described the information in the advertisement as simple and ordinary stated that they found the advertisement understandable and appropriate. However, they also pointed out that it would not be possible to clean such heavy stains in the machine alone. "I found it informative because they expressed what they wanted to say in the advertisement (ZK2)", "I did not find it convincing because the whole family cannot wash one dish and I do not think that the dry stain will come out only in the machine" (ZK4). Despite the simplicity of the message, the use of visual effects was appreciated, and one participant stated that the use of the green theme for Fairy draws an image associated with saving and nature. The fact that family members work together in the advertisement caused all participants to approach the advertisement positively, and some participants even said that they think that men, not women, should be more prominent in this advertisement. Stating that these messages could set an example for boys, one participant pointed out that the way male characters do housework should be covered in more detail in the advertisement. "I can't say I found it very impressive, but when I think about it, it is striking and eye-catching because the visual effects are used well (ZK3)", "It is shown that men also take part in housework. The fact that the boy also helps is a good example for the boys. It could have been just men instead of women. In a way that one man gives information to the other" (ZK4). One participant described the "Uğraşangiller" mother (name in the ad) who was busier with the dishes as more tired and the "Pratikgiller" mother (name in the ad) who did less work as more energetic; she predicted that the "Pratikgiller" mother would have more time for her family. "The woman who used the competitor's detergent was more tired and could spend less time with both housework and her family, but on the other hand, the woman who used Fairy Platinium see-

med to be more energetic because she did not have to exert any physical strength or power (ZK3)." Some participants were disturbed by the fact that the "Uğraşangiller" family, in which the mother does more work, is portrayed as if they are doing something very wrong, while the "Pratikgiller" family is positioned as a perfect family because the machine is not enough to remove those stains. "They divided the family into two families, as if it was a huge mistake… They put up a dishwashing detergent advertisement as if they were making one of the biggest mistakes. They also put up the family that used Fairy as if it was a perfect family. I didn't like that very much, I can say that (ZK1)". One participant emphasized that she felt "used" in both types of work, stating that she did all kinds of farming work, including lifting weights (which she considered to be a men's job), and that she continued to do all household chores at home after this work. "I do the jobs that men do. I lift a lot of weights, and I can say that I play a leading role in housework. On top of working for hours, I also get up and do housework. I can say that I am used a lot in both jobs (ZK1)". Other participants stated that they mostly do cleaning, vacuuming, and dishwashing, while they do less cooking. "I do a lot of cleaning work, I mostly deal with the dishes and less with cooking (ZK2)", "I do my general cleaning, I usually vacuum a lot, since I don't eat much at home and I usually vacuum more because I work (ZK3)".

The views of men in Generation Z are summarized below:

Men in Generation Z generally found the ad convincing and found it impressive that male and female characters wash dishes together and in sharing. "I found it convincing. Because; the effects in this advertisement made by Fairy, the cleaning of the dishes, etc. made it very convincing (ZE1)", "Yes. I liked it because there was cooperation within the family (ZE3)". The participants, who found the information in the advertisement understandable, simple, and appropriate, described the delivery of the message through visual effects as remarkable. In particular, the comparison of the products and the dishwashing styles of the families was found impressive, especially the green and blue colors used in the advertisement attracted attention. "I think it was appropriate, as I said, there is a comparison. The colors were used beautifully, and based on this, there was a side that attracted human psychology. Therefore, I think the message was given (ZE3)", "Those colors were used because the liveliness of the colors definitely touched on human psychology, and the cooperation within the family, that is, from the youngest to the oldest (ZE3)". The fact that Fairy washes dirty plates by washing them directly in the machine without any scrubbing was considered interesting, but doubts were also expressed. "No. Because I use a

dishwasher myself and because of that I believe it is unrealistic (ZE3)". The participants stated that the fact that the female characters in the role of mother were more prominent placed them in a guiding, decision-making position in terms of dishwashing, and they evaluated the male characters as passive/submissive. "So I didn't like it very much because the male characters had no role and they just stood in the background (ZE2)", "The women were more in the foreground, so no (ZE3)". In general, the participants did not indicate any significant disturbing issue in the advertisement and were more focused on the functions of the product and visual effects. Two participants stated that they do less washing and placing dishes and more vacuuming and floor-sweeping. One of the participants stated that he did not do any housework, while another participant stated that he did all housework with pleasure. "I don't do any housework at home (ZE2)", "Everything from wiping doors to doing laundry, from cleaning the house to washing dishes. House cleaning in general. General cleaning of the house, in other words sweeping and mopping, I really like all of these. If I have to give a specific detail, I can't because I love them all. Dusting in general (ZE3)".

Discussion

Gender is shaped by being influenced by socio-cultural characteristics. Advertisements also play an important role in this shaping. In this study, advertisements of 3 different brands broadcast in Turkey were shown to generations X, Y and Z and their opinions were taken. In the Solo advertisement, men and women working together in the kitchen was evaluated as a positive example. The advertisement emphasizes men's participation in cleaning work and lightening the burden of women. Participants also expressed that they would like to see women doing different jobs in advertisements. In the Arçelik advertisement, the male actor is positioned as "helping his wife" in vacuuming and is shown taking an active role in the house. The fact that the female character is passive while the male character does the housework in the advertisement was evaluated positively. The fact that family members work together in the Fairy advertisement caused all participants to have a positive approach. Some participants stated that male characters should be more prominent and that these messages could set an example for boys. They emphasized that the way male characters do their work should be covered in more detail, and criticized the fact that female characters were more prominent in dishwashing and that the work done by male characters was not shown sufficiently. Participants also emphasized that showing women not only cleaning but also doing different jobs in advertisements would contribute to the diversification of gender roles. In a similar study, it was revealed that

advertisements that portray women as strong and emphasize gender equality are more accepted and such advertisements are more effective (Başfırıncı et al., 2018). It is seen that some of the female participants have prejudices that men do not have sufficient skills to do housework. While the majority of generations X, Y, and Z expressed a positive opinion about men and women doing housework together, they did not find the message given in the advertisement realistic. However, they found this message positive and wanted men's domestic work to continue and increase. They pointed out that giving this message in advertisements could change the perception of gender. Although stereotypes about gender roles continue in society (Eisend et al., 2019), the results in some advertisements show that gender perception has begun to change. For example, a study determined that there were positive developments regarding women's roles in advertisements, and that family roles and various roles emerged in male portrayals (Tsichla, 2020: 28). In a similar study, it was determined that the advertisements examined mostly contained traditional gender roles, but there were some progressive roles (Sanay & Şener, 2021). In a study conducted on 8 advertisements shot between 2020 and 2023, it was determined that the advertisements destroyed social preconceptions about the roles of men and women and treated the man as an individual who takes care of his children and home (Doğan & Kahraman, 2023). In advertisements published for March 8 International Women's Day, it was seen that women were portrayed outside of traditional gender roles (Çilingir, 2019). In this study and some academic studies, it is seen that stereotypes in gender perception, especially in advertisements, are now beginning to change.

Conclusion and Implications

In this study, the perceptions of generations X, Y, and Z in Turkey towards advertising campaigns that aim to transform gender stereotypes are revealed. Within the scope of the study, 24 people were interviewed and their opinions about gender were obtained through 3 advertisements belonging to different brands. As a result, it was evaluated positively that men, as well as women, were active and did work at home. Participants also demanded that women be portrayed in different work areas in advertisements. In addition, it was positively received that family members worked together at home in the advertisements that were shown. Participants also emphasized that showing women in advertisements doing different jobs, not just cleaning, would contribute to the diversification of gender roles. Finally, in line with the results of the research, various recommendations are presented. Advertising can contribute to the evolution of gender roles by promoting egalitarian approaches to housework.

Showing women not only cleaning but also doing different jobs in advertisements can contribute to the evolution of gender roles. Men taking an active role in housework in advertisements can help change social perceptions. Advertising messages that emphasize that housework is not a task that belongs to women can increase men's participation in these chores. Advertisements that show housework as enjoyable can help to create a more positive perception of these tasks. Normalizing men's active role in housework can be a positive step towards gender equality. Furthermore, in future studies, comparisons can be made with different countries by taking the opinions of different generations on the advertisements of different brands.

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Evaluation of the Applicability of the Therapeutic Recreation Forest Therapy in Antalya Termessos National Park 🔶

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Abstract

Nowadays, many scientists, especially in the period of developments all over the world, have stated that the healing effect of modern medical techniques and the existence of many products and activities in certain proportions naturally provide benefits for the protection of health. Within the scope of this successful therapeutic recreation, the healing feature of wide nature therapy (ecotherapy) for human health, the specialty of forest therapy and the organized presentation and the termination of its applicability in Antalya Termessos National Park, which is regionally important in terms of tourism. For this purpose, the scale of 'Determination of Recreational Potential of Open Air and Forest Areas', first proposed by Kiemstedt and later developed by Leier and Gülez (1990), was used in the study. As a result of on-site observation and evaluation of Termessos National Park, landscape value was evaluated as 25 points, climate value out of 23 points, accessibility 13 points, presence of recreational facilities and playgrounds within the park 15 points and negative factors 0 points. These scores reveal the result that the recreational potential value of Termessos National Park is 75%. This high score shows that the park is mainly used by local people for recreational activities and is suitable to meet the recreational needs of its visitors. The absence of literature investigating the applicability of Forest Therapy to a specific destination makes it different.

Keywords: Therapeutic Recreation, Nature-Based Recreation, Nature Therapy, Forest Therapy, Termessos National Park.

JEL Codes: L83

Murad Alpaslan Kasalak / Aysun Yalvaç / Didem Kutlu

Introduction

Tourism can significantly enhance the well-being of tourists, offering both social and economic benefits, particularly in the context of healthcare systems and health insurance. Visiting parks and natural environments often promotes mental health improvements (Buckley & Cooper, 2022). Research indicates that integrating nature-based products and activities with modern medical practices yields notable health benefits (Berger & Tiry, 2012; Bor, 2018; Dolling et al., 2017; Kil et al., 2023; Kim et al., 2015; Lee et al., 2017; Lyu et al., 2019). This trend has led to increased consumption of natural resource-based products and a heightened interest in outdoor activities, which are known to enhance mental health, foster social connections, and aid rehabilitation—especially for individuals with health restrictions, such as those with disabilities, the elderly, and chronic patients (Song et al., 2016).

A study on therapeutic camps in Hungary highlighted key developmental areas for young people with serious illnesses, such as perseverance, empathy, self-confidence, and teamwork, all of which participants attributed to their camp experiences (Papp et al., 2023). Therapeutic recreation utilizes purposeful recreational and experiential interventions to promote holistic health transformations across social, emotional, intellectual, physical, and spiritual dimensions (Carter & Van Andel, 2019). According to the National Council for Therapeutic Recreation Certification (NCTRC), therapeutic recreation systematically employs activity-based interventions to address the needs of individuals with illnesses or disabilities, promoting overall well-being. This process enhances various aspects of functioning, facilitating full participation in life. Therapeutic recreation includes diverse activities—arts and crafts, animal interactions, sports, games, music, and community outings—aimed at improving physical, mental, and emotional health by reducing stress, aiding recovery, building confidence, and enhancing socialization (Bor, 2018; Uzun Dönmez, 2019; NCTRC, n.d.).

Forest therapy, a form of therapeutic recreation, focuses on a mindful and immersive approach to experiencing nature, engaging all the senses. This practice can be integrated with various recreational activities to enhance its benefits (Kil et al., 2021). Environmentalists, public health experts and tourism planners recognize that there is a growing need to promote more sustainable approaches to improving human health by encouraging more frequent use of the natural environment and forest environments. It is stated that forest therapy, which we particularly emphasize in this study, has not only become a health and wellness trend in recent years, but also a highly desired activity in nature-based tourism destinations (Zoric, et al., 2022: 1). The concept, known as shinrin-yoku or "forest bathing," originated in Ja-

pan, introduced by the Japanese Forestry Agency in 1982, and has since gained widespread popularity (Rajoo et al., 2020). Research indicates that engaging in forest therapy can significantly enhance both physical and mental health (Joschko et al., 2023; Rosa et al., 2021; Song et al., 2017; Zhang et al., 2023). A study conducted in Japan on the mental health of children and adolescents discovered that forest therapy, a therapeutic recreation method that involves a slow and mindful connection with nature, can enhance mental well-being. The research concluded that structured forest therapy programs significantly reduced negative mood states and markedly improved positive mood states (Kil et al., 2023). A research study involving 60 male adults aged 19 to 24 years, all with similar health conditions, investigated the psycho-physiological effects of bamboo forest therapy. The results demonstrated that a three-day therapy session significantly enhanced positive mood states while reducing negative mood states among the participants. Additionally, the study found improvements in both psychological and physiological well-being, alongside strengthened immune functions (Lyu et al., 2019).

In the realm of tourism, research on forest therapy appears to lack depth. Kil et al. (2021) investigated the variations in demographic and visit characteristics, preferences for recreational experiences (i.e., desired on-site experiential benefits), and preferences for enhanced well-being outcomes (i.e., long-term off-site benefits) among forest therapy participants, considering their level of place attachment. The study revealed that individuals with a strong attachment to the place prioritized recreational benefits such as social connectedness, enjoyment of nature, and recreational health more highly. Sim et al. (2018) explored the influence of nature-based experiences in national parks on visitor satisfaction and their intention to revisit. The authors identified positive correlations between visitor experiences, satisfaction, and the intention to return. Given the scarcity of publications on forest therapy, this study seeks to address this gap in the literature. In this context, the study initially presented nature therapy, highlighting its significance, qualities, and health benefits of forest therapy. Subsequently, it evaluated the feasibility of applying this therapy within Antalya Termessos National Park. The distinctiveness and originality of this research stem from its status as the first study in Turkey to examine the applicability of forest therapy in a specific location. Identifying the outdoor recreation potential of Termos National Park is also crucial for tourism diversification. Diversification is a key strategy for reducing a destination's dependency on a limited range of attractions or markets, thereby promoting innovation and sustainability within the tourism sector. By broadening its base, a destination can offer various products and experiences, target different market segments, and develop

extensive networks and partnerships. This approach balances tourist flows throughout the year and increases capacity utilization, thereby enhancing the overall competitiveness of the destination. In addition, diversification is associated with value creation or risk minimization at the customer end (Benur ve Bramwell, 2015; Weidenfeld, 2018). In this context, the assessment of Termessos National Park's outdoor recreational potential is pivotal. ıt enables the development of diverse tourism offerings that can attract a wider audience, mitigate the risks associated with market dependency, and foster a more resilient and dynamic tourism economy. The Gülez Method will be employed to comprehensively assess the outdoor recreational potential of Antalya Termessos National Park. This method, known for its systematic approach to evaluating natural landscapes, has been validated through extensive research and application in various contexts. Prior studies, such as those conducted by Eroğlan et al. (2022), Sü Eröz & Aslan (2017), and Tülek (2021), have established the method's suitability and effectiveness in similar assessments. These studies have demonstrated that the Gülez Method provides a robust framework for analyzing environmental attributes, visitor capacity, and recreational opportunities, ensuring a thorough and reliable evaluation of the park's potential for outdoor activities.

Literature Review

Nature Therapy (Ecotherapy)

In light of advancements in technology and urbanization, stress levels have evidently been on the rise. Consequently, nature therapy, a method of improving health, has been garnering increasing interest. Exposure to natural stimuli, such as forests, plants, and sunlight, has been demonstrated to have beneficial effects on well-being and relaxation. This exposure enhances mindfulness and activity in the parasympathetic nervous system, which, in turn, facilitates relaxation (Song et al., 2016). Currently, nature therapy is being utilised in numerous countries as a component of positive psychotherapy. A study conducted in Israel demonstrated that nature therapy can facilitate rehabilitation, personal growth, and development in adults experiencing emotional and psychiatric disorders (Berger & Tiry, 2012). Research conducted in Australia has recognized nature as a valuable public health resource, highlighting the potential of nature tourism businesses to offer therapeutic benefits. For these businesses, it is crucial to develop programs that foster contact and connectivity with nature while supporting personal development and transformative experiences. This approach ensures the sustainable well-being of both individuals and the planet through consistent engagement with natural environments (Clissold et al., 2022). A study assessing the efficacy of nature-based therapy

for young patients with psychosomatic conditions found improvements in mental health and nature attachment, alongside reductions in stress levels over the therapy period (Joschko et al., 2023). Another study by Song et al. (2019) in Japan revealed that a combination of forest-related visual, olfactory, and auditory stimuli elicited both physiological and psychological relaxation effects, notably enhancing feelings of comfort and relaxation. In recent years, the popularity of these therapeutic applications has surged in Turkey, with their utilization significantly increasing, particularly in clinical settings and in the rehabilitation of individuals with special needs (Sarıçam et al., 2015).

The concept of "nature therapy" refers to a collection of practices designed to achieve preventive medical benefits by exposing individuals to natural stimuli. These stimuli induce a state of physiological relaxation and enhance weakened immune functions, aiding in disease prevention. Unlike the targeted effects commonly associated with pharmacological treatments, nature therapy aims to bolster immune functions, prevent illnesses, and promote overall health through interaction with natural environments. This approach not only fosters a state of relaxation but also contributes to long-term health maintenance and disease prevention. (Song et al., 2016). The term "nature therapy" encompasses a range of creative activities, including gardening, physiotherapy, traditional therapies, socialization, stress management, relaxation, and handicrafts. A synthesis of these activities within a natural setting has been demonstrated to be an effective approach to stress rehabilitation (Dolling et al., 2017). A clinical trial of patients undergoing flexible bronchoscopy indicated that a combination of nature sounds and images resulted in a reduction in pain. Patients exposed to these natural stimuli reported a notable increase in their perception of pain control. In a separate study conducted on healthy individuals, exposure to videos of natural landscapes was found to increase both pain tolerance and threshold. Additionally, a study by Summers and Vivian (2018), showed that patients who had undergone spine surgery experienced reductions in pain, stress, the need for painkillers and overall drug costs when exposed to sunlight.

Forest Therapy

Forest therapy, or forest bathing, involves spending time in a forest environment or participating in therapeutic activities within a forest setting to enhance health and well-being (Lee et al., 2017). The rise in urbanization, along with air, noise, and water pollution, work-related pressures, and other urban stresses, is driving individuals to seek stress relief and healthier lifestyles. Recently, an immersive forest experience termed 'forest therapy' has gained significant attention as a novel psychological therapy

aimed at reducing stress and promoting relaxation. This therapeutic approach is rapidly expanding, with researchers striving to better understand and evaluate the connection between forests and human health (Lyu et al., 2019). Rosa et al. (2021) found that, on average, forest therapy is more effective in alleviating depressive symptoms compared to similar activities conducted in hospitals or urban areas without forests, as well as interventions centered on diet and forest-based exercise.

The term "forest therapy" refers to a brief, restorative visit to a forest park, known in Japanese as "Shinrin-yoku," which is akin to natural aromatherapy. The phrase "shinrin-yoku" translates to "bathing in the forest atmosphere" or "sensory immersion in the forest." A forest therapy excursion involves visiting a park for relaxation and recreation, facilitated by the inhalation of phytoncides—volatile organic compounds emitted by trees, such as ⍺-pinene and limonene. The concept of integrating forest therapy trips into a healthy lifestyle was first introduced as a national health program by the Japan Forest Agency in 1982. Since then, it has gained significant recognition in Japan as an effective activity for relaxation and stress management (Li, 2019). Interest in forest therapy research has increased over time, with most studies focusing on its effects on human health from physiological and psychosocial perspectives. Additionally, some research explores its potential effectiveness in treating specific conditions, such as hypertension and depression (Kil et al., 2023; Rajoo et al., 2020; Yeon et al., 2021; Zhang et al., 2023). Integrated into Japanese culture, forest bathing is not merely a walk in the forest; it also entails perceiving and experiencing the environment with a tranquil, composed, and alert consciousness during the walk. Since the 1980s, forest bathing has been investigated from various perspectives (Yalvaç et al., 2022). Medical professionals including doctors, environmental physicians, ecologists, and wildlife educators are investigating the reasons for the healing effect of forests on humans and their protective effect against cancer. The initial study in this field was conducted by Swedish physician Roger Ulrich, who demonstrated in 1980 that the mere presence of a tree visible from a hospital window facilitated the recuperation process for patients. Twenty-three surgical patients placed in rooms with windows overlooking natural scenery experienced shorter postoperative hospital stays, received fewer negative comments in nurses' notes, and required fewer potent analgesics compared to 23 matched patients in rooms with windows facing a brick wall (Ulrich, 1984). In another study, Kim et al. (2015) conducted a study involving 11 patients with stage 3 breast cancer who were exposed to forest therapy for 14 days. The results demonstrated a significant reduction in both natural cytotoxicity and immunosuppression. The authors concluded that forest therapy has the potential to be an effective adjuvant therapy following standard cancer treatments. Forest bathing, a key component of Japanese medical practice, has been demonstrated to offer numerous health benefits, including alleviation of mental fatigue, enhancement of happiness, strengthening of the immune system, promotion of physical activity and cardiovascular health, reduction of stress, improvement of visual acuity, and increased capacity to manage pain (Ivens, 2018). Following a period of exertion in an outdoor setting, such as a forest walk, the number of white blood cells in the bloodstream can increase by approximately 50%. Furthermore, these white blood cells remain active for an extended period following a forest walk, allowing them to combat foreign microbial pathogens and the body's malignant cells. This phenomenon, which may appear to be miraculous, has been statistically validated by the Nippon Medical School. Their research indicated that individuals residing near forest environments exhibited a reduced likelihood of developing cancerous conditions compared to those living in other locations. As Wöfle (2016) notes, scientists have recently revealed that spending time in forests has a relaxing and stress-reducing effect. The practice of forest walking has been demonstrated to result in a reduction in parasympathetic nerve activity, as well as a decline in pulse, blood pressure, and cortisol levels. In addition to the favourable impact on the cardiovascular system, there is a notable enhancement in the production of anti-aging proteins and cancer-fighting cells. As reported by Morse (2013), a 2007 study conducted by researchers at Kyoto University Medical School found that forest environments were particularly advantageous for those experiencing chronic stress, especially in terms of acute emotional responses. Therefore, it can be concluded that forest bathing represents an effective method of stress reduction, with forest environments offering a therapeutic environment. Moreover, it has been determined that forest therapy is linked to the concept of 'biophilia,' which refers to the innate human affinity for life and the natural world. Contemporary research supports the idea that interactions with nature and other living organisms enhance human well-being and health on both psychological and physiological levels. Recent findings in forest therapy provide significant biomedical support for the concept of biophilia, reinforcing the understanding that exposure to natural environments and living organisms contributes positively to overall health and well-being (Arvay, 2019). Furthermore, there is evidence to suggest that trees have a positive effect on mental state. The literature review revealed that all studies reported a decrease in aggression, anxiety, and depression due to increased vitality and satisfaction after spending time among trees (Ergüven, 2019).

Song et al. (2017) conducted a comprehensive evaluation of the long-term impact of a forest therapy

program on the blood pressure of office workers. The study involved participants in a structured one-day forest therapy session. The findings revealed a significant reduction in both systolic and diastolic blood pressure immediately following the completion of the program. Remarkably, these beneficial effects were not transient; the reduced blood pressure levels were maintained for five days post-program. This sustained improvement underscores the potential of forest therapy as an effective intervention for managing blood pressure and promoting cardiovascular health among individuals subjected to the stresses of office work. The study emphasizes the importance of incorporating natural environments into wellness programs to achieve long-lasting health benefits.

Materials and Methods

The study utilized the method of 'Determining the Recreational Potential of Open Air and Forest Areas,' originally proposed by Kiemstedt (1967, cited in Tülek, 2021) and later refined by Leier (1979, cited in Tülek, 2021) and Gülez (1990), to evaluate the recreational potential of Termessos Natural Park. In 1967, Kiemstedt investigated the suitability of natural landscape elements for recreational purposes, evaluating factors such as forest and water coast landscapes, climate, and various land uses. However, methods used to determine the potential for recreational activities often fail to accurately reflect the true recreational potential of a specific location. Some of these methods are designed to assess the suitability of large regions for recreational activities on a broader scale. Most of these methods, which adopt an economic perspective, predict future recreational potential by considering various criteria, but they often overlook or minimally incorporate existing natural landscape elements. Methods that use formulas to estimate the recreational value of an area typically require a basic understanding of statistics. In approaches that consider the actual natural landscape and geophysical features of a region, negative factors are usually either excluded or included only to a limited extent. Similarly, the weights and scores assigned to climate factors are largely subjective. Additionally, only a few of these methods apply to forest recreation areas (Gülez, 1990). Therefore, the Gülez Method was employed to effectively determine the outdoor recreation potential of a forest recreation area. The efficacy of this method is corroborated by the findings of Eroğlan et al. (2022), Sü Eröz and Aslan (2017), and Tülek (2021). By substituting all values into the V-Value (Versatility Value) formula, the resulting value indicates the recreational suitability of the region (Gülez, 1990). Gülez's (1990) method, designed to determine the actual outdoor potential of small area units using a simple mathematical formula, facilitates the calculation of the recreational

potential of forest and outdoor areas. This practical method is demonstrated below.

$$\% \, RP = P + I + U + RK + OSE$$

The Table 1 illustrates the significance of symbols used in the formula, along with their assigned weights and the distribution of maximum points they can receive. As shown in the table, since the total points are theoretically capped at 100, the percentage of points allocated to the elements in the formula will quantify the recreation potential of a forest recreation area (Gülez, 1990, p. 134).

Table1. Formula Items and the Scores

Symbol	Meaning	Maximum Score (Weight Score of the Item)
P	Landscape Value	35
i	Climate Value	25
U	Accessibility	20
RK	Recreational Convenience	20
OSE	Negative Factors	0 (Min.-10)
%RP	Recreational Potential	100

Source: Gülez, 1990, p.134

In order to facilitate the calculation of elements in the method, Gülez (1990, pp. 134-138) devised a "Forest Recreation Potential Evaluation Form" (ORPDF) that also illustrates the comprehensive scores that can be attained for each element within a given recreation area. The following section explains the elements and scoring system employed in this method.

The most crucial element in assessing the recreational potential of a given area is its landscape value (L). Accordingly, the landscape value is accorded the highest ranking in the evaluation, with a weight of 35%. The evaluation form details the characteristics that must be considered when calculating the landscape value and the highest scores that can be attained.

The "C" element, designated as the Climate Value, is acknowledged as having a considerable influence on recreational activities. Consequently, it has been determined that this element should be assigned a weight of 25% in the evaluation process. The primary climatic factors, including temperature, precipitation, sunshine and windiness, have been assigned specific weights based on their impact on recreational activities. The evaluation form outlines the elements to be considered in calculating the climate value and the maximum achievable scores.

For the temperature value, the mean temperatu-

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res of the summer months (June, July, and August), when recreational activities are more prevalent, have been considered. The average temperature for optimal recreational activities in summer is assumed to be 25°C. Accordingly, 10 points have been allocated, with 1 point for temperatures between 16°C and 34°C, and intermediate values for other temperatures.

In consideration of the detrimental impact of precipitation on recreational activities, areas with total precipitation during the summer months (June, July, and August) of 50 mm or less are given an 8-point score, with scores decreasing as precipitation amount increases.

In evaluating the Sunshine value, the clarity of the weather is taken into account, with 0 representing clear skies and 10 representing cloudy skies. Intermediate values have been assigned to represent varying degrees of cloudiness. A value of five points is assigned for clear skies, with a corresponding decrease in score as cloudiness increases.

Concerning the windiness value, it is hypothesized that the presence or absence of wind has a marginal impact on general recreational activities. However, in certain activities, such as windsurfing, paragliding, and kitesurfing, windiness is a desirable attribute. Consequently, a score of one has been allocated to regions with an average wind speed of 1–3 m/s during the summer months (June, July, and August), while a score of two has been assigned to locations where the average wind speed is less than 1 m/s.

The accessibility value, represented by the letter "A", is a key factor in determining the recreational potential of a given location. It is important to note that the accessibility of a place is a significant determinant of site's suitability for recreational activities. The suitability of a location depends on the extent to which the public can benefits from it and access it without significant transportation issues. Concequently, the accessibility element has been incorporated into the recreation evaluation method with a weight of 20%. The evaluation form outlines the elements considered in calculating the accessibility value and the maximum attainable scores.

The "RC" element, or Recreational Convenience Value, considers the contribution of existing recreational facilities to the potential for forest recreation. Therefore, it has been deemed appropriate to prioritize the assessment of recreational facilities, with a weight of 20%. The evaluation form outlines the elements to be considered in determining the recreational convenience value and the maximum achievable scores.

When evaluating the recreational potential of a given location, it is essential to consider the presence of negative factors. This is reflected in the "NE" Negative Factors Value. The optimal scenario would involve the absence of negative factors, resulting in

a score of zero for negative points. However, it is assumed that negative factors can be assigned a score of up to-10. These scores are incorporated into the evaluation as negative values, which are subsequently deducted from the total score. The evaluation form details the characteristics to be considered in calculating the negative factors value and the maximum applicable scores.

In the evaluation formula for recreation potential, elements other than climate value may be determined by the individual evaluating the area under consideration. The scoring system employed in the Recreation Evaluation Form is designed to assist the evaluator, based on field observations, in determining the forest recreation potential in a relatively short period of time. In order to obtain the climate value following the specified method, data from the nearest meteorological station must be utilised (Gülez, 1990, p. 138).

Based on the results obtained from the method prepared by Gülez (1990, p.139), the following evaluation method is suggested (Table 2);

Table 2. Classification of Landscape Value

Forest recreation potential	Value
Very low	Below 30%
Low	30%-45%
Moderate	46%-60%
High	61%-75%
Very high	Above 75%

Source: Gülez (1990)

In this method, which is designed to determine the potential for forest recreation, natural elements (landscape value and climate value) are assigned a total weight of 60%, while cultural elements (accessibility and recreational convenience) are represented with a total weight of 40%. It is emphasized that the method allows for the appropriate weighting of both natural and cultural elements, while also accounting for negative factors (Gülez, 1990, p. 139).

The aim of this evaluation is to determine the forest recreation potential of Termessos National Park, located 34 km northwest of Antalya. The park lies between 36° 55' 24" and 37° 02' 30" north latitudes and 30° 03' 12" and 30° 31' 30" east longitudes, spanning the districts of Korkuteli, Döşemealtı, and Konyaaltı within Antalya's administrative region. Designated as a national park in 1970, Termessos National Park covers 6,702 hectares and includes one of Turkey's best-preserved ancient cities, Termessos (Figure 1). The name 'Terme' is derived from the Luwi/Etruscan language, meaning 'Mountain Waist/Pass,' while 'Assa' means 'High Fortress,' combining

to form 'Termeassa,' or 'Fortress city on the mountain Waist' (Antalya Provincial Directorate of Culture and Tourism-APDCT (2024). Termessos National Park is home to a diverse range of biodiversity, featuring 680 plant species typical of the Mediterranean climate, including mastic tree (Pistacia terebinthus), wild olive (Olea europaea), sandalwood (Arbutus andrach), carob (Ceratonia siliqua), laurel (Laurus nobilis), and rosemary (Rosmarinus officinalis). Notably, 80 of these plant species (11.76%) are endemic to Turkey. Despite a gradual decline in their populations, several significant species continue to inhabit and reproduce in the park, including the fallow deer (Cervus dama), wild goat (Capra aegagrus), imperial eagle (Aquila heliaca), and lynx (Felis lynx). Out of the 456 bird species recorded in Turkey, 113 can be found in this national park (Çetinkaya, 2008). Moreover, the park features a "Nature School," which provides hands-on nature courses in partnership with the General Directorate of National Parks, Hunting and Wildlife, academic institutions, and TÜBİTAK (The Scientific and Technological Research Council of Turkey). Additionally, five trails have been established within Termessos National Park specifically for forest therapy.

Figure 1. Termessos National Park Access Plan
Source: Çetinkaya (2008)

The primary objective of the National Park is to preserve the ruins of the ancient city of Termessos, from which the park derives its name. Visitors can access the area through a network of pathways that begin at the parking lot, located 9 km from the park entrance and reachable by vehicle (Figure 2). Along these pathways, a total of 32 ruins have been identified (Çetinkaya, 2008). The pathways are named as follows: the pathway to the Yenice Valley Wall, the King's Road pathway, the Top Tepe-Karaman upward pathways, the Atbaşı upward pathway, the pathway leading to the Cemetery, the Geopolitical pathway, and the Villa pathway.
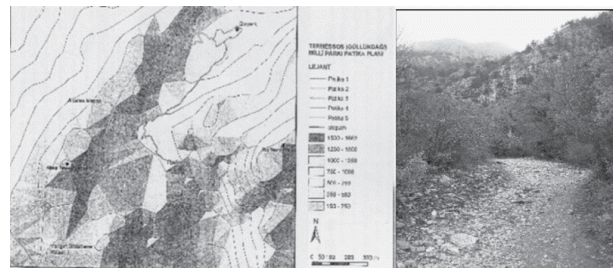
Figure 2. Termessos National Park Pathway Plan
Source: Çetinkaya (2008)

The Ministry of Agriculture and Forestry, the Directorate of Nature Conservation and National Parks, the Ministry of Culture and Tourism, and the Antalya Governorship, along with data from previous studies, were responsible for determining the scores for the criteria in the Forest-Based Recreation Potential Evaluation Form of Termessos National Park.

For the first criterion, Landscape Value, the scores were determined as follows: The park's area of 6,702 hectares received four points for its size. Eight points were given for vegetation, as the area is a national park. The presence of streams within the park earned one point. The park's gentle slopes and occasional flat areas were awarded three points, while panoramic views also received three points. The ancient city ruins, rich fauna, and diverse flora each garnered six points. The study area experiences a Mediterranean coastal climate with distinct seasons, characterized by dry, hot summers and mild, rainy winters. Since there is no meteorological station in Termessos National Park, the climate value was derived using data from the nearest meteorological station, as suggested by Gülez (1990, p.138). Consequently, records from the Antalya Central Meteorology Station were used. Data from the General Directorate of Meteorology (MGM, 2023) and previous studies by Yılmaz (2008, p. 26) and Uçar and Kokulu (2018, p. 8) were utilized to determine the scores for the Climate Value, the second criterion (Table 3).

Table 3. Climate Data for the Years 1930-2023 Determined from Antalya Meteorological Station

METEORO-LOGICAL ELEMENTS	MONTHS												
	January	February	March	April	May	June	July	August	September	October	November	December	Annual Average
Average Temperature (°C)	10.0	10.7	12,9	16.4	20.6	25.3	28.6	28.4	25,3	20.6	15.5	11.7	18.8

Average Highest Temperature (°C)	14.9	15.6	18,0	21.4	25,7	30.7	34.2	34,1	31.2	26.6	21.3	16.7	24.2
Average Lowest Temperature (°C)	6.0	6.4	8,1	11.3	15,3	19.7	22.8	22,8	19.5	15.3	10.9	7.7	13.8
Average Sunshine Duration (hours)	5.1	5.8	67	8.0	9,8	11.4	11.8	11,3	9.8	7.9	6.3	4.9	8.2
Average Number of Rainy Days	12.50	10.45	8.63	6.51	5,22	2,56	0.53	0,55	1.71	5.45	7.49	11.91	73.5
Average Total Rainfall (mm)	234.5	150.2	92.1	49.0	34.3	11.0	4.4	4.3	16.9	70.9	129.7	256.1	1053.4

The average summer temperature of 27.4°C was awarded seven points, total summer precipitation of 19.7 mm received eight points, average summer cloudiness of 1.4 was given five points, and the average summer wind speed of 2.44 earned one point (Table 4).

Table 4. Average Climate Data for Summer Months in Antalya Province

Climate Characteristics	June	July	August	Summer Months Averages and Totals
Temperature	25,3	28,6	28,4	27.43
Rainfall	11,0	4,4	4,3	19.7
Sunlight	1.7	1.3	1.2	1.4
Windiness	2.36	2.50	2.47	2.44

The Accessibility Value scores ranked third among the evaluation criteria, have been determined as follows: Termessos National Park is located on the Mediterranean coastline, 34 km from Antalya city center, 36 km from Konyaaltı district center, 18 km from Döşemealtı district center, and 46 km from Korkuteli district center. The park is 9 km from the D350/E87 Antalya-Denizli highway and 23 km from the D650 Antalya-Burdur highway, earning it 4 points. Due to its 34 km distance from Antalya city center, which had a population of 2,696,249 in 2023, the park received four points. Its 18 km distance from Döşemealtı district center, with a population of 86,109 in 2023 and a 28-minute car journey, earned it three points. The site was awarded two points for being inaccessible by taxi or private vehicle and zero points for the lack of alternative transportation facilities.

The Recreational Facilities Value scores, ranked fourth among the evaluation criteria, are as follows: Four points are awarded for having a regular and fixed picnic area. Three points are given for the provision of drinking and utility water facilities. No points are awarded for the absence of fixed overnight accommodation and for the camping area not being open to visitors. Two points are awarded for the availability of sufficient toilets and parking spaces to meet basic needs. One point is given for the presence of a sales kiosk. Two points are awarded for the presence of a continuous guard or officer, considering the park's national park status. Lastly, two points are awarded for facilities such as a children's play area and a mosque within the park.

The Negative Factors Value scores, ranked fifth among the evaluation criteria, are as follows: Zero points are awarded for air, noise, and water pollution due to the park's protected status. Zero points are given for the day-use area being safe and well-maintained, and zero points are assigned for the absence of quarries, construction sites, and factory remains within the protected area. The results pertaining to the aforementioned points and evaluations for Termessos National Park are presented in Table 5.

Table 5. Termessos National Park's Forest Interior Recreation Potential Evaluation Form

Items	Item Features	Rating
Landscape Value (L)	Area Size	4
	Vegetation	8
	Sea, Lake, Streams	1
	Surface Condition	3
	Visual Quality	3
	Other Features	6
Climate Value (C)	Temperature	7
	Rainfall	8
	Sunlight	5
	Windiness	1
Accessibility (A)	Touristic Importance of the Region	4
	City with a population of at least 100,000 in the region	4
	Time to reach (from a nearby city with a population of at least 5,000)	3
	Transportation (except taxi and private car)	2
	Other conveniences in transportation	0
Recreational Facilities	Picnic facilities	4
	Water availability	3
	Overnight facilities	0
	WCs	2
	Parking lot	2
	Gazianthro, sales kiosk	1
	Guard and attendants	2
	Other facilities	2
Negative Factors	Air Pollution	0
	Lack of Security	0
	Water Pollution	0
	Lack of Maintenance	0
	Noise	0
	Other Negative Factors	0
Total Score or Forest Recreation Potential (%)		75

Source: Prepared by the authors according to the method of Gülez (1990)

When the characteristics of Termessos National Park are evaluated using the criteria from the Forest Recreation Potential Assessment Form developed by Gülez (1990), the forest recreation potential of the area is determined to be 75%. As shown in the value assessment table, this indicates a notably high level of forest recreation potential. Specifically, the landscape value of Termessos National Park is 25%, the climate value is 21%, the accessibility value is 13%, the recreational facilities value is 16%, and the negative factors value is 0%.

The park's proximity to Antalya province, its tourism

potential, its forest resources, and the presence of designated pathways make it an ideal location for implementing activities similar to those conducted by Song et al. (2017) for forest therapy in Japan. Incorporating the observation of endemic flora and fauna into a forest therapy program could enhance the experience. Additionally, Antalya's tourism potential offers opportunities for both tourists and local residents to participate in forest therapy activities.

Discussion

Forest therapy, also known as shinrin-yoku or forest bathing, is increasingly recognized for its significant benefits to mental and physical health. This practice involves immersing oneself in a forest environment and engaging all five senses to foster a deep connection with nature. Research has shown that forest therapy can reduce stress levels, lower blood pressure, and improve mood by decreasing cortisol levels and promoting relaxation. Additionally, it enhances cognitive function and creativity by providing a break from the constant stimuli of urban life. The natural environment also boosts the immune system through exposure to phytoncides, which are antimicrobial compounds released by trees. Overall, forest therapy offers a holistic approach to well-being, emphasizing the therapeutic potential of natural environments in enhancing human health and quality of life.

The objective of this study was to examine the recreational potential of Termessos National Park, located in Antalya, one of Turkey's most prominent tourist destinations known for its opportunities for forest therapy. Based on extensive research, on-site observations, and evaluations, the landscape value of Termessos National Park has been determined to be 25 points. This score reflects the park's natural beauty, scenic views, and overall aesthetic appeal. The climate value, assessed at 23 points, indicates favorable weather conditions that enhance the park's attractiveness and usability throughout the year. Accessibility, an important factor for visitors, received a score of 13 points, taking into account the ease of reaching the park, the quality of transportation links, and the availability of facilities for people with disabilities. The recreational facilities within the park have been rated at 15 points, highlighting the presence of amenities such as picnic areas, walking trails, and playgrounds that cater to a variety of recreational activities. Additionally, the negative factors were evaluated at 0 points. These scores lead to the conclusion that the recreation potential value of Termessos National Park is 75%. This high score indicates that the park is predominantly utilized by the local population for recreational activities and is well-suited to meet the recreational needs of its visitors. This high score underscores the park's suitability for various recreational activities, including forest therapy, which can significantly enhance visitors'

mental and physical well-being. The park's natural beauty, diverse flora and fauna, and serene environment make it an ideal location for activities that promote relaxation, stress reduction, and overall health.

Previous studies have highlighted the positive effects of forest therapy, especially for disadvantaged groups (Berger & Tiry, 2012; Bor, 2018; Dolling et al., 2017; Kil et al., 2023; Kim et al., 2015; Lee et al., 2017; Lyu et al., 2019; Rosa et al., 2021; Song et al., 2017). These studies have shown that forest therapy can be particularly beneficial for individuals facing various challenges, such as mental health issues, physical disabilities, and social isolation. By providing a natural and calming environment, forest therapy helps these individuals experience a sense of peace and rejuvenation, which can be difficult to achieve in urban settings.

The aim of this study was to evaluate the recreational potential of Termessos National Park within the framework of nature-based activities. The findings concluded that Termessos National Park, with its high recreational capacity, should be further utilized by actively promoting its therapeutic potential. Additionally, promoting forest therapy to tourists in popular destinations could boost tourism revenues and enhance the country's reputation as a health tourism destination. By highlighting the unique benefits of forest therapy, Termessos National Park can attract a diverse range of visitors, including those seeking relaxation, adventure, and improved well-being. The park's rich biodiversity, historical significance, and well-maintained facilities make it an ideal location for both locals and tourists to engage in various recreational activities. It should also be done from a managerial perspective;

• It is recommended that a Therapy Experience Center be established within the nature park so that studies on forest therapy can be carried out more systematically.

• It is thought that a camping area should be established so that visitors to the nature park can stay in a close vicinity or that guesthouses should be encouraged in the surrounding villages.

• In order for visitors to the nature park to be informed about the area and to know why it is a protected area, it is thought that an information brochure or information boards containing flora, fauna, cultural heritage, endemic plants etc. belonging to the nature park are needed. It is thought that it would be appropriate for the information brochures to be prepared visually and audibly or to be narrated by a field guide so that they can be inclusive of everyone.

• It is thought that a Forest Information and Education Center, Applied Woodworking Courses or Forest Museum can be established for both visitors and the local people to be more aware. It is also thought that local products, herbal products or wood products should be sold in order to develop

the local people economically.

• It is stated that biogenic volatile organic compounds in forest air, some of which function as anti-inflammatory, antitumor, antidepressant, antimicrobial, antiviral and sedative agents. In the forest where studies on terpenes were conducted in Serbia; α-cadinol and spathulenol, which are defined as antiviral, antitumor, antimicrobial and immunomodulatory agents, were detected (Zoric, et al., 2022: 1-2). It is recommended that a similar study be conducted in Termesos National Park to identify the types of terpenes in the forest.

The absence of a study in the literature investigating the applicability of Forest Therapy to a specific destination shows the theoretical contribution of the research to the field. In addition, using a lot of resources in the international literature and presenting ideas within the scope of national parks for the evaluation of forest recreation areas by scoring using the Gülez (1991) method emphasizes the existence of a theoretical method for the determination of open area recreation centers. Evaluating the research only at the Gülez scale and working on a single national park constitute the limitations of the research.In addition, similar national parks can be built throughout Antalya as a future academic study and can be used at different scales for recreational areas other than the Gülez (1990) scale. Conducting research on guests using similar national parks for recreational purposes will also contribute to the literature.

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Nonnative Pre-Service EFL Teachers' Perceptions of Native and Non-Native English-Speaking Teachers: an Exploration in Turkish Contexts

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Abstract

This mixed-methods study delves into the perceptions of Turkish EFL Pre-service Teachers regarding native English-speaking teachers (NESTs) and non-native English-speaking teachers (NNESTs) and explores the potential impact of being an NNEST on their future teaching practices. In order to identify their perceptions, a questionnaire was conducted with 41 participants and the data were analyzed via descriptive statistics. In the qualitative part, open-ended questions were directed to the participants to elucidate how they think being NNEST might impact their future teaching practices. Responses were scrutinized using thematic analysis. The overall results indicated that Turkish EFL pre-service teachers recognized English can be taught effectively by both NESTs and NNESTs. They perceived having empathy in understanding students' needs and difficulties as the main advantage of being NNEST while expressing concerns about potential disadvantages for their future practices such as nonnative pronunciation and language proficiency. On the other hand, being more self-confident and competent in using the English Language as well as teaching vocabulary, listening skills, and fluency better were the perceived main advantages of NESTs. Having a shared mother tongue with the students was considered both an advantage and a disadvantage.

Keywords: Native English-Speaking Teachers (Nests), Non-Native English-Speaking Teachers (Nnests), Pre-Service Teachers, English Language Teaching, Teacher Perceptions.

JEL Codes: I21, I23, I29

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Introduction

The debate over the respective roles of non-native English-speaking teachers (NNESTs) and native English-speaking teachers (NESTs) in language education has escalated dramatically in recent decades as the internationalization of education is growing more and more popular each day. An ongoing debate regarding the effectiveness of being native and non-native has been reflected in language education since the 1990s. Selvi (2011, p. 187) indicates that this kind of unprofessional differentiation between NESTs and NNESTs has a very high possibility of causing "negative consequences for their teacher persona, self-esteem, and thus their in-class performance".

As one of the pioneers addressing the issue in the language teaching and learning contexts, Medgyes (1992) indicates that although NESTs and NNESTs use different directions, both can be equally successful in the profession. He emphasizes that we should avoid unprofessional differentiations yet acknowledge the distinctions between NESTs and NNESTs. Instead, we should investigate more to normalize the differences assessing the strengths and weaknesses of each. He calls this kind of action something liberal, which is a necessary attitude in addressing this NEST and NNEST comparison issue.

Due to the ongoing discussion regarding NEST and NNEST, it is apparent that there is a gap in the research related to the impacts of this nativelikeness issue on pre-service NNESTs' future teaching practices. The literature indeed mostly pays attention to only the perceptions related to NESTs and NNESTs. Therefore, the lack in the related literature should be addressed with research investigating pre-service EFL teachers' perceptions towards their future teaching practices to gain a better understanding of what language teachers and prospective teachers think about NESTs and NNESTs as Moussu (2018a) suggests. This could lead to a contribution to the foreign language education field in bringing out the perceptions as well as making NESTs, NNEST, their students, readers, and authorities as well as curriculum developers realize these perceptions and take actions accordingly.

Review of Literature

The Dichotomy of NESTs and NNESTs

The globalization of the world gave rise to the use of English as a lingua franca after World War II and has led to the need for teaching and learning the English language at early stages of life. As a result, there appear to be more non-native speakers of English than native ones around the world (Moussu, 2018a). In connection with this, as more English Language teachers are needed, the question of the better teacher comes to the surface. Although new percep-

tions tend not to allow demotivating discrimination between teachers based on their nativity, the dichotomy still exists even in hiring practices of teachers seeing the natives as superior (Moussu, 2018a). This native speakerism in English Language Teaching (ELT) is related to the assumption that native speakers are better language teachers due to their linguistic and cultural expertise (Matsuda, 2018). Phillipson (1992) first called this idea of the superiority of the native speakers "the native speaker fallacy," which was later termed by Selvi (2014, p. 589) as "the non-native speaker fallacy." The discussion on native speakerism has been going on since the 1990s with a very clear-cut differentiation between NESTs and NNESTs. In this respect, Medgyes (1994, as cited in Medgyes, 2001, p. 434) proposes the following four assumptions:

1. NESTs and non-NESTs differ in terms of their language proficiency.

2. They differ in terms of their teaching behavior.

3. The discrepancy in language proficiency accounts for most of the differences found in their teaching behavior.

4. They can be equally good teachers on their own terms.

Now that globalization and internationalization increase each day, the assumptions of Medgyes (1994) gain support. For instance, Faez (2018, p. 2) claims that "the native/non-native dichotomy is oversimplified and problematic, as it does not capture the diverse linguistic identities that exist in today's globalized world." In addition, Floris and Renandya (2020) proclaim that this fallacy may threaten the power of pedagogical education and professional skills of EFL (English as a Foreign Language) teachers. Looking into NESTs and NNESTs in the TESOL programs, Moussu (2018a) points out that authorities at certain MA TESOL programs in North American universities forbid non-native English speakers from taking part in the practicum due to concerns related to their accent, fluency, communication skills, pragmatic knowledge and cultural awareness. They are allowed to teach at low levels from time to time. Being NNESTs, their abilities are questioned right away. In the long run, as this lack of experience and opportunity may affect their performance and self-confidence, inclusion is necessary. According to Bayyurt (2018, p. 2), perceiving a native speaker as the superior English language instructor undermines NNEST inclusivity and creates inequity, which "involves seeing NESTs and NNESTs as one group whose members need equal treatment and understanding from the others in their professional and personal lives rather than marginalization of one group in favor of the other." Indeed, as Farrell (2015) points out, we shouldn't waste time thinking and discussing who the better teacher is and constantly promoting separation. Ins-

tead, we should focus on what competencies should be promoted.

More recently, Selvi (2025) re-evaluates Peter Medgyes' (1992) article on the worthiness of native vs. non-native English-speaking teachers (NESTs vs. non-NESTs) and presents a reappraisal of the spark that Medgyes initiated for the dichotomy. Accordingly, the stereotype of a "(non-native) speaker" was challenged by Medgyes' work on language teacher identity, which advocated for a more inclusive approach. His research questioned the use of "NESTs" and "non-NESTs" as a metric for evaluating a teacher's worth. On the surface, Medgyes' initial assertion that it is illogical to favor "NESTs" over "non-NESTs" (or vice versa) when evaluating a teacher's "worthiness" as a language user or educator was corroborated by thirty years of research. According to Selvi (2025), on a deeper level, nevertheless, Medgyes's work forced us to consider the assumptions that underlie the hierarchical dichotomy of (non) nativeness, pushing us to move beyond this binary paradigm. Selvi adds that TESOL practitioners are now urged to embrace the complexity, hybridity, and fluidity that come with identity negotiations by using a self-reflexive approach. In order to do this, Selvi suggests that we must become more conscious of our contextually dominating positionalities and the complicity they bring with normative ideologies such as "native speaker saviorism." He says that Medgyes' work continues to have an impact on how we see language teachers, even in light of the controversial nature of the terminology and acronyms. Furthermore, he emphasizes that in order to solve concerns of equality and prejudice in TESOL, it is imperative that we move beyond simplistic classifications and that we cannot rely solely on the transformative spark that Medgyes' has been carrying on his shoulders by himself for years.

Considering the EFL classrooms, it is apparent that teachers have their strengths and weaknesses and ways of teaching. In a way, they bring their unique abilities to their classrooms (Medgyes, 2001; Moussu, 2018b). In general, considering their unique features, NESTs are seen as representing the real culture of the language as well as having natural self-confidence and intuition in teaching. At the same time, according to Moussu, (2018b, p. 3) NNESTs are renowned for "their knowledge of grammar and language structure in general, as well as for their resilience, resources, patience, kindness, dedication, enthusiasm, multicultural awareness, and sense of commitment."

In particular, NNESTs usually see themselves as empathizing better with their students and being better role models because they have been in the same shoes as their students and have experienced similar challenges. This shared experience can be a motivator for their students (Madkur, 2017). Moussu (2018b) claims that the familiarity of NNESTs with the backgrounds of the students and understanding the educational values as well as the students' needs provide an advantage in addressing and understanding their difficulties while learning a foreign language. On the other hand, NESTs consider themselves to be modern, relaxed, and fun with the knowledge of culture and with their accent, which gives them the advantage of teaching pronunciation more effectively. However, Moussou (2018b) also claims that NNESTs have a more familiar accent, which allows students to understand easily.

All in all, in today's world where English is an international language, being dependent on the norms related to native speakerism no longer makes sense. According to Bayyurt (2018, p. 2), if this model of discrimination keeps existing, NNESTs will "perceive themselves as incompetent users of English who do not belong to the English-speaking world." Recognition of the differences and inclusion of NNESTs instead of sticking to the dichotomy is very important. For this to happen and in order not to destroy their self-confidence and self-worth and to prevent the possible feeling of professional inferiority, the value of NNESTs should be promoted (Floris & Renandya, 2020). What seems to be important here is being a good and competent EFL teacher regardless of nativism and without any feeling of inferiority. It is important that teachers empower themselves by breaking the dichotomy, acknowledging their strengths and weaknesses, and making efforts in order to be more effective English language teachers (Faez, 2018). This inclusion according to Moussu (2018a, p. 4), begins with more research looking deeper into the variety of different NEST and NNEST contexts as they possibly create "a better understanding of language teaching and help prepare and support both native and non-native speakers of English to be successful ESL/EFL teachers, ultimately putting an end to discrimination based on patterns of unfair oversimplifications."

Research Related to NESTs and NNESTs

The perceptions about NESTs and NNESTs were studied in various contexts. Students' perceptions were explored in a study with 300 students taught by 6 NESTs and 6 NNESTs in a Chinese context. Zheng (2019) found that having standard pronunciation, knowing the Western culture, and communicating with students in the target language were considered advantages of NESTs; whereas, being aware of the difficulties and needs of students and systematic teaching were the advantages of NNESTs. In addition, even though half of the students pointed out their dissatisfaction with their current oral English lessons with NESTs, many of them said that they would still choose a NEST for those lessons if they were given a chance. Walkinshaw and Duong (2012)

conducted a study with students who were 3rd year English majors at a public university in Vietnamese contexts. Their study's findings demonstrated that rather than valuing native-speakerness, the students gave importance to teacher qualities such as being familiar with the local culture and understanding students' needs, being friendly and enthusiastic, having teaching experience, as well as conducting interesting lessons. The only quality that was singled out was pronunciation and this was seen as being learned better from NESTs.

In consideration of perceptions of in-service teachers, Ma (2012) collected data from 53 NNESTs in Hong Kong and found that the participant teachers regarded NNESTs as powerful in terms of pedagogy but weak linguistically whereas the NESTs were considered as the opposite. In addition, an interesting finding was that using L1 was regarded as both a strength and weakness of NNESTs as it both motivated the students and caused teachers to lose control.

Tajeddin and Adeh (2016) conducted a study with both NESTs and NNESTs from the UK, the US, Türkiye, and Iran and found that NNESTs considered NESTs to have better speaking proficiency, pronunciation, and self-confidence. On the other hand, NESTs regarded NNESTs as having sound knowledge of teaching methodology. A salient finding of the study was that NESTs rejected the idea of NESTs being superior to NNESTs more than NNESTs did. As a result, the researchers indicated that this could be due to the already established dichotomy in ELT, which seems to impact NNESTs' self-confidence.

Furthermore, in the Lebanese context, Hadla (2013) in his questionnaire study, looked into the perceptions of students and teachers related to native and non-native English language teachers with the following categorization: Perceptions about the definition of the labels NESTs and NNESTs; Overall learning with NESTs and NNESTs; Perceived strength and weaknesses of NESTs and NNESTs; Classroom behavior and responsibility. The outcome demonstrated that NESTs were thought to be skilled in instructing oral skills and making efficient use of a variety of resources. However, NNESTs were perceived to be proficient at teaching grammar as well as culture with a higher level of empathy.

In addition to the research conducted in local contexts, Dewaele and Leung (2022) implemented cross-sectional research including 376 NNEST participants from all over the world. The study's findings demonstrated that NNESTs' language skills are a crucial component of their learning environment and it affects their attitudes, motivation, and well-being. The teachers with higher language proficiency levels were reported to be happier and more motivated in their classrooms.

Apart from the views of students and in-service te-

achers, pre-service teachers' views on NESTs and NNESTs were also investigated. In a study in the Turkish context, by investigating the perceptions of preservice teachers enrolled in an ELT program regarding native and non-native English language teachers, Boyraz et al. (2018) found that the participant preservice teachers considered NESTs as being better at teaching fluency and pronunciation as well as teaching listening skills. The authors suggested that language teacher education programs should help NNEST teacher candidates develop their self-perceptions. Similar results were also found in the study conducted by Varol and Bayyurt (2017). That is, the participants who were ELT majors perceived NESTs to be better at teaching speaking, pronunciation, and culture while considering NNESTs to be better at understanding the difficulties of students' learning and having greater subject-matter knowledge. One of the salient findings was that the seniors in the study tended to put much more emphasis on the necessity of having a native-like accent than the freshmen.

A further study by Gurkan and Yuksel (2012) had pre-service teachers evaluate the contributions of their three native and seven non-native instructors and found that none of the parties was found superior to the other. The participants indicated that the teachers had their own strengths. For example, they considered NESTs better in speech and in representing the target culture as well as being more creative and informal. On the other hand, they found NNESTs to be better at teaching explicit knowledge of grammar, having more empathy as well as being more knowledgeable in teaching methodologies and strategies.

Apart from the views of students and teachers, the views of recruiters were also investigated. In a recent study, Kiczkowiak (2020) determined factors that might influence recruiters' preferences to hire NESTs in various countries around the world. He established that the majority of recruiters regarded language proficiency, teaching qualifications and experience, and performance during interviews as major recruitment criteria. Yet, for almost half of them, being a NEST was still a prominent criterion. Also, comparing his results with similar earlier studies, Kiczkowiak concluded that recruiters' attitudes towards hiring NNESTs are more positive suggesting that the criterion to be a NEST is less prominent.

In conclusion, research related to NESTs and NNESTs both in Turkish and in other contexts establishes that there are certain features attributed to NESTs and NNESTs and both are perceived to be valuable in teaching English. Although various studies in different contexts have investigated the perceptions of EFL learners, pre- and in-service EFL teachers, and recruiters on NESTs and NNESTs, it is apparent that no study explored how prospective NNESTs perce-

ive being a NNEST will impact their future teaching practices, specifically in Turkish contexts. The present research dwells on pre-service EFL teachers' perceptions regarding NESTs and NNESTs and it is expected to fill the gap by allowing the participants to reflect on how being a NNEST might impact their future teaching practices.

The Present Study

By following the research of Hadla (2013), which draws attention to the importance of the perceptions related to NESTs and NNESTs, the present study aimed to analyze prospective EFL teacher perceptions focusing on dimensions concerning "Overall learning with NESTs and NNESTs", "Perceived strengths and weaknesses of NESTs and NNESTs", and "Classroom behavior and responsibility". This study also explored how pre-service EFL teachers think being NNESTs might affect their future teaching practices. The subsequent research questions served as the study's focus:

1.   What are Turkish pre-service EFL teachers' perceptions of NESTs and NNESTs?

2.   Is there a difference in the perception of pre-service EFL teachers who had a NEST and those who had a NNEST?

3.   How do pre-service EFL teachers think being a NNEST will affect their future teaching?

Methodology

Participants and Setting

In this study, the participants were 41 pre-service EFL teachers studying at the ELT program of a state University in Türkiye where pre-service teachers are trained to become EFL teachers. Participants were chosen with convenience sampling, which refers to a sample that includes participants who are available, ready, and willing to participate (Given, 2008). Participants were informed about the content of the study and that their responses would be used for academic purposes. Participants received assurance that their identities would remain confidential. 41 pre-service EFL teachers voluntarily participated in the study. Their ages ranged between 17 and 26. 27 of the participants were female and 14 were male. Among them, 8 were freshmen, 6 were sophomores, 9 were juniors, and 18 were senior students, which enabled to obtain a diverse range of perceptions across various academic years. The diversity of participants is believed to add to the validity. 18 of the participants had taken a course from a NEST teacher while 23 of them had not.

The study was conducted in full compliance with the ethical guidelines outlined by the Committee on Publication Ethics (COPE). All research procedures adhered to COPE's principles of integrity, transpa-

rency, and ethical conduct in scholarly publishing. Informed consent was obtained from the participants and the responses were anonymized to protect confidentiality. Participation was voluntary, and respondents had the right to withdraw from the study at any time without any consequences.

Research Tools

The design of this study was mixed-method, combining qualitative and quantitative data for a richer understanding and presenting comprehensive results following the steps instructed by Creswell and Plano Clark (2018).

As the main instrument of this study, the questionnaire created by Hadla (2013) that determines perceptions regarding NESTs and NNESTs was implemented to explore the perceptions of the pre-service EFL teachers regarding being NESTs and NNESTs. The initial section of the questionnaire comprised four questions to gather participants' demographic information. Information on gender, age, and year of study were collected to provide a general overview, but these factors were not analyzed as variables. The primary focus in the demographic data was whether the participants had been taught by a native teacher or not. The second section of the questionnaire comprised 24 five-point Likert-type questions on overall learning with NESTs and NNESTs; perceived strengths and weaknesses of NESTs and NNESTs; and classroom behavior and responsibility. The consent of the participants was taken at the beginning of the questionnaire and those who agreed with the terms and conditions participated in the study voluntarily. All 41 participants gave their consent to participate in the study. In order to determine how being a NNEST might affect their future teaching practices, participants were posed two follow-up, open-ended questions at the end of the questionnaire requiring their thoughts on the possible advantages and disadvantages of being NNESTs in their future classroom teaching practices. The reliability of the questionnaire was originally verified by Hadla (2013) in his study. In addition to this, in the present study, expert opinion was sought on the appropriateness of the questionnaire for the purpose of the study as well as the structure and content of the open-ended questions.

Data Collection Procedure and Analysis

In order to collect the quantitative data for this study, the questionnaire followed by two open-ended questions, was distributed through a digital platform via Google Forms. To answer the first two research questions, the questionnaire results were analyzed quantitatively. Descriptive statistics were employed and statistical analyses were carried out for each Likert-type question by computing the mean and standard deviation. An independent samples t-test

was conducted to examine whether there were significant differences between participants with and without experience with NESTs. The assumptions of normality were checked using the Shapiro-Wilk test, confirming that the data were normally distributed (p > .05). Statistical significance was determined at a threshold of p < .05, ensuring a robust interpretation of the results. Effect sizes were calculated to assess the practical significance of the observed differences, providing additional depth to the statistical analysis.

Participants' responses to the open-ended questions were analyzed using thematic coding following the six-phase approach proposed by Braun and Clarke (2017). This process included data familiarization, initial code generation, theme identification, theme review, theme definition, and final reporting. Themes were identified considering common patterns, and consistency was ensured by intercoder reliability checks conducted by an additional researcher.

Following their independent analysis, the quantitative and qualitative data were combined for interpretation. Recurrent and non-recurrent units and categories were defined from the answers. After the initial data analysis, assistance from another researcher from the field was obtained in coding and determining the accuracy of themes drawn from them. Lastly, the outcomes of the questionnaire and the content analysis were contrasted, and the findings were revealed and discussed.

Findings

Pre-service EFL teachers' perceptions of NESTs and NNESTs

Regarding the initial research question, the perceptions of the participants on NESTs and NNESTs were analyzed through descriptive statistics. To analyze and compare the answers that the participants gave in the questionnaire, the means of each item under the three subdimensions of the questionnaire were calculated. The first analysis, shown in Table 1, illustrates the perceptions of the participants related to overall learning with NESTs and NNESTs.

Table 1. Descriptive Statistics on the Overall Learning with NESTs and NNESTs

	N	M	SD
1. I will develop better grammatical skills when I am taught by a NEST than when I am taught by a NNEST.	41	2.98	1.172
2. I will learn more vocabulary words when I am taught by a NEST than when I am taught by a NNEST.	41	3.85	1.108
3. My pronunciation will improve better when I am taught by a NEST than when I am taught by a NNEST.	41	4.54	.674
4. My listening skills will improve better when I am taught by a NEST than when I am taught by a NNEST.	41	4.00	1.183
5. I will develop better reading skills when I am taught by a NEST than when I am taught by a NNEST.	41	2.73	1.225
6. I will become a more fluent speaker when I am taught by a NEST than when I am taught by a NNEST.	41	4.02	1.012
7. I will become a better writer of English when I am taught by a NEST than when I am taught by a NNEST.	41	2.71	1.188
8. I will learn better about different cultures when I am taught by a NEST than when I am taught by a NNEST.	41	4.22	.988
9. In my opinion, native English speakers make the best English language teachers.	41	2.27	1.184
10. I can learn English just as well from a NEST as I can from a NNEST.	41	3.90	.995

Note. 5 strongly agree, 4 agree, 3 neither agree nor disagree, 2 disagree, 1 strongly disagree

The results revealed that the participants mostly agreed on the items of the overall learning with NESTs and NNESTs. In particular, as can be seen in the means of Item 3 (M=4.54) and Item 8 (M=4.22), it can be said that the participants strongly agreed on the possibility of improving pronunciation and learning about different cultures when taught by NESTs. Especially Item 3, related to improving pronunciation,

stands with the highest mean (M=4.54) implying a high agreement with this statement. In addition, the participants expressed agreement on improving fluency (Item 6, M=4.02), improving listening skills (Item 4, M=4), and learning more vocabulary (Item 2, M=3.85) when taught by a NEST. Overall, participants agreed on learning English equally well from both a NEST and a NNEST (Item 10, M=3.90). Item 10 here appears to be noteworthy as participants seem to agree that a NEST and a NNEST can teach English equally well. This finding is also supported by item 9 (M=2.27), which is related to whether

NESTs are the best English teachers and is the only item that the participants highly disagree with. The participants were neutral in deciding whether they could develop grammar (Item 1, M=2.98), reading (Item 5, M=2.73), and writing skills (Item 7, M=2.71) better with a NEST.

Apart from the views related to overall learning with NESTs and NNESTs, the next part of the questionnaire was related to the perceived strengths and weaknesses of NESTs and NNESTs, and the results are given below in Table 2.

Table 2. Descriptive Statistics on Perceived Strengths and Weaknesses of NESTs and NNESTs

	N	M	SD
11. A NEST helps his/her students develop more positive attitudes towards learning English than a NNEST.	41	2.78	1.235
12. A NNEST who speaks the students' first language is more capable of predicting students' difficulties in learning the English language.	41	4.32	.850
13. A NNEST who speaks the students' first language shows more empathy to the needs of his or her students in learning the English language.	41	4.07	.848
14. A NNEST provides a better learner model to his/her students than a NEST does.	41	3.20	1.145
15. The NEST has higher self-confidence using the English language than the NNEST.	41	3.44	1.184
16. The accent of the NEST makes him/her a better English language teacher than the NNEST.	41	2.34	1.257
17. The NNEST who speaks the students' first language (L1) is more knowledgeable of the students' culture than the NEST.	41	3.83	1.022
18. A NEST is more competent in using the English language than a NNEST.	41	3.41	1.024
19. A NNEST can provide students with more information about the English language.	41	2.68	1.105
10. I can learn English just as well from a NEST as I can from a NNEST.	41	3.90	.995

Note. 5 strongly agree, 4 agree, 3 neither agree nor disagree, 2 disagree, 1 strongly disagree

Concerning the perceived strengths and weaknesses of NESTs and NNESTs, Table 2 demonstrates that the participants strongly agreed on item 12 (M=4.32), which indicated that a NNEST is better at predicting the difficulties of the students in learning English. This item attracts notice as its mean was high while the standard deviation was low, which means that the participants' ideas were not scattered in the answers; the majority agreed with this statement. Furthermore, the participants agreed that a NNEST shows more empathy for students' needs (Item 13, M=4.07), and has a higher cultural knowledge (Item 17, M=3.83); whereas, a NEST is more self-confident (Item 15, M= 3.44) and competent in using the English Language (Item 18, M=3.41).

Moreover, as is seen in the means of Items 11 (M=2.78), 14 (M=3.20), and 19 (M=2.68), the central tendency of the participants towards deciding whether a NEST is better at developing positive attitudes, being a better role model than a NNEST and whether a NNESTs is better at providing more information about the language in the classroom was neutral. Participants seem to have a neutral stance on these issues. Last of all, considering the mean of Item 16 (M=2.34), the participants disagreed that the accent of a NEST is the indicative factor that makes the NEST the best English teacher.

Finally, concerning classroom behavior and responsibility of NESTs and NNESTs, results in Table 3 illustrated that participants disagreed on the items in this dimension.

Table 3. Descriptive Statistics on Classroom Behavior and Responsibilities

	N	M	SD
20. A NEST prepares his or her lesson more carefully than a NNEST does.	41	1.90	1.044
21. A NEST is a better teacher than a NNEST because he or she does not use the students' first language in class.	41	2.39	1.339
22. A NEST is stricter in class than a NNEST.	41	2.27	1.096
23. A NEST uses a variety of materials in the classroom more than a NNEST does.	41	1.80	.928
24. A NNEST is more exam-oriented than a NEST.	41	2.90	1.446

Note. 5 strongly agree, 4 agree, 3 neither agree nor disagree, 2 disagree, 1 strongly disagree

As can be seen in Table 3, participants strongly disagreed that a NEST uses various materials in a classroom more than a NNEST does (Item 23, M=1.80). Moreover, they also disagreed that a NEST is more careful in planning a lesson (Item 20, M=1.90); and, that a NEST is stricter in a classroom environment (Item 22, M=2.27). Lastly, Items 21 (M=2.39) and 24 (M=2.90) indicate the participants either had a neutral stance or disagreed whether or not speaking the first language of the students is an advantage for a NEST and whether or not a NNEST is more exam-oriented in the classroom.

To address the study's second research question, the impact of the participants' interactions with a native teacher on their perceptions of NESTs and NNESTs was examined. Accordingly, the results revealed that 18 of the participants had taken a course from a NEST while 23 of them had not. In order to find out if there was a difference between the groups with and without native teacher experience in terms of their perceptions, their scores on the perception questionnaire were compared. As one of the groups consisted of less than 20 participants, a Shapiro-Wilk test was run on the data. The results of the Shapiro-Wilk yielded that the data met the assumption of normality W(18) = .952, and W(23) = .930 for the group with a native teacher interaction experience and the group without native teacher interaction experience respectively (p>.05). Therefore, an independent samples t-test was computed to compare these two groups. The mean scores, standard deviation values, and t-test results are presented in Table 4.

Table 4. Means, Standard Deviations, and T-test Results for the Groups

	N	M	SD	t	df	p
Native teacher experience	18	76.4	14.321	-.052	39	.95
No native teacher experience	23	76.6	11.15			

As Table 4 demonstrates the findings revealed that there is no statistically significant difference between the group with a NEST experience (M= 76.4, SD= 14.321) and the group without a NNEST experience (M=76.6, SD= 11.15) in terms of their perceptions on NEST and NNEST teachers (t (39) =-.052 with p>.05). It can be inferred from these findings that taking language courses from native teachers does not impact students' perceptions significantly.

Pre-service EFL teachers' perceptions of their future teaching practices as NNESTs

The participants' answers to the two open-ended questions were examined in light of the third research question, which asked about their future self-perceptions as NNESTs. The questions were presented in Turkish, the participants' native language. After conducting a thematic analysis, select excerpts were translated into English and verified by an academic

in the field. In that process, themes were identified. Recurrent themes drawn from the codes were then shown in tables and then supported with extracts. In the first question, the participants were asked whether they think being a NNEST would have any advantages in their future teaching practices. Table 5 illustrates the findings:

Table 5. The Perceived Advantages of Being a NNEST (N41)

Theme	Definition	N	Sample Excerpt
Empathy	Empathizing difficulties students experience during the language learning process	23	"I will be able to understand what language stages my students are going through. Because I went through the same stages when I was a student." (Participant 4)
Shared mother tongue	Speaking the mother tongue of the learners	12	"It will definitely have an advantage because if my students are not at a level to explain their problems in English, then I can listen to them in Turkish and try to solve the problem in the best way possible." (Participant 37)

As Table 5 demonstrates, participants' responses revealed that empathy and shared mother tongue were the most common themes regarded as the advantages of being a NNEST. In connection with empathy, the participants tended to mention the advantage of understanding difficulties students faced in language learning owing to the same educational and cultural backgrounds, and experiences. Accordingly, more than half of the participants (N23) mentioned understanding the difficulties students experience and students' needs as their advantage in their future classroom environment. The extract from the answer of the following participant also exemplifies this:

"They (NNESTs) can continue their teaching by empathizing with students more at times when students have difficulties while learning. By understanding their shortcomings and mistakes, they can be better at giving positive feedback." (Participant 13)

Some of the participants even mentioned that this could result in being a good role model to the students and enable them to respond to students' nee-

ds. This can be noticed in the statement that follows by Participant Number 12:

"Since I have experience with the problems my students will encounter, I can be a better role model and offer solutions."

In addition to empathy, the second most often mentioned advantage by the participants (N12) was related to the Turkish Language as a shared mother tongue of the students and the teacher. Accordingly, using the students' native language, when necessary might be very advantageous and this bilingual nature of the classroom would make the students more comfortable and make the teacher more reachable. In this sense, Participant 26 made the following comment:

"I can prevent false information that will become fossilized by explaining in their mother tongue where my students do not understand English."

In the second open-ended question, the participants were asked whether they thought being a NNEST would have any disadvantage in their future classroom practices. The most recurrent themes are presented in Table 6.

Table 6: The Perceived Disadvantages of Being a NNEST (N41)

Theme	Definition	N	Sample Excerpt
Pronunciation	Having native-like pronunciation	16	"I think I will be insufficient for my students in teaching pronunciation as mine will not be native-like." (Participant 26)
Shared mother tongue	Speaking the mother tongue of the learners	9	"The tendency of teachers to use the target language less can be a disadvantage of having a shared mother tongue because students can get used to it when they respond in Turkish in class and this may affect their language improvement." (Participant 4)

Language proficiency	Being proficient in the target language	4	*"I will tend to try to improve my English constantly in case my students may approach me with prejudice." (Participant 14)*

Participants' responses revealed that pronunciation (N16), shared mother tongue (N9), and language proficiency (N4) were common themes regarded as the disadvantages of being a NNEST. In addition, several participants (N12) appeared to perceive no disadvantages of being NNESTs in their future classrooms.

Firstly, as can be seen in Table 6., considering pronunciation, participants mentioned pronunciation as a potential disadvantage, which can also be seen in the following extract:

> "The way I use words and my pronunciation will be much different from a native teacher because mine won't be as good as the natives' pronunciation." (Participant 16)

Concerning pronunciation, some participants specifically tended to mention 'accent' as a disadvantage and believed that they wouldn't be able to be efficient in teaching accents to their students because they lack a native-kind accent:

> "I may not be helpful about accent, but I should also emphasize here that the important thing is to be able to communicate correctly." (Participant 12)

> "The possibility of not meeting the expectations of the students in terms of accent worries me." (Participant 41)

Secondly, participants considered shared mother tongue as another disadvantage. One of the participants indicated that

> "The possibility of completely disabling English may be a disadvantage when the class needs explanations in Turkish. Because I fear that I will get used to using Turkish as an easy way out." (Participant 15).

In addition to pronunciation and shared mother tongue, language proficiency was also mentioned as a disadvantage, appearing as the third theme. That is, compared to NESTs, they feared being judged by their students for their limited vocabulary and language proficiency. One of the eye-catching comments was formulated as follows:

> "Since language learning is a long and endless journey, I think I may have some deficiencies in language. Especially in certain academic subjects, it is necessary to know the terminology and content well. As a non-native teacher, these will be a disadvantage for me." (Participant 35)

Furthermore, while a few of them (N2) stated that they had no idea about the possible advantages of being NNEST, some participants (N4) expressed that being a NNEST would not offer opportunities in their future teaching practices. These participants did not provide further explanations or reasons and only shared the following:

> "I don't think it's a distinctive feature." (Participant 11)

> "I don't think it will provide any advantage or disadvantage." (Participant 24)

Lastly, 12 of the participants did not see any disadvantages of being NNEST in their classrooms as depicted in this comment:

> "I don't think being a NNEST will have any disadvantage." (Participant 7)

Other than pronunciation, the need for mother-tongue use, and language proficiency, the participants did not perceive any disadvantages of being NNEST in their future practices.

Discussion

The present study explored the perceptions of Turkish pre-service EFL teachers regarding NESTs and NNESTs and examined how being an NNEST might impact their future teaching practices. The findings contribute to the ongoing discussion in ELT by reinforcing prior literature while offering insights specific to the Turkish context.

The study revealed that pre-service EFL teachers generally perceive both NESTs and NNESTs as capable of effectively teaching English. This aligns with Medgyes' (1992) assertion that NESTs and NNESTs differ in their teaching approaches yet can be equally successful. Participants acknowledged that NESTs have advantages in pronunciation, fluency, and cultural knowledge, while NNESTs are better at understanding students' difficulties, displaying empathy, and predicting language learning challenges. These findings are consistent with prior studies (e.g., Bayyurt, 2018; Boyraz et al., 2018; Copland et al., 2020; Dewaele & Leung, 2022; Gurkan & Yuksel, 2012; Hadla, 2013; Moussu, 2018a; Tajeddin & Adeh, 2016; Varol & Bayyurt, 2017; Zheng, 2019) that highlight the strengths of NNESTs in pedagogical skills and student engagement.

On the other hand, a significant finding was that students' prior experience with NESTs did not significantly affect their perceptions of NESTs and NNESTs. This result seems to be compatible with the claim of Farrell (2015), which is that it is not who you are but it is how you teach. This suggests that

exposure to NESTs does not necessarily reinforce the native-speaker fallacy, where native speakers are presumed to be superior teachers (Phillipson, 1992). Instead, it supports the idea that teacher effectiveness is based on a combination of skills rather than nativeness, as argued by Faez (2018), and Floris and Renandya (2020). In alignment with Walkinshaw and Duong (2012), and Kiczkowiak (2020) studies, the participants in this study seem to give importance to teacher qualities rather than being concerned with the native-speakerness issue.

Regarding the potential advantages of being an NNEST, the most frequently mentioned theme was empathy, followed by the ability to share the students' mother tongue. These opinions are in line with earlier studies (e.g. Madkur, 2017; Moussu, 2018b; Floris & Renandya, 2020), which highlight how NNESTs can relate to their students and provide individualized help because of their own experiences as language learners. A shared mother tongue was seen as a double-edged sword, nevertheless. Although it can help with explanation and communication, it can also result in an over-dependence on the local tongue, which could make it more difficult to use English in the classroom. The results are in compliance with the study in the Turkish context (Gurkan & Yuksel, 2012) in which the use of the learners' native language was found very useful in situations such as preventing difficulties in the target language. Studies like Ma (2012) and Hadla (2013) have already observed this contradiction, showing that L1 usage was both a strength and a weakness for NNESTs. Furthermore, in the related literature, it is apparent that empathy being considered as the advantage of NNESTs is found to be a salient theme of many studies in different EFL contexts (Boyraz et al., 2018; Gurkan & Yuksel, 2012; Varol & Bayyurt, 2017; Zheng, 2019).

Pronunciation was the most frequently mentioned drawback of having a NNEST, followed by worries about language ability. Similar to findings from research like Tajeddin & Adeh (2016), Zheng (2019), and Dewaele & Leung (2022), where NNESTs reported concerns about their speaking skills and self-confidence, many participants were afraid that their inability to pronounce words like native speakers would limit their usefulness. The reason might be because of their fear of negative evaluation, a term used by Horwitz et al. (1986), by their students due to their non-native accents. However, as much as they emphasize pronunciation, it seems that they prioritize intelligibility over native-like pronunciation, as also argued by Medgyes (1994). This is also consistent with the larger body of research on ELT teachers' identities and self-perception, which indicates that NNESTs may internalize linguistic fears as a result of the field's enduring native-speakerism (Copland, Mann, & Garton, 2020).

Overall, the findings support the claim that peda-gogical abilities, empathy, and adaptability—rather than nativeness—define a good EFL teacher. As stressed by Farrell (2015) and Bayyurt (2018), the field should place more emphasis on teacher development and inclusivity than on the binary distinction between NESTs and NNESTs. The study's findings corroborate those of other experts in the field who point to the necessity to prevent any dichotomy between NESTs and NNESTs, seeing one as superior to the other (Bayyurt 2018; Faez, 2018; Farrell, 2015; Floris & Renendya, 2020; Medgyes, 1992; Moussu, 2018b). At the end of the day, it is obvious that each teacher brings unique qualities and characteristics into the classroom. The results indicate that teacher education programs should reinforce NNESTs' strengths in pedagogical tactics and student support while addressing their concerns regarding pronunciation and competency through focused training in these areas. Encouraging a mindset shift away from the native-speaker fallacy could help NNESTs develop greater self-confidence and professional identity, an approach also recommended by Selvi (2025), who suggests that a post-binary perspective can lead to greater equity in TESOL. Promoting a mentality change away from the native-speaker fallacy may aid NNESTs in becoming more self-assured and establishing their professional identities.

To put it all up, this study adds to the body of literature by demonstrating that Turkish pre-service EFL teachers acknowledge the need for both NESTs and NNESTs, but they are also worried about how effective they will be as NNESTs in the future. The long-standing native/non-native divide can be broken down by addressing these issues in teacher education programs and promoting a more inclusive perspective on ELT, which will eventually benefit both educators and students.

Conclusion and Implications

This study examined Turkish pre-service EFL teachers' perceptions of NESTs and NNESTs, revealing that both groups are perceived to have unique strengths and weaknesses. NNESTs were praised for their empathy, common experiences, and capacity to comprehend students' challenges, whereas NESTs were linked to advantages in pronunciation, fluency, and cultural understanding. The study also showed that pre-service teachers' perceptions are not significantly changed by exposure to NESTs, supporting the notion that nativeness has no bearing on educational efficacy. In addition, having the same mother tongue as the students is seen both as an advantage and a disadvantage in this study. However, it was agreed that despite these differences, English can be learned well with both NESTs and NNEST.

The current study takes a significant step towards promoting an understanding of how being a NNEST may impact pre-service EFL teachers' future teac-

hing practices. The study's conclusions enhance the field of foreign language instruction by providing insights into how NNESTs envision their future practices as well as how they perceive the strengths and weaknesses of being NNEST in EFL contexts.

The findings of the investigation have a number of significant implications. First and foremost, NNEST professional development should be prioritized in teacher education programs by offering instruction that improves NNESTs' pronunciation and general language skills. By addressing these issues, NNESTs may gain self-assurance and dispel the myth of native speakers. Second, courses ought to promote an inclusive viewpoint that honors a variety of teaching philosophies and advances the notion that pedagogical expertise, not native-like competency, is what makes instruction effective. Lastly, in order to promote greater diversity in employment prospects, hiring practices and institutional attitudes should change to acknowledge the value that both NESTs and NNESTs provide to ELT.

Future research should further investigate the long-term impact of teacher education interventions on NNESTs' confidence and professional identity. Additionally, exploring students' perceptions of NNESTs and NESTs across different educational settings could provide a more comprehensive understanding of the dynamics within EFL classrooms. In doing this, additional instruments, such as interviews with teachers and observations in their classroom contexts could be incorporated to reveal richer insights. By addressing these issues, the ELT field can work towards a more inclusive and equitable teaching environment for all educators, regardless of their linguistic background.

Lastly, the findings ought to compel educators and authorities to take into account pre-service EFL teacher perceptions and how these beliefs would affect their future instruction, normalize the perceived differences, and take necessary actions in their teacher training programs instead of pretending that this issue does not exist. As Moussu (2018b) also suggests, there can be courses specifically designed for NESTs and NNESTs in teacher training programs to give them a voice and see their own qualities. This is important because as this study revealed, their perceptions affect how they see themselves teaching as NNESTs.

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A Qualitative Study of Perceptions of Privacy in Interpersonal Communication doi

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Abstract

BA review of extant literature on digital privacy reveals a paucity of attention to the nexus between privacy and interpersonal communication, particularly among university students. This study explores the evolution of students' interpersonal communication practices on Instagram, employing a phenomenological approach to examine privacy perceptions. The qualitative phenomenological method was selected to analyze individuals' subjective experiences and actions related to privacy in digital interactions. A notable limitation of the study is its focus on privacy perceptions within Instagram, rather than a broader analysis of digital privacy across social media platforms. The selection of Instagram as a subject of study was driven by its widespread use and emphasis on visual content, which was deemed relevant during the research period. The findings indicate that participants place significant importance on protecting their privacy, and while users tend to observe others on Instagram, they are more reluctant to share personal content. The study also reveals that Instagram blurs the boundaries between public and private spaces. Although participants acknowledge privacy as an individual responsibility, they show less concern for controlling others' posts, reflecting a one-sided perception of privacy. In conclusion, the impact of social media on privacy needs reconsideration at both the individual and societal levels. The continuous online presence on social media platforms challenges traditional privacy boundaries, leading to new dynamics in personal information sharing. This study underscores the necessity of reevaluating digital privacy in the evolving landscape of social media communication.

Keywords: Privacy, Perception of Privacy, Instagram, New Media.

JEL Codes: D83, L82, M14

Introduction

Privacy, a concept that has only recently gained widespread recognition, is among the fundamental rights and needs of individuals (DeBrabander, 2020: 75). The advent of the internet and the integration of digital communication technologies into our daily lives have led to a significant increase in the complexity and multidimensionality of this concept. These technologies, which have been adopted globally, have enabled the uncontrolled dissemination and storage of individuals' data, thereby necessitating a reevaluation of privacy from a digital perspective (Cady & McGregor, 2002: 8). The prominence of privacy as a significant issue in media and communication debates is indicative of the concept of digital privacy becoming one of the major concerns of the information age.

Petronio's Communication Privacy Management (CPM) Theory offers a significant framework for comprehending and examining the multifaceted nature of privacy (Petronio, 2013, 2002; Petronio et al., 2003). This theory posits that individuals formulate regulations to determine the recipients, timing, and extent of the disclosure of personal information. Through these regulations, privacy is not only safeguarded but also shared. Nevertheless, the rapid advancements in technology have led to the erosion of the applicability and effectiveness of these regulations. Digital platforms necessitate that individuals redefine the boundaries of privacy and question their capacity to manage these boundaries effectively.

Privacy is widely regarded as a fundamental human right in modern discourse, yet in today's digitalized world, perceptions of this right are contested. Petronio's theory analyzes individuals' views and strategies on privacy management to understand this construct, positing that privacy is a "dynamic process" and that individuals can change their privacy preferences depending on environmental factors and relational situations (2002). To illustrate this point, consider the use of social media platforms, where individuals can choose to make their personal information accessible to a broader audience, while also imposing constraints through rules and boundaries. However, it is important to note that these rules are susceptible to being violated by technological infrastructure and platform policies.

In this framework, privacy is shaped by individuals' need for autonomy and independence. However, the proliferation of digital technologies and the increase in the use of social media have created a change in the nature of privacy, thereby bringing the concept of social privacy to the forefront (Trepte & Masur, 2023: 26). Social privacy, therefore, can be defined as a concept encompassing the privacy boundaries of individuals in their social interactions, indicating that personal information has reached a dimension that is shared with wider social groups instead of remaining only between the individual and his/her immediate environment. Petronio's CPM theory emphasizes the importance of examining the rules and practices of individuals to understand this new understanding of privacy.

The objective of this study is to examine university students' perceptions of privacy and the impact of these perceptions on the management of personal information and interpersonal communication. The Internet and digital platforms have undoubtedly led to the development of multifaceted privacy rules. Research in the literature indicates that individuals employ complex strategies to manage privacy boundaries in the digital environment. However, the efficacy of these strategies and the manner in which individuals respond to privacy violations remain subjects of ongoing debate. The proliferation of social media and the uncontrolled circulation of digital data underscore the necessity for further research on how privacy is handled in both the individual and societal dimensions.

Background the Concept

The notion of privacy has assumed significant importance with the advent of the distinction between private and public spheres, as well as the mounting emphasis on the distinction between what ought to be divulged and what ought to be concealed. David Vincent contends that the extant literature on privacy, to a considerable extent, emerged in the aftermath of the September 11 attacks, and that the period preceding that can be characterized as the middle age of privacy (Vincent, 2022: 11). The legal and moral underpinnings of the concept have exerted a significant influence on its subsequent evolution. Prior to this period, the concept was predominantly intertwined with surveillance. However, following this date, developments in the field of communication have led to a surge in research and a shift in the focus of studies on the concept.

As digital technologies have become increasingly pervasive in the twenty-first century, there have been concomitant shifts in the prevailing discourse on privacy. The evolution of social media into an integral facet of modern life has led to a erosion of privacy norms. Following the revelations made by Edward Snowden, there was a significant impact on privacy (Bruder & Maharidge, 2020; Greenwald, 2014; Rosso et al., 2020; Vincent, 2022: 12). However, it became evident that private organizations were breaching personal privacy boundaries that were beyond the scope of state control. The self-secure nature of the system has rendered it nearly impossible to prevent these leaks of privacy (Amer & Noujaim, 2019; Barassi, 2020). Organizations such as Big Nine and Big Tech have accumulated data on various aspects of daily life, including internet search history, thermostat settings, biometric information, medical records,

and shopping habits (Webb, 2019). While numerous studies have elucidated the architecture of the system (Greenwald, 2021; Han, 2020a; Lenoir, 2023; O'Neil, 2020, 2022; Webb, 2019), the development of a solution to the problem has thus far been constrained to a theoretical framework (Rotenberg et al., 2015).

The Relationship Between Privacy and Identity

In the context of this study, privacy is defined as the protection and development of online identities created in digital spaces and the data associated with these identities. The blurring of the distinction between online identities, public and private space, has led to significant challenges in determining responsibility for the security and control of personal data. While identity is an important component of reputation, it is also the carrier of all digital footprints. Digital movements, such as searches, clicks, likes, and shares, are meticulously recorded, thereby initiating a novel paradigm of self-presentation policy. However, unresolved challenges persist, particularly concerning privacy and confidentiality, between institutions and users.

Draper's (2019) study examines the industry that has emerged in the name of user privacy over a twenty-year period in the context of the digital image in terms of services such as protection and reputation management. The study's findings indicate that, despite the substantial growth of this industry, it has yet to deliver on its promises. Notably, there are still significant gaps in data protection.

The prevailing notion of the intimate nature of private life, that is, the idea that it should not be regarded as an object, has been rendered moot by the advent of digital media (N. Liu, 2024; Y. Liu et al., 2024). The emergence of a new image society, fostered by digital media, has effectively challenged the prevailing concepts of intimacy and privacy. This transformation has been extensively studied by scholars in the field, with notable contributions coming from Kornbluh (2023), who examines late capitalism's influence on this shift. According to Kornbluh (2023), the rise of the new image society is driven by the pursuit of ego, and the policies of transparency in digital life have reshaped the concept of privacy, deconstructing it from its traditional form. Han (2020), a contemporary philosopher, posits that transparency is both an ideology and a neoliberal apparatus, emphasizing that communication, information, production, and speed are integral to this process as it transforms into information. He further contends that circumstances such as privacy and foreignness impede this transformation. To achieve a transparent and effective system, it is essential to address these challenges.

In the digital realm, the ego finds an opportunity to manifest itself more vigorously, thereby enabling ideology to establish a foothold. Conversely, transparency is accompanied by a comparable degree of vulnerability (Crary, 2015; Han, 2021; Kornbluh, 2023). This tenuous yet, in numerous respects, vital equilibrium has led to an increased focus on image and reputation management, thereby ushering in the post-privacy era. The ideology of post-privacy in social media, as articulated by Han (2020b: 17), demands the sacrifice of privacy in the name of transparency. The development of institutions that control ephemeral content in the digital sphere is believed to be pivotal in the near future, as it will enable the formation of a significant sector. The advent of services in 2009 in the USA, designed to enhance the social media presence of young individuals preparing for university, is regarded as a pivotal milestone in the actualization of this sector (Draper, 2019: 101). This exemplifies the significance of the point reached in terms of user privacy, thereby giving rise to a substantial predicament. This issue is not confined to university applications; rather, it is regarded as one of the most fundamental and straightforward illustrations, as substantiated by research studies. Employers' digital footprint research, whether conducted on current or prospective employees, compromises the privacy of an individual's digital identity. As Draper's study notes, politicians, athletes, and artists, who enjoy widespread public recognition, are also subject to this digital image manipulation.

In contemporary society, individuals experience a sense of contentment derived from their online self-disclosures, often characterized by a sense of self-satisfaction. Concurrently, the management of online identities has become increasingly challenging, and concomitant difficulties have emerged in the domain of interpersonal communication (Capurro et al., 2013; Durante, 2011).

Interpersonal Communication and Privacy

The advent of social networks has precipitated numerous advancements in communication skills. Concurrently, it has engendered the necessity for updates to interpersonal communication. The substitution of short messages with messaging and content delivery in various environments has profoundly transformed communication in the digital milieu. The emergent dynamics of communication have precipitated numerous updates in both the theoretical and practical domains. However, this paradigm shift has concomitantly given rise to novel challenges (Foucault Welles & González-Bailón, 2020).

Marwick (2023), an expert on privacy and privacy violations in social media, has observed that, in most cases, users do not experience discomfort as a result of these practices. In a separate study, the focus of

which was on persuasion processes in social media rather than privacy, the fact that users' data was presented to them by the system in the form of product advertisements was regarded as disturbing in a sense, yet useful in the sense that it facilitated the process (Durmuşahmet, 2021).

The notion that users are indifferent to the erosion of privacy in the digital realm or that discomfort does not manifest itself in a pure form has begun to evolve. Research that emphasizes the necessity for more precise determination of the limitations and freedom regarding user data control by systems, as well as the transition of a previously seen idea in real life regarding the acceptance of the private as private by users to the digital space, including a political dimension, is an important output.

In considering the implications of digital privacy in the context of contemporary issues, it is imperative to explore the intertwined themes of feminism, theories of power and inequality, information security, the prevention of manipulative content, and the protection of vulnerable groups. These themes have garnered significant attention and support from civil society in the realm of privacy (Marwick, 2023: 63). A predominant motivation underpinning this endeavor is the aspiration for privacy to be not merely a prerogative of those in vulnerable positions, but rather, to be meticulously crafted in a manner that ensures equitable participation in the digital realm by all individuals. This assertion is predicated on the recognition that social networks, which comprise a substantial and pervasive segment of the digital landscape, harbour the capacity to engender new forms of victimization or inequality.

As Vance Packard noted in The Naked Society, there is an encroachment on privacy in the digital realm, and the process of relinquishing privacy has been steadily rising since the 1960s, a period that marked the beginning of the decline of the concept of privacy (Vincent, 2022: 190). This observation underscores the necessity for increased research attention on the impact of privacy on interpersonal communication. The available options for users are largely confined to adjusting privacy settings and, in certain instances, implementing supplementary protective measures (Burgess et al., 2019: 473). A notable lacuna in the extant literature pertains to the user actions and perceptions in the context of interpersonal communication, a subject that has received scant scholarly attention.

Methodology

Aim of Research

Privacy, understood as the extent to which individuals can engage with each other on both physical and cognitive levels during interpersonal communication, is a two-way street. It not only protects an individual's self-esteem but also empowers them to establish boundaries in their social interactions (İder, 2019: 111). The advent of social media has significantly transformed this dynamic, leading to the dissolution of traditional boundaries. The digitisation of interpersonal communication in the physical, cognitive, and communicative domains has effectively eliminated the boundaries that once defined these interactions (Draper, 2019; Marwick, 2023; Rotenberg et al., 2015; Trepte & Masur, 2023).

In Petronio's Communication Privacy Management (CPM) Theory, the boundaries between individuals' "privacy" and "disclosure" are treated as a state of alternating openness and closedness (Watkins Allen et al., 2007: 176). This theory is based on the disclosure of the private and the protection of private life, managing the boundaries of privacy in the public-private sphere through communication (Petronio, 2013). CPM is a valuable theory with considerable power. CPM is a theory derived from and based on "communication". CPM is a theory of communication that helps us understand how and why we disclose and conceal private information. It has generated a wealth of research in numerous contexts across disciplines such as computer science, health, psychology, sociology, business and government. In communication, CPM has primarily been used by researchers in the fields of interpersonal, family and health communication. However, as in other disciplines, CPM can be used to understand privacy and disclosure in contexts such as healthcare, education, social media, business, economics and organisations. CPM's flexibility as a theory helps researchers to fully understand both the privacy-expression dialectic and its applicability to real-world problems. It is important to capture all the ways in which CPM can help understand how people manage private information and identify the boundaries between disclosure and secrets through the use of social media. The term 'sharing' was previously employed as a euphemism for disclosure, with the recipient of private information being regarded as a co-owner or shareholder of that information. Consequently, a mutual boundary is established around the information. CPM delineates the capacity to establish multiple layers of privacy boundaries around shared information. To illustrate this concept, one may consider the existence of bilateral privacy boundaries, wherein the information is shared exclusively between two parties; group privacy boundaries, which pertain to the sharing of information within a defined group; family privacy boundaries, relevant when information is shared within the confines of a family unit; institutional privacy boundaries, applicable when information is deemed proprietary and thus subject to specific regulations; and societal privacy boundaries, which encompass information that is safeguarded by Security.

The concept pertains to the manner in which indi-

viduals collectively own and oversee the management of private information, with the concomitant recognition that delineating privacy boundaries can engender a more intricate regulatory environment. The CPM perspective does not conceptualise disclosure as a unidirectional or simplistic form of communication. Instead, it acknowledges the reciprocal nature of private information disclosure, entailing a dynamic interaction between the discloser and the recipient. Consequently, the onus of co-managing the disclosure falls upon all recipients. Petronio (2013, 2002) contends that the coordination of boundaries is best achieved through the negotiation of privacy rules, facilitating simultaneous and effective management. The coordination of privacy boundaries employs three processes: privacy boundary linkages, private information co-ownership rights and privacy boundary permeability. Privacy boundary linkages denote alliances between a discloser and recipients (Petronio et al., 2003). As access to private information increases, boundaries become more permeable, with thinner boundaries representing greater openness and allowing for more effective flow of private information. In contrast, thicker boundaries represent less or no access, as is the case with secrets (Petronio, 2002).

CPM is a dynamic theory that is applied to the study of a range of interpersonal communication problems. Researchers utilising CPM have examined the following: (a) social media use (Child et al., 2012; Kanter et al., 2012), (b) stepfamily communication (Afifi, 2003), and (c) family interactions (Docan-Morgan, 2011). Turbulent conditions, such as privacy dilemmas and disruptions in disclosure processes, are important areas of research in interpersonal communication due to the intrinsically complex nature of privacy management within relational systems (Petronio & Jones, 2006). Studying the dimensions of disclosure and privacy with respect to social media offers a way to decipher the instability of human interaction, helping to understand the dynamics of relational systems (Afifi, 2003). The concept of relational dynamics is predicated on the notion of the extent to which individuals disclose or withhold information during the process of socialisation concerning privacy. Consequently, the notion of privacy is fundamentally about communication and is realised through communication. Petronio CPM asserts that individuals inherently require privacy and seek to regulate the dialectical tension between privacy and disclosure by establishing privacy rules. In principle, the boundaries of privacy oscillate between openness and closure, with the permission to observe information about oneself and to grant access to it demarcating the open boundary, and the information being private and access being obligatory demarcating the closed boundary (Watkins Allen et al., 2007: 176).The concept of privacy is subject to constant change and transformation in the era of new communication technologies.

It has been demonstrated that individuals' privacy preferences are subject to change, influenced not only by personal inclinations but also by the structural and relational characteristics of the environment (Özbay et al., 2011: 13). Concomitant with the necessity for individual privacy, confidentiality and data protection, it is acquiring international importance in social and economic terms due to the proliferation of global information and communication technology services and increasing traffic between countries. In this study, Petronio's Communication Privacy Management Theory was determined as a criterion for evaluating the effects of individuals' social media use on their perception of privacy in the dimension of interpersonal communication. This evaluation was conducted on the axis of new communication technologies in social media, with the aim of assessing the phenomenon of individual privacy and sharing.

Privacy and sharing are often considered to be opposing concepts; however, in the contemporary era they have become increasingly intertwined. The advent of new communication technologies has served to transform the boundaries of these phenomena, as these technologies have enabled the sharing of content independent of time and space (Ashworth & Free, 2006). The present study aims to shed light on the interpersonal communication dimension, and to understand how social media influences the blurred boundaries between private and public spheres, transforming daily life practices and reshaping values. It is argued that individuals often violate their privacy in order to engage with social media, and that the concept of being social is now inextricably linked to being active on social media. The study will contribute to the existing body of knowledge by providing a comprehensive overview of the current state of play.

No field study has been conducted on the privacy perceptions of Instagram user university students in Turkey in the context of interpersonal communication. In this case, while certain basic qualities such as human action, image production, communication, publicisation, private space and closed communication are being transformed into commodities, the extent to which this entire process is known by users becomes an important phenomenon that needs to be discussed (Capurro et al., 2013; Deng et al., 2011). In addition to the perception of privacy, the awareness of university students who are Instagram users in Turkey regarding the platform's role in their daily lives, their perception of public space, the relationship between the platform and privacy, the elements of the platform that contain threats to privacy, and the level of awareness about their perception of privacy in interpersonal communication can shape their usage practices.

Research Methodology

This research employs a phenomenological design, constituting a qualitative research method. Qualitative research is defined as an empirical research approach predicated on the collection of qualitative data at the most fundamental level (Christensen et al., 2015: 402). This design places emphasis on how individuals perceive a phenomenon, how they describe it, their feelings towards it, their judgments of it, and their discourse on it with others (Quinn Patton, 2014: 104). In essence, phenomenological studies are those which are based on people's experiences, perceptions, and interpretations of the world around them.

The present study examines the development of a perception process at the level of interpersonal communication within the scope of social media (Instagram) in the phenomenon of privacy. The study discusses how university students perceive the phenomenon of privacy, how they position privacy in their daily lives, whether social media poses a threat to privacy, and the effect of privacy on the interpersonal communication process based on Instagram.

Research Questions

In order to be analyzed within the scope of this study, the following sub-research questions were determined within the framework of the themes of "participants' perception of privacy and the issues they consider private," "participants' privacy perception and awareness of Instagram," "participants' awareness of Instagram use as a public and private space," "participants' perception of threat to privacy in Instagram use," and "participants' knowledge and perception of privacy in interpersonal communication in Instagram use":

•   Do Instagram users know the concept of privacy; which topics do participants consider private?

•   What information do participants share on Instagram?

•   Who do the participants follow on Instagram and who are they followed by?

•   What do the participants share on Instagram?

•   What do participants avoid sharing on Instagram?

•   Where do the participants see Instagram in the public-private sphere distinction?

•   Do participants see Instagram as a threat to privacy?

•   How do the participants position Instagram in interpersonal communication?

In the course of the research, conceptual saturation of the responses was reached upon the completion of 13 in-depth interviews. Within this framework, a total of 13 Instagram user university students, 7 male

and 6 female, between the ages of 18 and 23, were interviewed. The objective of conducting interviews with these individuals is to ascertain the prevalence of Instagram as the "favorite" social media platform among internet users aged 16-24, as indicated by data from We Are Social (2023).

Data Collection Technique

The research data were obtained through the implementation of a semi-structured interview form. This interview form is regarded as a method developed to ensure that all dimensions and questions related to the research problem are covered (Yıldırım, 2015). The semi-structured interview technique, a qualitative data collection method, was employed in this study. This technique facilitates the collection of rich data through open-ended inquiries (Özdemir, 2010: 326).

The objective of this study is to ascertain the impact of social media on an individual's perception of privacy. Distinct from extant literature on the subject, this study will be conducted on a sample of university students who utilize Instagram, thereby introducing a novel dimension to the research. It is anticipated that the study will contribute to the existing body of knowledge in this field, and the findings obtained will be evaluated in subsequent studies on the subject. The study was conducted from November 2023 to December 2023, and it employed interviews as the primary data collection method. The study's scope was confined to the specific research questions and participant responses. The "Digital in 2023" report, published by "We Are Social" (The Changing World of Digital in 2023, 2023) offer current global internet usage statistics and social media statistics. According to the report, 4.76 billion people use social media platforms. According to the 2023 report, the number of social media users in Turkey has reached 62.55 million, constituting 73.1% of the total population. Social media use in Turkey is particularly prevalent among younger demographics. The same report indicates that 30% of Instagram users are between the ages of 18 and 24, and 91.2% of the population utilizes social media. Consequently, the present study's population comprises university students within the specified age range, including those enrolled at Düzce University. The study's sample is composed of university students between the ages of 18 and 23 at this institution.

Non-probability sampling was utilized in the study. This sampling method is frequently employed in qualitative research studies. This sampling method is characterized by its non-probability, which arises from the selection of a sample that is contingent upon the researcher's personal knowledge of the population or the study's objectives (Marczyk et al., 2005).

Face-to-face interviews were conducted with the

subjects selected for the research study, and their thoughts on the subject under investigation were recorded during the interviews. The phenomenological interview process is predicated on communication and interaction. Prior to the initiation of the primary research process, pilot interviews were conducted with four individuals to assess the comprehensibility of the questions. Following the pilot interviews, no changes were deemed necessary in the research questions, and the main research process was initiated.

As the data to be collected by the field could not be predicted at the onset of the research, all participants who agreed to participate were contacted. It was observed that the responses reached conceptual saturation (Guest et al., 2006) when 13 people were interviewed in depth. In this framework, a total of 13 Instagram user university students (seven male and six female) between the ages of 18 and 23 were interviewed. The participants were numbered K1 through K13 for the purpose of coding. The study was deemed an ethical endeavor by the Düzce University Ethics Committee (approval number E-78187535-050.06-354878) on October 24, 2023.

The data obtained through interviews were evaluated through descriptive analysis, which involves the systematic description of data, followed by the explanation and interpretation of these descriptions, and the identification of conclusions through the examination of cause-effect relationships (Yıldırım & Şimşek, 2006: 116). Following the interviews, new themes emerged that expanded upon the initial themes identified prior to the research. The findings concerning university students' perceptions of privacy and social media use in interpersonal communication, as well as the conceptualization of privacy, were then defined and described in relation to these emergent themes.

Findings

Participants' Perception of Privacy

The perception of privacy among young people is elucidated in Table 1, which is organized under the sub-themes of "meaning of privacy" and "issues considered private."

Table 1. The Meaning of Privacy

The meaning of privacy	Personal, family and spatial circumstances
	Privacy
	Forbiddenness, forbidden to others
	Immunity
	Private life, private space
	Physical restraint
	Sexuality
	Covering the body

The participants' definitions of privacy primarily characterized it as conditions specific to the individual, family, and household. Additionally, they identified other meanings associated with the concept of privacy, including confidentiality, taboo, inviolability, private life, and private space.

P1 articulated privacy as "a person's private life," while P4 defined it as "the entrance to a person's private life." These participants further characterized privacy as secret, taboo, and worthy of protection. They underscored the individual's autonomy as the fundamental criterion for privacy, expressing that an individual should determine what information to keep private and protected.

P5 associated privacy with the family and household by stating that privacy is an area, home, or another place where people keep their personal or private information, and they emphasized the physical environment by mentioning that the act of sharing cannot be unlimited. In another definition, P7 emphasized the meaning of privacy in terms of sexuality and confidentiality by stating, "It is the closure of intimate areas and paying attention to this."

The participants' definitions of privacy were predominantly characterized by the "me" [private-subjective] dimension, with an emphasis on the personal, their own areas, their privacy, and their own prohibitions and protection. They perceived privacy as an area to be avoided and kept secret from others, yet they did not acknowledge a personal responsibility for the rights or privacy of others. The participants articulated that privacy constitutes a state of necessity and that the criterion for its determination is informed by the individual's consent. However, they appear to overlook the fact that they themselves are individuals who require protection on behalf of others. In this dimension, privacy is perceived as a unidirectional realm that exclusively concerns the self-protection of the individual.

Table 2. Matters Considered Intimate

Matters Considered Intimate	Family and home life
	Beliefs, views and opinions
	Physical characteristics
	Lifestyles and the way they dress
	Body exhibitionism

Among the issues considered private, the most frequently mentioned are family and home life, the interior of the household, beliefs, religious views and ideological thoughts, physical characteristics, lifestyles (eating and drinking culture), clothing and dressing. Apart from these, body exhibitionism is also among intimate issues. P7: "Intimate areas should be kept private, and it is important to be mindful of

this. No one should look at or touch these areas," emphasizing the inviolability of the body. P2 articulated that domestic environments are considered confidential and should not be disseminated to external parties, citing the potential for such disclosures to attract unwanted attention or even thieves. P2 further elucidated that privacy should be regarded as a form of security and protection, underscoring its significance in maintaining personal autonomy and well-being.

P6 evaluated privacy as "the necessity of dressing without exposing parts of the body that will attract attention," and stated that avoiding body exhibitionism is considered private. P12 expressed that privacy means "not revealing oneself, hiding the body," and expressed the covering of the body.

Social values and security concerns have been demonstrated to be effective in fostering the acceptance of family and home life as private spaces among participants. Even in the context of shared household dynamics, family matters are often regarded as private and are not typically discussed. This phenomenon is exemplified by the participants' responses to inquiries regarding their Instagram practices, including the content shared, the accounts they follow, and the accounts they allow to follow them. P3 articulated this sentiment, stating: "I exclusively follow individuals with whom I am acquainted and allow them to follow me. I am careful to ensure that my girlfriend is not included in any mutual acquaintances in my posts. The participants' family members are not privy to their romantic relationships, and it would be undesirable for them to discover such information. We have taken such measures independently." This statement underscores the role of social assumptions in shaping friendship relationships, irrespective of age. The prevailing social teachings and familial expectations shape the perception of the relationship between men and women, deeming it as clandestine rather than as a matter of personal volition.

Participants' Perception and Awareness of Privacy on Instagram

In the contemporary era, characterized by the pervasive utilization of social media, individuals have become increasingly inclined to disseminate their personal information on these digital platforms. This practice, whether deliberate or inadvertent, has given rise to an escalating number of violations of privacy. The paradigm shift in understanding the concept of connectivity, precipitated by social media, has transformed the individual user into a "mobile individual," characterized by their constant engagement with mobile devices. This transformation has profound implications for the protection of personal privacy, as it facilitates a paradigm shift in the understanding of connectivity, from a static individual

using a mobile device to a dynamic entity that is perpetually connected. Applications that offer services through smart mobile devices frequently request user location information, employ filtering features, and present updates with titles such as "experience" and "access." The content becomes the individual itself, and the measure of privacy is supplanted by the application's power, despite the perception of the individual's autonomy. The distinction between private and non-private becomes increasingly indistinct. Individuals express a preference for being followed and surveilled. This dynamic shift in perspective has led to a paradigm shift in the understanding of privacy, where it is no longer regarded as a protected entity, but rather as something that is exhibited by the individual (Çakır, 2015: 377–379).

The voluntary and consentful nature of social media use and the sharing of content on these platforms is a testament to this shift. However, the prevailing sentiment among individuals is that failure to engage with social media, or to share content on these platforms, can result in ostracism from their respective social circles. This perceived social pressure constitutes an invisible pressure that exerts a significant influence on users' behavior (Esen, 2018: 61). Consequently, the concept of privacy becomes detached from its original meaning, as it is no longer private, but rather publicized, emptied, and narrowed (Awad et al., 2023; Katz, 2022). As the scope of privacy diminishes, individuals find themselves with no private matters or spaces of their own.

Nissenbaum (2009: 65) identifies three categories of privacy issues in social media. The initial problem pertains to the disclosure of personal information. The second problem is when an individual shares information about another individual. The third issue pertains to the phenomenon of surveillance, characterized by the pervasive tendency for individuals to be monitored. The transformative effect of social media on privacy is characterized by a deepening of the individual's tendency to be monitored.

To assess participants' privacy perceptions and awareness of Instagram, a series of inquiries were posed, exploring the types of information shared on Instagram accounts, the followers and followings, and the content shared versus what is avoided.

In response to inquiries regarding the information disclosed on Instagram accounts, the nature of follows and follows, and the implementation of privacy settings, P12 stated, "I exclusively share my aspirations through my profile, recognizing that these aspirations are inherently unattainable through any form of capture. My dreams, as they are not documented in any form, cannot be accessed by external entities." P12 further emphasized the absence of data security on Instagram, perceiving it as a breach of privacy.

P3 stated that the information them share on their

Instagram profile includes a quote of interest, their preferred sports team, their place of origin, and the university they attend. They also mentioned following acquaintances and a few notable figures on Instagram, while allowing acquaintances to follow them. P3 further elaborated that they share their activities instantaneously, such as during vacations. They claim that they do not share intimate pictures or information about their family because they value their privacy. The subject acknowledges the public nature of the content shared on their profile and acknowledges that it is subject to scrutiny. However, the subject asserts that they do not have any privacy concerns. The emphasis on privacy as defined by the individual rather than by the individual's followers is a salient point in this discourse. The notion that privacy is contingent on bodily inviolability and that physical privacy ought to be reinforced by virtual privacy is also a point of emphasis. The sharing of intimate moments, such as special activities and vacations, is not regarded as a violation of privacy, provided that such content is shared exclusively among close-knit groups. This phenomenon can be linked to the prevalent norm of sharing content related to holidays, special activities, events, and other such occasions, which is commonly observed among individuals. This practice serves to normalize the sharing of personal information, thereby reducing the perceived significance of privacy.

The participants' assessments of privacy are predominantly relationship-based, with participants considering the information they include in their profile, the individuals they follow, and the emphasis they place on their own closeness, partnerships, values, and self-protection. These values are reflected in the statements participants make, which include friends, family, and relatives they know. According to these participants, others serve as the primary source of guidance regarding the content shared on Instagram and the types of content that are deemed inappropriate or undesirable. This platform is regarded as a space that ought to be shielded from the intrusions of others' thoughts, feelings, and observations. Nevertheless, individuals should maintain communication to the extent that they themselves permit. The concept of personal responsibility for the privacy of others and the rights and obligations related to sharing personal information remains unaddressed. The practice of monitoring and disseminating the personal lives and content of others is regarded as an inherent right, and the realization that one might be regarded as the "other" by others is often overlooked. In this context, the platform is regarded as a unidirectional space where the assessment of privacy is subjective and individualized.

How Instagram Use Affects Participants' Awareness of Privacy as Public and Private Space

The user's perception of social media as a public sphere for the formation of public opinion in social life (Habermas, 2023) or as a private space as the natural domain of the individual plays a decisive role in the perception and attitude toward privacy. With respect to the question of whether social media, specifically Instagram, is best regarded as a public or private domain, the majority of participants have concluded that it falls within the latter category. Participant 2 (P2), for instance, viewed Instagram as a private sphere, stating, "I see Instagram as a private space." "It is a private space. Individuals utilize it to share aspects of their personal lives and daily activities. It functions as a digital repository, akin to a personal diary, wherein individuals chronicle their daily activities. In essence, Instagram functions as a personal digital notebook, a repository where individuals chronicle their experiences and activities". P1 further elaborates on this perspective, stating, "Instagram is a private space in itself. Individuals share content that is inherently personal and reflective of their personal experiences. While direct observation does not support the notion of individuals sharing content on behalf of others, anecdotal evidence suggests a prevalent tendency for individuals to share content related to themselves". The participants' inclination to incorporate their social media profiles into their private spheres and assert ownership over them corroborates Petronio's (2010: 181) assertion that individuals perceive privacy as their personal domain, as if it were their own property.

Participant 8 (P8) further elaborates on this sentiment, stating, "Although Instagram appears to be a private space, it is, in essence, a platform where individuals expose their personal lives to a vast audience". This observation aligns with Bauman and Lyon's (2016) concept of fluid surveillance, emphasizing the dynamic nature of privacy in the digital age.

Five participants have positioned the participatory platform as both a public and a private space, a phenomenon that can be described as the blurring of boundaries due to the intertwining of public and private in certain historical periods (Berktay, 2015: 102). The blurring of boundaries blurs the boundaries of the concept, as social media platforms are accessible to everyone and each individual has the power to create their own content. P3: "It depends on the method you use. The private sphere encompasses the realm of personal information exchange and recreational activities, while the public sphere pertains to commercial or technological entities. P3 asserts that Instagram's categorization as either public or private is a simplistic approach, emphasizing the

ambiguity of boundaries between these spheres, a phenomenon that is also evident on social media platforms. The participant responses indicate a lack of consensus on the categorization of Instagram as either public or private. A novel finding of the study is the proposition that privacy, which is a concept often invoked in discussions about social media, can be used to position the relevant social media platform as a private space, despite its inclusion in the definition of a public space. This proposition underscores the originality of the study and emphasizes the need for further research in this area.

Participants' Perception of the Threat to Privacy Posed by Instagram Use

In the context of social media, users disseminate personal information and content. Given that the content in question pertains to the individual user, the relationship between social media and privacy assumes significance. The practice of users disseminating personal data for the purpose of maintaining an online presence on social media platforms has the potential to compromise their privacy.

Individuals often become engrossed in social media platforms, losing sight of the potential consequences. These individuals, enthralled by the allure of these platforms, embark on a journey to join digital communities, often relinquishing their personal privacy to reach others and navigate the uncharted terrain of social media, where traditional boundaries become blurred (Anık, 2019: 127).

A significant proportion of participants perceive Instagram as a potential threat to their privacy. Participants articulate their concerns, citing the prospect of disclosing personal information without consent, its potential sale to third parties, and its utilization for commercial endeavors. Participant 2 (P2) articulates their concerns by stating, "Using Instagram poses a threat to privacy. They contend that the platform's capabilities allow for the misuse of personal information at any point in time. There is a risk of information theft. The potential for artificial intelligence to manipulate facial features and voices is a cause for concern. I find it disconcerting to ponder the potential consequences of such technological advancements. The concerns regarding the privacy implications of these technologies were articulated, and the technologies were perceived as a negative reflection of technological advancements that jeopardize personal information. P2's perspective aligns with the assertion by Bauman and Lyon (2016: 57) that social media platforms engage in user surveillance and subsequently monetize user data through sales to third parties and institutions.

In addition to the participants who perceive Instagram as a threat to their privacy, there are also participants who do not perceive any threat to privacy from Instagram. Participant 5, who asserted that Instagram does not pose a threat to their privacy, stated the following: "On an individual basis, there is no inherent threat if the individual exercises discernment in determining what they wish to share and maintains vigilance in doing so. Ultimately, the decision of what to share or not is at the discretion of the individual user. When the decision is in my hands, there is nothing to reveal."

Participants who do not perceive Instagram as a threat to privacy attribute this to their own practices of making non-private posts. However, these participants failed to consider that the personal information provided during registration on these platforms and the digital footprints left during usage are processed and recorded by the platform. Consequently, it can be posited that the users of the platform are not cognizant of the perceived threat to their privacy.

Participants' Knowledge and Perception of Privacy in Interpersonal Communication in Instagram Use

The protection of privacy is vital for healthy communication between individuals in society. In this context, Instagram, as a platform that challenges traditional boundaries of privacy, is of particular interest. The platform's impact on communication is twofold: it both expands the scope of individual privacy and transforms the traditional interpersonal communication process into a more individualized experience.

A notable proportion of the participants regard Instagram's integration into interpersonal communication as a fundamental right. When Instagram is evaluated specifically as an interpersonal communication tool, almost all of the participants stated that they use the platform extensively in their daily lives. A subsequent evaluation of the findings reveals that Instagram is perceived as an effective interpersonal communication tool for interacting with others, a medium that facilitates daily activities and maintains personal schedules, and a platform that fosters a sense of well-being by enabling interaction with others, expanding one's social network, and exerting influence over others.

The interpersonal communication dimension of the effects of participants' Instagram use on their perception of privacy was evaluated on the basis of Petronio's Communication Privacy Management Theory. According to Petronio's "Communication Privacy Management Theory," individuals inherently require privacy and endeavor to regulate the dialectical tension between privacy and disclosure by establishing privacy rules. In this theoretical framework, the boundaries of privacy oscillate between openness and closedness. At the open border, individuals grant permission to disclose information about themselves and allow access. Conversely, at the closed boundary, information is regarded as priva-

te and access is not obligatory (Watkins Allen et al., 2007: 176). A collective affirmation emerged from all participants, underscoring the perceived necessity of privacy and its status as a fundamental requisite. They further delineated their access as being governed by a closed border. They further elaborated that the closed border in this context signifies the restriction of access to their account by external parties, a control that they manage through the implementation of hidden account settings.

When evaluating their experiences in relation to a negative or positive aspect of their interpersonal communication on Instagram, which they regarded as a tool for interpersonal interaction, the participants indicated that they engaged in digital actions consistent with their online daily activities and the circumstances they encountered.

P3: "I experienced a deterioration in my interpersonal communication. I published a post. This phenomenon is not without its nuances, however, as it is not without its positive and negative aspects. The positive aspect of this experience was the favorable response received from a family member. He extended his best wishes to the photograph I had shared, expressing his appreciation for it. Conversely, a friend expressed concern regarding the perceived lack of time spent with them, as compared to the time spent with a romantic partner. This prompted introspection regarding the necessity of allocating more attention to interpersonal communication and the act of sharing," he stated. In the context of interpersonal communication, them emphasized the primacy of the individual who disseminates information over the individual who merely spends time in the company of another. Them further elaborated on their personal value judgments and the intricacies of effective communication management.

P4 articulated the challenges she encountered in her interpersonal interactions and the subsequent solution she devised: "My friend tagged me in one of her posts. I did not share it because I did not look good. This act of non-participation led to feelings of resentment, as if I had failed to contribute to the memory of us together. She then proceeded to expound on the concept of privacy, emphasizing its role in interpersonal interactions and the expectations that arise from them. The statement also alludes to the societal influence of the "show" phenomenon, where individuals strive to present an idealized version of themselves, often at the expense of privacy. It is noteworthy that the concern over being perceived as the best, or looking good, supersedes concerns related to privacy violation.

P9: "The concept of interpersonal communication is not fully comprehensible due to its nature, which is not confined to a specific group but rather extends to the collective. The concept of interpersonal communication can be likened to a possession that belongs to the individual until it is disseminated, at which point it becomes the possession of all. It is important to maintain a sense of equanimity when confronted with divergent perspectives and to refrain from reacting with anger towards others. The participant's approach to interpersonal communication is characterized by a unique perspective, which they articulate as follows: "I find my own solution by thinking that if I share, I accept everything." This statement encapsulates the participant's philosophy regarding the disclosure of personal information, which they perceive as a fundamental aspect of interpersonal communication. It is noteworthy that the participant's approach to interpersonal communication diverges from the dynamics observed on social media platforms such as Instagram, where the emphasis is on the exhibition of personal content and the cultivation of a public image. The participant's statement aligns with Bauman and Lyon's (2013: 56) assertion that in the context of virtual intimacies, the emphasis shifts from intimacy to visibility, emphasizing the need to be exposed to a broad audience. This assertion aligns with Guy Debord's (1996) concept of the "society of spectacle," a term used to describe a modern society characterized by the pervasive circulation of images. The spectacle, in this sense, can be seen as a false sacrament for the masses, who, as a result of the symbolic meanings attributed to objects and images, find themselves ensnared in its spell. The display of privacy and interpersonal communication from one person to the public sphere rather than to each other is a reflection of this social understanding.

Result and Conclusion

For the lonely modern individual, media is one of the basic means to understand and make sense of the world in which he or she lives, to be aware of social issues, to connect with other people, to create one's own identity, to communicate, in other words, to exist (Özgül, 2012: 45–50). "We shape our tools and they in turn shape us" (McLuhan cited in Rigel, 2003: 25). This statement quoted from McLuhan is working faster today (Rigel, 2003). Instagram, which opened its doors to everyone in the world with updates and additional features soon after its inception, has made the entire world more connected in a short period of time. On the other hand, Instagram has changed the way people express themselves and communicate with others, bringing different communication practices to both online and offline interpersonal communication. People voluntarily offer themselves and their own information on Instagram, share more information about themselves in the process, and are more interested in what their friends share. While Instagram offers users more control over their privacy than many other social networking sites, the Instagram ecosystem creates a

form of communication that is oriented around seeing, showing, and being watched. It may seem like a positive situation that people come together in the Instagram environment and become more aware of and interact with each other. It is a good thing as long as it does not create a society-wide exhibitionism (invasion of privacy) or a "culture of peeping," as Niedzviecki (2010) mentions.

In contemporary society, individuals often forgo their privacy in exchange for socialization, community participation, identity construction, and a sense of security (Acquisti et al., 2008; Draper, 2019; Trepte & Masur, 2023). This phenomenon is referred to as the privacy dilemma or privacy paradox in the extant literature. The trade-off between the benefits, such as socialization, recognition, and acceptance, and the privacy loss is a central theme in this discussion. This paradox, or trade-off, can be explained by Petronio's (Petronio et al., 2003; Petronio, 2002; Petronio & Jones, 2006) theory of "communication privacy management." Individuals' privacy boundaries and levels of interpersonal communication can be influenced by their own understanding of communication and their own motivational tools.

Marwick (2023: 68) contends that, despite the plethora of studies addressing various methods of safeguarding privacy in the online realm, the prevailing deficiency in the field of privacy research pertains to the paucity of attention devoted to the comprehensive and contextual nature of privacy studies, as well as to the perceptual experiences of users concerning this concept. The advent of technology has precipitated a paradigm shift in human existence and the conceptualization of privacy. While a substantial body of research has examined the evolution of privacy in the context of social media, a dearth of studies has focused on the intricacies of privacy perceptions in interpersonal communication within the demographic of university students, often referred to as the young generation (Vincent, 2022: 190). A paucity of research has been observed on the impact of privacy on interpersonal communication. Users' actions are limited, except in cases where they take additional protective measures, such as adjusting privacy settings in digital spaces (Burgess et al., 2019: 473). A paucity of research has been observed in the field of interpersonal communication, particularly concerning the actions of users and their perception levels. Technological advancements have precipitated profound transformations in human life and the conception of privacy. While a substantial body of research has examined the concept of privacy and its evolution through social media, a dearth of studies has focused on the intricacies of interpersonal communication and privacy perception within the context of university students, who represent the younger generation.

Digital technologies, including but not limited to computers, smart devices, and the internet, have become an integral part of daily life. These technologies have a profound impact on various aspects of human behavior, including thinking, producing values, and developing behaviors concerning the individual, society, and the way they perceive these entities. As a byproduct of digital technologies, social media and the virtual social space it constructs have an impact on the perception of privacy that reflects the values of the society to which the individual belongs. Technology-based changes in privacy perceptions are particularly evident among young people. Consequently, research endeavors focused on privacy must consider the evolving nature of interpersonal communication within the context of social media usage.

The present study was conducted with the objective of examining the privacy perception of young university students who use Instagram, as well as their perceptions of the interpersonal communication effects of social media use. The interpersonal communication dimension of the effects of Instagram use on the perception of privacy was evaluated on the axis of Petronio's Communication Privacy Management Theory. According to Petronio's "Communication Privacy Management Theory," individuals inherently value privacy and endeavor to regulate the dialectical tension between privacy and disclosure by establishing privacy rules. In this theoretical framework, the boundaries of privacy oscillate between openness and closedness. At the open boundary, individuals grant permission to disclose information about themselves and to whom that information is disclosed. Conversely, at the closed boundary, information is regarded as private and access is not obligatory (Watkins Allen et al., 2007: 176). All participants indicated a need for privacy and its perceived necessity, emphasizing the implementation of a closed border access model. They further elaborated that the concept of a "closed border" in this context refers to the restriction of their account access to others, with the implementation of hidden account settings to manage this restriction. When evaluating their experiences in the context of a negative or positive aspect concerning their interpersonal communication on Instagram, which they regarded as a tool for interpersonal interaction, the participants indicated that they engaged in digital actions consistent with their online daily activities and the circumstances they encountered.

This study, conducted on a sample of single students between the ages of 18 and 23 enrolled at Düzce University, inquired about participants' perceptions of privacy and its intersection with interpersonal communication. The study revealed that participants employed privacy to safeguard personal informati-

on and activities, establishing a private sphere that encompasses individual and familial domains. The study delves into the concept of privacy, understood as a realm necessitating protection, within the context of interpersonal communication and Instagram. Instagram, an environment characterized by a prioritization of visual content and aesthetic standards, employs a service paradigm that encompasses connection, discovery, communication, and the delivery of customized advertising content. The participants reported a higher level of comfort in observing others on Instagram, while exhibiting a more reserved demeanor in their own posts. This perception of Instagram as a one-way observation tool is noteworthy. This perspective aligns with the predominant view in the extant literature that social media, a concept that has garnered significant attention in academic discourse, serves to obfuscate individuals' sense of privacy boundaries. This assertion is corroborated by the findings of the present study.

The initial contribution of the research to the extant literature is the conclusion that the participants are responsible for their own privacy and that they are not personally responsible for the content that others share without considering it private. In the context of privacy studies, it is generally accepted that the boundaries of privacy and intimacy are valid for the individual and for others. However, the research findings revealed a one-sided perception of this situation. A further contribution of the research is the observation that Instagram cannot be regarded exclusively as either a public or private space in the context of differentiating between these two dimensions. The evaluation of Instagram as both a public and private space for its intended use is shaped by the emphasis on privacy and the perception of the concept. The incessant connectivity facilitated by smartphones has emerged as a pivotal factor contributing to social media users' propensity to transgress privacy boundaries when disseminating personal information. This constant connectivity serves to blur the boundaries between privacy and transparency, thereby increasing the likelihood of information being shared or monitored.

In the context of social media, Instagram has emerged as a significant platform for individuals to share their personal content, aspirations, and sentiments. However, this practice is accompanied by a sense of pressure to gain acceptance from the platform's community. This dynamic has led to a shift in the traditional conception of privacy, transforming it from a private matter to a public exhibition. The prevalence of personal information sharing on Instagram has led to concerns regarding its impact on privacy. The platform's permissibility regarding the unauthorized dissemination of personal data to third parties, coupled with its utilization for commercial purposes, has further exacerbated these concerns.

The advent of social media platforms such as Instagram has profoundly impacted interpersonal communication dynamics, thereby raising concerns regarding the safeguarding of privacy and the establishment of a balanced exchange of information among individuals. Privacy can be conceptualized as a fundamental right, while communication can be regarded as a necessity. The present study is of particular significance as it delves into both Maslow's Hierarchy of Needs and the intricacies of privacy awareness, shedding light on its implications for interpersonal communication and communication practices. The balancing act between privacy and disclosure is not confined solely to close personal relationships; it is a universal challenge that permeates various aspects of human interaction. The present theory can be applied to address questions related to the decision-making process concerning the disclosure of information on social media and online social networks. It is recommended that the CPM be applied to other samples, employing a theoretical perspective that facilitates a more profound understanding of the types of information individuals disclose, the information they maintain private, and the manner in which private information is processed across different groups of people.

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Research Article

Overcoming the Counterproductive Workplace Behavior with the Power of Sustainable Leadership: The Role of Ethical Climate

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Abstract

In recent years, the impact of leadership approaches on employee behaviors and organizational processes has become a prominent topic in organizational behavior studies. This growing interest stems from rapid changes and increasing competition in the business world, which have highlighted the critical role of leaders in organizational performance. Additionally, in an era where ethical values are prioritized and employee well-being is directly linked to organizational success, understanding how leadership styles influence these factors has gained significant attention. This study investigates the role of ethical climate in the relationship between sustainable leadership and counterproductive work behaviors (CWB). Sustainable leadership is analyzed as the independent variable, CWB as the dependent variable, and ethical climate as the mediating variable. The population consists of white-collar employees in Istanbul, with data collected from 327 participants through convenience sampling. Analyses were performed, including validity and reliability tests, confirmatory factor analysis (CFA), correlation analysis, regression analysis, and mediation analysis. The results indicate that sustainable leadership positively impacts ethical climate and negatively affects CWB. Furthermore, ethical climate has a significant negative effect on CWB. Mediation analysis using Hayes Process Macro reveals that ethical climate partially mediates the relationship between sustainable leadership and CWB. These findings underscore the importance of fostering an ethical climate and implementing sustainable leadership practices to minimize counterproductive behaviors and enhance organizational well-being.

Keywords: Sustainable Leadership, Ethical Climate, Counterproductive Work Behavior.

JEL Codes: Q56, O15, M10, M12, D23

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Introduction

Since the emergence of the human relations approach to management, initiated by the Hawthorne studies, the field of management has witnessed increasing scholarly attention, toward exploring diverse leadership frameworks. These include situational leadership, transactional leadership, transformational leadership, distributed leadership, autocratic leadership, participatory leadership, ethical leadership, authentic leadership, responsible leadership, change leadership, and positive leadership, which aim to define leadership practices and examine the influence of leadership behaviors on employee outcomes and organizational performance (Hallinger & Suriyankietkaew, 2018). Among these frameworks, sustainable leadership has emerged as a pivotal concept, gaining prominence as an essential approach for achieving long-term organizational success in today's rapidly evolving and competitive business landscape. This growing interest is reflected in recent studies, which indicate an upward trend in publication and citation performance related to sustainability literature, underscoring its increasing global relevance and scholarly focus (Baysal & Yangil, 2023).

Sustainable leadership, as a distinct perspective, prioritizes stakeholder and societal well-being while creating enduring value through the integration and balance of economic, environmental, and social objectives (Avery & Bergsteiner, 2011). This approach departs from traditional leadership paradigms by emphasizing a person-centered perspective and a resource-based view. Its holistic nature not only underscores the interconnectedness of economic, social, and environmental priorities but also emphasizes the pressing need to address the complex challenges facing organizations through sustainable leadership strategies. Given the decisive influence of leadership behaviors on employee attitudes and actions, exploring the intersections of sustainable leadership with other organizational dynamics is vital for effectively preventing and managing counterproductive work behaviors (Hallinger & Suriyankietkaew, 2018).

Employees occasionally engage in behaviors that diminish, rather than contribute to, organizational value. These behaviors, collectively referred to as counterproductive work behaviors (CWBs), encompass a wide range of actions, from theft and abuse of sick leave to workplace violence, and are influenced by various circumstances (Ones & Dilchert, 2013). CWBs are broadly defined as intentional actions by employees that harm their organizations or colleagues. In the modern business landscape, where effectiveness and efficiency are paramount, CWBs present a significant challenge for organizations (Spector et al., 2006). These behaviors, which include absenteeism, workplace deviance, and sabotage, not only undermine organizational performance

but also erode trust among employees (Robinson & Bennett, 1995; Fox et al., 2001). The reasons behind CWBs are multifaceted, stemming from individual personality traits as well as organizational factors, such as leadership style, ethical culture, and perceptions of justice (Dalal, 2005; Ferris et al., 2009). Addressing the multidimensional nature of CWBs requires an in-depth examination of both individual characteristics and the organizational conditions that enable such behaviors. Within this framework, leadership style and ethical climate emerge as critical elements with the potential to mitigate or exacerbate these detrimental behaviors (Dalal, 2005; Martin & Cullen, 2006).

Similar to how the climate of a geographical region provides a general impression of that area—such as its weather, humidity, or vegetation—an organization's ethical climate offers employees a collective sense of its ethical standards and practices. Defined by Victor and Cullen (1988), ethical climate refers to employees' shared perceptions of what constitutes ethical behavior within their organization. Essentially, ethical climate is a component of organizational culture, and ethical climate theory suggests that an organization's ethical environment profoundly shapes employee attitudes and behaviors, including counterproductive work behaviors (CWBs). A strong ethical climate promotes fairness, accountability, and transparency, which collectively decrease the likelihood of workplace misconduct (Martin & Cullen, 2006). Although numerous studies have investigated the role of ethical climate in mitigating CWBs, the interaction between sustainable leadership and ethical climate in addressing these behaviors has received limited scholarly attention. This underexplored area highlights the need for a comprehensive perspective that examines how sustainable leadership, as a forward-looking approach, aligns with an organization's ethical climate to address counterproductive work behaviors effectively. Recognizing this gap, this study seeks to provide a deeper understanding by integrating these two concepts into a unified framework.

Theoretical contribution of this research uniquely contributes to the theoretical discourse on leadership by addressing the limited exploration of sustainable leadership's interaction with ethical climate. By framing sustainable leadership within the context of ethical climate, the study provides a novel perspective on how leadership practices can shape organizational culture and mitigate counterproductive work behaviors (CWBs). Unlike existing studies, this research bridges two critical areas—sustainable leadership and ethical climate—offering a unified framework that expands the boundaries of organizational behavior literature.

From a practical standpoint, the study emphasizes actionable strategies for leaders to adopt sustainab-

le practices that reinforce ethical climates. These insights are pivotal for reducing CWBs and enhancing organizational effectiveness. Leaders are provided with a framework to align their strategies with ethical principles, ensuring long-term success and resilience. This contribution becomes particularly relevant in navigating the challenges posed by remote work dynamics, diverse workforce expectations, and the increasing importance of social responsibility in business practices.

By doing so, it aims to expand the academic literature while offering practical insights for organizational leaders and researchers seeking to foster ethical and sustainable workplaces, particularly in light of recent challenges and transformations brought about by new working models driven by digitalization. Recent studies, such as KPMG's 2021 Global CEO Survey, reveal that leaders are increasingly leveraging digital tools to create people-centric workplaces, embedding environmental, social, and governance principles into their strategic frameworks. Moreover, research highlights how digitalization enables remote work and flexible organizational models, which require a redefinition of leadership paradigms to maintain employee engagement and productivity (PwC, 2021). These insights underscore the need for adaptive strategies that align with sustainable leadership principles in navigating the digital transformation of workplaces. These transformations have significantly reshaped the paradigms of leadership in the business world, underscoring the critical importance of ethical and sustainable approaches. According to KPMG's 2021 Global CEO Survey, which analyzed data from 1,325 CEOs across 11 major markets, contemporary leaders are increasingly prioritizing a people-centric future by embedding environmental, social, and governance principles into their strategic frameworks. This emphasis on sustainability aligns with the broader goals of fostering long-term organizational resilience and adaptability. Furthermore, PwC's COVID-19 and Leadership Insight report highlights the transformative effect of the pandemic on remote working models, emphasizing the necessity for leaders to redefine their methods of team interaction. Transparent communication and equitable decision-making processes have been identified as pivotal in not only enhancing employee motivation but also in cultivating a robust ethical climate that aligns with sustainable leadership principles. The insights from these reports significantly amplify the importance of this study by highlighting the urgent need for sustainable leadership frameworks that address contemporary organizational challenges. By integrating the strategic imperatives outlined in these reports, this research contributes to the academic and practical understanding of how leaders can adapt to evolving business environments while maintaining ethical integrity.

Conceptual Framework/Theory

Sustainable Leadership

As previously mentioned, the concept of sustainable leadership has evolved through diverse scholarly contributions, each offering distinct perspectives on its definition and scope. Among these contributions, Freeman's (1984) Stakeholder Theory stands out as a foundational element of sustainable leadership. Additionally, recent studies such as those by Jones et al. (2018) emphasize the evolving role of stakeholder theory in addressing global sustainability challenges, particularly in integrating diverse stakeholder needs into leadership practices. The theory asserts that organizations should consider the interests of all stakeholders—not just shareholders—in their decision-making processes. By incorporating stakeholder theory, the primary purpose of leadership has expanded beyond generating profit to include maximizing the expectations of all stakeholders and fostering a more inclusive and sustainable approach to leadership. In addition to stakeholder theory, Elkington's (1997) Triple Bottom Line framework has significantly shaped the sustainable leadership paradigm. This framework emphasizes that organizational success should be evaluated based on economic, social, and environmental performance. By encouraging leaders to adopt a more comprehensive perspective on organizational performance, the Triple Bottom Line framework aligns closely with the principles of sustainable leadership. Recent empirical findings by Wuest et al. (2021) emphasize the relevance of the Triple Bottom Line framework in smart manufacturing technologies. The study demonstrates how integrating economic, environmental, and social perspectives has led to measurable sustainability outcomes in the manufacturing sector. This research highlights the transformative potential of sustainability-oriented innovations and their alignment with organizational goals for long-term impact. Together, these theoretical contributions underscore the holistic and forward-thinking nature of sustainable leadership as a critical framework for addressing contemporary organizational challenges.

Another concept that has significantly contributed to the development of sustainable leadership, and closely aligns with its perspective, is responsible leadership, introduced by Maak and Pless (2006). This concept emphasizes the relational dimension of leadership, advocating for leaders who are accountable to a broad range of stakeholders and who incorporate ethical considerations into their decision-making processes. Further expanding on this concept, Pless and Maak (2011) highlight the importance of ethical decision-making and a commitment to sustainability as pathways to a sustainable future. They argue that sustainable leadership necessitates a compre-

hensive understanding of the interconnectedness between business practices and their societal impacts. Additionally, Shrivastava (1995) underscores the critical role of organizations in ensuring ecological sustainability, advocating for leadership approaches that integrate environmental responsibility into their strategic objectives. By emphasizing the need for leaders to balance organizational goals with environmental stewardship, responsible leadership has made a substantial contribution to shaping the principles of sustainable leadership.

Another notable contribution to the development of sustainable leadership is Bass's (1985) Transformational Leadership approach. Transformational leadership centers on inspiring and motivating employees to surpass performance expectations and embrace change. While the framework does not explicitly focus on sustainability, it shares key commonalities with sustainable leadership, particularly in its emphasis on vision and long-term organizational goals. By fostering an environment where employees are encouraged to innovate and align with a shared vision, transformational leadership lays a foundation that aligns closely with the principles of sustainable leadership.

Stubbs and Cocklin (2008) define sustainable leadership as a strategic decision-making approach that integrates economic performance, environmental responsibility, and social equity. Similarly, Avery and Bergsteiner (2011) describe sustainable leadership as a holistic framework that balances immediate organizational goals with broader societal and environmental responsibilities. Yangil (2016) adds to this perspective by characterizing a sustainable leader as a visionary who prioritizes the transfer of resources to future generations. In a complementary view, Hargreaves and Fink (2006) emphasize that sustainable leadership involves the preservation and development of human and material resources over time. In essence, sustainable leadership represents an approach where leaders consider not only the immediate outcomes but also the long-term implications of their decisions on economic, social, and environmental systems. These leaders prioritize questions such as "What will this decision bring to us, society, and nature in the long run?" over "What will we gain now?"

Metcalf and Benn (2013) further explore the evolution of leadership competencies necessary for sustainability, emphasizing the importance of developing skills to navigate complex sustainability challenges. Eccles et al. (2014) provide empirical evidence linking corporate sustainability practices to improved financial performance and enhanced corporate reputation. Visser and Courtice (2011) bridge theory and practice by offering actionable insights into how leaders can effectively integrate sustainability principles into organizational strategies.

Ethical Climate

The term "ethical climate" was first introduced by Victor and Cullen (1987: 51), who defined it as "the shared perception of what is correct behavior, and how ethical situations should be handled in an organization." In their subsequent work, they refined the definition, describing ethical climate as "the prevailing perceptions of typical organizational practices and procedures that have ethical content" (Victor & Cullen, 1988: 101). While the wording differs slightly, both definitions underscore the critical role of organizations in shaping employees' ethical behaviors. Building on these definitions, Martin and Cullen (2006) described ethical climate as typical organizational practices and procedures with ethical content, shaped by the organizational culture and dominant moral philosophies. They further noted that ethical climate is dynamic, evolving as organizational values and practices adapt over time. Barnett and Schubert (2002) emphasized the collective nature of ethical climate, portraying it as a shared understanding of the validity of organizational procedures and practices, which fosters moral satisfaction among employees. Expanding this concept, Kaptein (2011) highlighted the influence of ethical leadership and accountability mechanisms in shaping the ethical climate. He argued that ethical climate is the product of organizational norms, practices, and policies that promote or inhibit ethical decision-making among employees. Recent studies, such as Kerse (2021), have expanded on this by investigating the relationship between ethical leadership, organizational trust, and extra-role service behaviors, particularly highlighting the significance of person-organization fit in fostering a positive ethical climate. This perspective integrates the role of leadership and organizational systems in establishing an ethical framework within organizations. Schwepker (2001) explores the practical implications of ethical climate, defining it as employees' shared perceptions of the ethical work environment, including norms, expectations, and practices related to ethical decision-making. This broader definition underscores the relationship between ethical climate and critical organizational outcomes, such as employee satisfaction, organizational commitment, and turnover intentions. Together, these definitions highlight the multifaceted nature of ethical climate and its influence on both individual and organizational performance. Furthermore, recent empirical research by Menes and Haguisan III (2020) highlights how ethical climate positively influences job satisfaction and organizational commitment, particularly in service industries such as hospitality, emphasizing its vital role in enhancing organizational outcomes.

Ethical climate theory suggests that the ethical environment within an organization plays a pivotal role in shaping employee attitudes and behaviors. Victor and Cullen (1988) identified five distinct types

of ethical climates, each reflecting different ethical priorities within organizational settings: Instrumental Climate: Characterized by self-interest and the pursuit of personal gain, often emphasizing outcomes over ethical considerations. Caring Climate: Focuses on the well-being and interests of others within the organization, fostering a sense of collective responsibility. Independence Climate: Encourages employees to rely on their individual moral judgment and personal ethical standards when making decisions. Law and Code Climate: Highlights adherence to external legal standards and professional codes of conduct as guiding principles for behavior. Rules Climate: Emphasizes strict compliance with internal organizational policies and procedures to guide ethical behavior. These climate types provide a comprehensive framework for understanding how ethical values are prioritized, operationalized, and manifested within organizations. They also serve as a basis for analyzing how organizational ethics influence employee conduct and decision-making processes.

In summary, an ethical climate functions as the moral compass of an organization, shaping how ethical issues are perceived, interpreted, and addressed within the organizational context. It plays a critical role in guiding employees' actions and decisions by providing a shared ethical framework. By cultivating a positive ethical climate, organizations can encourage ethical behavior, improve employee well-being, and establish a robust ethical foundation for sustainable success. Despite the extensive research and growing interest in ethical climate, significant gaps remain in the theoretical understanding of how ethical climates operate within organizations. These gaps, as highlighted by Parboteeah et al. (2024), continue to challenge the advancement of comprehensive theories on ethical climate in organizational settings. Addressing these gaps presents an opportunity for future research to further refine and expand the conceptualization of ethical climate.

Counterproductive Work Behavior (CWB)

Counterproductive work behavior (CWB) has been conceptualized in various ways by scholars, each highlighting different dimensions of this complex phenomenon. CWB is an umbrella term encompassing employee actions that harm an organization either by directly disrupting its operations or damaging its assets, or by negatively affecting other employees, thereby reducing their efficiency and productivity (Fox et al., 2001). Spector et al. (2006) define CWB as intentional acts carried out by employees with the potential to harm their organization or its members. Similarly, Robinson and Bennett (1995) describe CWB as deviant workplace behaviors that violate organizational norms, specifying that these behaviors may target either individuals within the organization or the organization itself. A critical aspect shared

across these definitions is the intentionality behind CWBs. Unlike unintentional mistakes or accidents, these behaviors are deliberate actions. Employees engage in CWBs willingly and consciously, with the intent to cause harm or, at the very least, without taking steps to avoid behaviors they know will have harmful consequences. This deliberate nature distinguishes CWBs from other forms of workplace issues, making them a particularly challenging problem for organizations to address effectively.

On social media platforms that share engaging and thought-provoking content about work and workplaces, you may have encountered a scenario where an employee, following a moment of extreme frustration, destroys their desk, smashes their computer, shouts angrily, and storms out. Perhaps you have even witnessed such behavior in person or experienced it firsthand. While these instances may represent exaggerated examples, they illustrate the potential for individuals to harm their work environment, colleagues, or the organization itself to varying degrees. These actions, whether minor or significant, that negatively impact the workplace or its members are broadly categorized as counterproductive work behaviors (CWBs). The motivations behind such behaviors can stem from a multitude of factors. To effectively address CWBs, it is essential to delve into their underlying causes, exploring the situational and emotional triggers that often drive employees to engage in such actions.

Mount et al. (2006) examined counterproductive work behavior (CWB) through the lens of personality traits, particularly conscientiousness and agreeableness. Their findings suggest that such behaviors are not solely triggered by external factors but may also arise from individuals' inherent predispositions shaped by personal characteristics. From a psychological perspective, Bandura (1999) introduced the concept of moral disengagement, offering an explanation for how individuals rationalize harmful actions. This perspective highlights the internal conflict employees may experience when reconciling their behaviors with their moral values, shedding light on the complex interplay between cognition and ethics. More recently, Lim (2021) explored the manifestation of CWB in digital environments, such as cyberloafing or disengagement in remote work settings. This expansion underscores the need to adapt traditional understandings of CWB to the challenges of the digital workplace, where physical boundaries are no longer defining factors. Recent research by Costin, Roman, and Balica (2023) highlights how remote work conditions during the COVID-19 pandemic have led to increased employee burnout and professional job stress, emerging as significant predictors of counterproductive work behavior in digital environments. Adding a cultural dimension, Yang and Diefendorff (2009) demonstrated how societal norms shape the prevalence and types of CWB. For

example, in collectivist cultures, individual-focused CWBs like gossip may be discouraged, while organization-focused behaviors such as absenteeism might be more tolerated when maintaining group harmony is prioritized.

What unites these definitions is the shared acknowledgment that counterproductive work behavior (CWB) is inherently human in nature. It often stems from feelings of frustration, resentment, or disillusionment experienced by employees within their organizational environments. Such behaviors can manifest as silent protests, subtle expressions of dissatisfaction, or misguided efforts to regain a sense of control over their circumstances. This perspective encourages a deeper examination of these actions, urging us to look beyond their surface manifestations. By doing so, we can identify the unmet needs, unresolved conflicts, or systemic injustices that drive these behaviors. Understanding CWB through this lens highlights the importance of addressing not only individual actions but also the broader organizational factors that contribute to their occurrence.

Relationships Among Concepts and Prior Research

Sustainable leadership, ethical climate, and counterproductive work behaviors (CWBs) are dynamic and interrelated factors that significantly influence organizational performance and employee behavior. Understanding the interactions among these variables provides valuable insights into reducing CWBs and mitigating other adverse effects on organizational outcomes. Baysal and Yangil (2023) highlights that sustainable leadership, through fostering an ethical climate, has shown to effectively mitigate counterproductive behaviors while promoting organizational alignment and employee well-being. For instance, Aryati et al. (2018) highlight that ethical leadership, a core element of sustainable leadership, plays a pivotal role in shaping ethical climates. Leaders who demonstrate ethical behavior establish organizational norms that influence employees' attitudes and behaviors. Similarly, Demirtaş and Akdoğan (2015) found that ethical leadership positively impacts dimensions of work commitment, including vigor, dedication, and absorption. Recent findings suggest that Organizational Citizenship Behaviors (OCBs) and Counterproductive Workplace Behaviors (CWBs) represent two opposing ends of workplace behavior but are influenced by the same organizational contexts. Ethical leadership plays a pivotal role in shaping these behaviors, guiding employees toward more constructive and aligned actions within the organization (Fan, Wider, & Chan, 2023). This perspective underscores the critical role of leadership in creating environments that either mitigate or exacerbate such behaviors. Moreover, studies by Pagliaro et al. (2018) and Schminke et al. (2007) re-

veal that a positive ethical climate characterized by transparency, trust, and fairness increases the alignment of employee behavior with organizational values while reducing the occurrence of CWBs. Ethical climates not only suppress CWBs but also encourage prosocial behaviors such as organizational citizenship behaviors (OCB). For example, Bellora-Bienengräber et al. (2022) demonstrate that ethical leadership fosters an atmosphere of accountability and justice, addressing the root causes of CWBs. Furthermore, ethical leadership practices embed core values within the organization, while the ethical climate operationalizes these values as enforceable norms. This integration creates a cohesive and positive work environment, enhancing employee engagement and strengthening organizational resilience (Gwamanda & Mahembe, 2023).

Recent literature emphasizes the potential of sustainable leadership to cultivate an ethical climate by embedding values such as fairness, inclusivity, and social responsibility into organizational practices (Babalola et al., 2021; Demirtaş & Akdoğan, 2015). Uzun and Güngör (2024) provide evidence from the higher education sector, demonstrating that academic leadership practices reinforcing ethical climates not only enhance organizational justice but also significantly reduce CWBs. This leadership approach not only promotes ethical standards but also aligns organizational culture with broader societal expectations. Khokhar and Rehman (2017) explored the relationship between ethical leadership and employee performance, with a particular focus on the mediating roles of organizational citizenship behavior (OCB) and counterproductive work behavior (CWB) within this framework. Their findings revealed a significant relationship between ethical leadership and employee performance, where CWB partially mediates the link between ethical leadership behavior and performance outcomes. This suggests that while ethical leadership enhances employee performance, mitigating CWBs remains a critical factor in maximizing its effectiveness. Kul (2023) explore the role of green transformational leadership in enhancing ethical climates and sustainability efforts, thereby reducing workplace conflicts and fostering a more cohesive work environment.

Despite the growing body of literature on sustainable leadership and ethical climates, the mechanisms through which sustainable leadership influences ethical climates and their subsequent effects on counterproductive work behaviors (CWBs) remain insufficiently explored. Specifically, sustainable leadership fosters ethical climates by embedding fairness, accountability, and inclusivity, which serve as foundational values for guiding employee behavior by establishing clear ethical norms and expectations. These values not only influence individual actions but also shape collective behavior patterns, creating an environment where ethical conduct becomes the

standard and counterproductive behaviors are naturally discouraged. For instance, a positive ethical climate may mediate the relationship by amplifying the constructive impact of sustainable leadership on reducing CWBs. Alternatively, ethical climates could moderate this relationship by strengthening or weakening the extent to which sustainable leadership mitigates negative workplace behaviors. Recent studies further highlight these dynamics: Huang et al. (2021) demonstrate that transformational and ethical leadership styles are effective in reducing CWBs through enhanced employee engagement. while Gulbahar et al. (2023) reveal that a strong ethical climate can mitigate the impact of negative personality traits, such as narcissism, on CWBs, underscoring the importance of ethical leadership in fostering such climates. Additionally, the findings of Barattucci et al. (2021) emphasize that ethical climates, when combined with distributed leadership, enhance organizational identification, leading to improved work outcomes and reduced CWBs. To address this gap, the present study examines the role of ethical climate as a potential mediating or moderating variable in the relationship between sustainable leadership and CWBs, drawing on recent theoretical and empirical advances in organizational behavior research.

Research Model and Hypotheses

This study aims to address the following research questions:

- *What is the direct relationship between sustainable leadership and CWBs?*
- *What is the direct relationship between sustainable leadership and ethical climate?*
- *Does ethical climate mediate the relationship between sustainable leadership and CWBs?*

By addressing these questions, the research seeks to contribute to the expanding discourse on leadership and ethics. Additionally, it aims to provide practical insights for organizations on how to design leadership practices that promote ethical and sustainable workplace cultures. In line with these objectives, the research model and hypotheses have been developed and are presented as follows:

H1: Sustainable leadership negatively affects counterproductive work behaviors.

H2: Sustainable leadership positively affects the ethical climate.

H3: Ethical climate negatively affects counterproductive work behaviors

H4: Ethical climate mediates the relationship between sustainable leadership and counterproductive work behaviors.

Method

This study was designed as a quantitative research project, utilizing scale-based data collected through face-to-face interviews. Ethical approval for the study was granted by the Istanbul Gelişim University Ethics Committee on August 16, 2024 (Meeting No: 2024-12, Decision No: 2024-12-06). Given the association of sustainable leadership with individuals in managerial and decision-making roles, specific guidelines were established to identify participants capable of accurately evaluating the sustainable leadership process. This methodological approach was intended to minimize potential misunderstandings and ensure data integrity. To enhance the reliability of the responses, participants were provided with detailed explanations during the data collection process. Efforts were made to maintain consistency in responses and to address any ambiguities that could affect the quality of the data.

For data analysis, SPSS v24 software was employed to perform preliminary tests and descriptive statistical analyses. Confirmatory factor analyses (CFA) were conducted using IBM AMOS v24 to validate the measurement models and ensure the robustness of the constructs.

Population - Sample

Sustainable leadership, ethical climate, and counterproductive work behaviors (CWBs) are universal concepts that transcend specific groups, sectors, or organizational settings. Consequently, the research sample was approached from a holistic perspective, without imposing strict limitations. However, due to the integral role of sustainability and ethics in public administration—where community needs, environmental concerns, and long-term societal impacts are central—certain exclusions were applied to align the sample with the study's scope and objectives. Employees from public institutions, state-owned enterprises, and private organizations serving the public interest were excluded from the sample. Instead, the research focused on employees, specialists, mid-level managers, and senior managers working in private enterprises. This approach ensured the alignment of the sample with the study's aim of investigating sustainable leadership, ethical climate, and CWBs within the context of private sector organizations.

Data were collected from a total of 327 white-collar employees in Istanbul. For this study, convenience sampling was employed, a widely used non-probability sampling technique extensively discussed in the literature (e.g., Etikan, Musa, & Alkassim, 2016; Creswell & Creswell, 2017; Saunders, Lewis, & Thornhill, 2019). This method was selected due to

its practicality, cost-effectiveness, and accessibility, particularly under the resource constraints faced during the research process. Convenience sampling enables researchers to efficiently collect data from readily available and willing participants, making it a suitable approach when time, budget, or logistical limitations are present. As highlighted by Etikan et al. (2016), this method is particularly advantageous in exploratory research, where the focus is on gaining preliminary insights rather than achieving generalizability. Similarly, Creswell and Creswell (2017) emphasize the simplicity and speed of the data collection process afforded by convenience sampling, attributes that were critical for the feasibility of our study.

The demographic data of the research sample are summarized in Table 1. A total of 327 participants contributed to the study, consisting of 53.5% females (n = 175) and 46.5% males (n = 152). Regarding age distribution, the majority of participants were between 26-35 years (33.9%) and 36-45 years (33.9%), followed by 18-25 years (17.5%) and 45+ years (14.7%).

Table 1. Demographic Data of the Research Sample

Variable		Count	Percentage (%)
Gender	Female	175	53.5
	Male	152	46.5
Age	18-25	57	17.5
	26-35	111	33.9
	36-45	111	33.9
	45+	48	14.7
Education	High School - College	28	8.6
	Associate	35	10.7
	Bachelor's	177	54.1
	Postgraduate	87	26.6
M. Status	Single	155	47.4
	Married	172	52.6
Tenure in Current Institution	0-5 years	176	53.8
	5-10 years	69	21.1
	11-15 years	45	13.8
	15+ years	37	11.3
Work Experience	0-5 years	97	29.7
	5-10 years	68	20.8
	11-15 years	76	23.2
	15+ years	86	26.3

In terms of educational background, the majority of participants held a bachelor's degree (54.1%), while 26.6% had a postgraduate degree. Smaller portions had completed an associate degree (10.7%) or high school (8.6%). Regarding marital status, 52.6% of participants were married, while 47.4% were single. When considering tenure within their current institutions, 53.8% of participants reported working for 0-5 years, followed by 21.1% with 5-10 years, 13.8% with 11-15 years, and 11.3% with more than 15 years. In terms of overall professional experience, 29.7% had 0-5 years, while 26.3% reported over 15 years, 23.2% had 11-15 years, and 20.8% had 5-10 years of experience. These demographic results illustrate that the sample comprises a diverse group of participants in terms of education level, marital status, tenure, and professional experience. This diversity provides a robust basis for analyzing the relationships explored in the study and enhances the generalizability of the findings within the context of the private sector.

Measures

The Organizational Ethical Climate Scale, developed by Çalışkan (2022), is designed to evaluate organizational ethical climate perceptions across various sectors, including universities, healthcare, and industry. The scale has been validated as a reliable and robust instrument through exploratory and confirmatory factor analyses. It comprises two main dimensions: "Ethical Climate for Rules" and "Ethical Climate for Behaviors," measured by a total of nine items. The two-factor structure of the scale aligns with the theoretical foundations of ethical climate theories proposed by Victor and Cullen (1987, 1988). These theories emphasize that ethical climates stem from shared perceptions of organizational practices and procedures, influencing both decision-making processes and employee behaviors. This strong theoretical alignment enhances the scale's practical usability in assessing ethical climates within diverse cultural and operational contexts. Additionally, the scale is specifically tailored to reflect the cultural and organizational characteristics of Turkish institutions. This design consideration ensures cultural compatibility and enhances the validity of the responses, making the scale particularly suitable for the target audience in the Turkish context.

The Sustainable Leadership Scale, originally developed by McCann and Holt (2011), was adapted into Turkish by Yangil and Şahin (2019) to ensure cultural relevance and accuracy within the Turkish context. This scale adopts a multidimensional approach to leadership, focusing not only on current organizational performance but also on the long-term sustainability of environmental, social, and ethical practices. The scale comprises four key dimensions: Ethical-Social Responsibility, Change, Innovation-Profitability, and Culture-Human Resources. The adaptation process

involved rigorous validation procedures, including exploratory and confirmatory factor analyses, which confirmed the scale's reliability and validity for the Turkish workforce. By tailoring the scale to the cultural and organizational characteristics of Turkey, the adaptation ensures that it captures the nuances of sustainable leadership practices specific to this context. The inclusion of this scale in the present study provides a robust measurement tool that aligns the theoretical framework of sustainable leadership with the practical realities of Turkish organizations. This alignment facilitates a more accurate evaluation of sustainable leadership behaviors and their impact on organizational dynamics.

The original **Counterproductive Work Behavior (CWB) scale,** developed by Spactor et al. (2006), consisted of 33 items and five sub-dimensions: sabotage, withdrawal, abuse, stealing, and production deviance. This scale was translated into Turkish by Öcel (2010), who conducted validity and reliability analyses. Öcel reported that the Turkish version exhibited a four-factor structure (abuse, stealing, withdrawal, and sabotage), comprising 32 items and demonstrating satisfactory psychometric properties for measuring CWBs in Turkey. In a subsequent pilot study, Tüfekçi (2016) utilized Öcel's (2010) adaptation of the scale and found that certain items, particularly in the abuse and sabotage sub-dimensions, were perceived as sensitive and not answered appropriately by participants. Consequently, 8 items from the abuse sub-dimension, 6 from stealing, and 2 from sabotage were removed. Given the present study's focus on white-collar employees in Turkey, a comprehensive review of relevant Turkish studies was conducted. Based on this review, items from the sabotage sub-dimension were excluded to ensure participant objectivity and maintain the validity of the findings. The final version of the scale used in this study includes 14 items across the abuse and withdrawal sub-dimensions. The CWB scale has been adapted and applied in various Turkish contexts. For instance, Akbas Tuna and Boylu (2016) revised the scale, excluding 13 items, and reported a three-factor structure (mistreatment, theft, and withdrawal) with 19 items. Similarly, Demircioğlu and Özdemir (2014) validated a version consisting of 28 items across three sub-dimensions: abuse, stealing, and withdrawal, in educational organizations. Ödemiş (2011), however, utilized the scale as a single-dimensional construct. These findings indicate that while the CWB scale has been widely used across sectors in Turkey, certain items have required modification during the adaptation process to align with the specific cultural and contextual characteristics of the target sample.

Validity and Reliability

The validity and reliability of the scales and their subdimensions, which have been extensively examined in previous studies, were reassessed in this research to ensure their applicability within the current context. Reliability analysis was conducted using Cronbach's Alpha (α), a widely used measure of internal consistency in the social sciences. The analysis revealed that the reliability coefficients of the scales exceeded 0.70, a threshold commonly accepted as an indicator of strong internal consistency and reliability (Akgül & Çevik, 2005). Cronbach's Alpha is a statistical measure that evaluates the extent to which items within a scale consistently measure the same underlying construct, thereby providing evidence of the scale's internal reliability (Tavakol & Dennick, 2011). The findings from this study confirm that the scales are both reliable and valid for assessing the constructs of interest within the sample and research context.

Table 2. Cronbach's Alpha Values of the Scales Used in the Study

Scales and Dimensions	Cronbach's Alpha (α) Value	Number of Items
Sustainable Leadership Scale	.971	15
Ethics - Social Responsibility	.929	3
Change	.897	3
Innovation - Profitability	.881	4
Culture - Human Resources	.945	5
Counterproductive Work Behavior Scale	.922	14
Abuse	.896	8
Withdrawal	.866	6
Ethical Climate Scale	.935	9
Ethical Climate - Rules	.902	5
Ethical Climate - Behaviors	.908	4

The Sustainable Leadership Scale demonstrated exceptional internal consistency, with an overall Cronbach's Alpha of 0.971 across its 15 items, indicating excellent reliability in measuring the construct. Its subdimensions also exhibited strong reliability scores: Ethics - Social Responsibility (α = 0.929), Change (α = 0.897), Innovation - Profitability (α = 0.881), and

Culture - Human Resources (α = 0.945). These values confirm that the scale effectively captures the multidimensional nature of sustainable leadership with high internal consistency.

The Counterproductive Work Behavior (CWB) Scale also showed excellent reliability, with an overall Cronbach's Alpha of 0.922 across its 14 items. The subdimensions Abuse and Withdrawal exhibited reliability scores of 0.896 and 0.866, respectively, confirming the scale's robustness in measuring different types of counterproductive workplace behaviors. Similarly, the Ethical Climate Scale demonstrated excellent internal consistency, with an overall Cronbach's Alpha of 0.935 across 9 items. The subdimensions Ethical Climate - Rules (α = 0.902) and Ethical Climate - Behaviors (α = 0.908) also exhibited strong reliability, further validating the scale's effectiveness in assessing the ethical dimensions of organizational climate. These findings collectively confirm that all scales employed in this study are reliable and robust

measurement tools, capable of accurately capturing the intended constructs within the research context.

In conclusion, the Cronbach's Alpha values for all scales and their respective subdimensions exceed the generally accepted threshold of 0.70, indicating strong internal consistency and reliability. These results affirm that the scales used in this study are robust and effective tools for accurately measuring the intended constructs. This high level of reliability enhances the validity and credibility of the findings, ensuring that the study provides a solid foundation for analyzing the relationships among the variables.

To evaluate the validity of the research scales, confirmatory factor analysis (CFA) was conducted using AMOS software. The scales were initially examined individually at the second-order level to assess their construct validity, ensuring that the observed data align with the theoretical constructs being measured. The results of the fit indices for the research scales are presented in detail in Table 3.

Table 3. Fit Indices Results for the Research Scales

Scale	ΔX2/df	GFI	CFI	TLI	NFI	RMSEA
Sustainable Leadership (SL)	3.659	.886	.957	.947	.942	.090
Counterproductive Work Behaviors (CWB)	3.630	.890	.927	.910	.903	.090
Ethical Climate Scale (EC)	3.640	.945	.970	.958	.959	.090

The fit indices obtained from the confirmatory factor analysis (CFA) indicate that the research scales demonstrate an acceptable level of validity and reliability. For the Sustainable Leadership Scale, the results show a χ²/df ratio of 3.659, a GFI (Goodness of Fit Index) value of 0.886, a CFI (Comparative Fit Index) of 0.957, a TLI (Tucker-Lewis Index) of 0.947, an NFI (Normed Fit Index) of 0.942, and an RMSEA (Root Mean Square Error of Approximation) value of 0.090. Similarly, the Counterproductive Work Behavior Scale produced satisfactory results, with a χ²/df ratio of 3.630, a GFI of 0.890, a CFI of 0.927, a TLI of 0.910, an NFI of 0.903, and an RMSEA of 0.090. The Ethical Climate Scale also demonstrated adequate fit indices, with a χ²/df ratio of 3.640, a GFI of 0.945, a CFI of 0.970, a TLI of 0.958, an NFI of 0.959, and an RMSEA of 0.090. In conclusion, the CFA results confirm that all three scales meet the acceptable thresholds for model fit, as established in the literature (Munro, 2005; Schreiber et al., 2006; İlhan & Çetin, 2014). These findings validate the appropriateness of the scales for use in the current research context. (Çalışkan, 2022: 44).

Following the examination of the goodness-of-fit indices for the research scales, the measurement model's overall fit indices were evaluated at the second-order level for the entire model. The results of the analysis are summarized in Table 4, showing that the model's fit indices fall within acceptable thresholds.

Table 4. Results of the Fit Indices for the Research Model

ΔX2/df	GFI	CFI	TLI	NFI	RMSEA	RMR
2.195	.810	.927	.921	.875	.061	.097

The chi-square/degree of freedom (ΔX²/df) ratio was calculated as 2.195, which is below the commonly recommended threshold of 3, indicating a good model fit. The Goodness-of-Fit Index (GFI) was reported as 0.810, slightly below the ideal value of 0.90, yet still within a tolerable range for complex models.

The Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values were found to be 0.927 and 0.921, respectively, both exceeding the commonly accepted cutoff of 0.90, signifying a good fit. The Normed Fit Index (NFI), while slightly lower at 0.875, remains close to the acceptable range for exploratory models.

The Root Mean Square Error of Approximation (RMSEA) was reported as 0.061, which falls within the acceptable range of ≤0.08, indicating an adequate fit. However, the Root Mean Square Residual (RMR) value of 0.97 is above the desired threshold of ≤0.08, suggesting some room for improvement. In summary, the results demonstrate that the overall measurement model exhibits acceptable levels of fit based on the indices presented, supporting the validity of the proposed structure. Further refinements could enhance the model, particularly addressing the RMR value. (Hu and Bentler, 1999)

Composite Reliability (CR) values for all constructs

Table 5. Convergent and Discriminant Validity of the Constructs

Constructs	CR	AVE	MSV	MaxR(H)	SL	CWB	EC
SL	0.973	0.901	0.433	0.978	0.949		
CWB	0.914	0.848	0.236	1.278	-0.465***	0.921	
EC	0.925	0.860	0.433	0.927	0.658***	-0.486***	0.927

*** p < 0,01

are above the recommended threshold of 0.70, indicating high internal consistency (Sustainable Leadership: 0.973, Counterproductive Work Behavior: 0.914, Ethical Climate: 0.925). The Average Variance Extracted (AVE) values are also above 0.50, meeting the criterion for convergent validity (Sustainable Leadership: 0.901, Counterproductive Work Behavior: 0.848, Ethical Climate: 0.860). The square root of AVE for each construct, which is represented on the diagonal of the correlation matrix, exceeds its correlations with other constructs, providing evidence of satisfactory discriminant validity. Specifically, for the Servant Leadership (SL) construct, the square root of its AVE (√AVE = 0.949) is greater than its correlations with Counterproductive Work Behavior (CWB) (-0.465) and Ethical Climate (EC) (0.658). Similarly, for the CWB construct, the square root of its AVE (√AVE = 0.921) is higher than its correlations with SL (-0.465) and EC (-0.486). Lastly, for the EC construct, the square root of its AVE (√AVE = 0.927) surpasses its correlations with SL (0.658) and CWB (-0.486). These results confirm that each construct is distinct and demonstrates strong discriminant validity. The Maximum Shared Variance (MSV) for each construct is less than or equal to its AVE, supporting the disc-

riminant validity of the model. For instance, the MSV for Sustainable Leadership is 0.433, which is lower than its AVE of 0.901. Similarly, for Counterproductive Work Behavior, the MSV is 0.236, below its AVE of 0.848, and for Ethical Climate, the MSV matches the AVE at 0.433. The Maximum Reliability (MaxR(H)) values further confirm the robustness of the constructs, as all values are above 0.90 (Sustainable Leadership: 0.978, Counterproductive Work Behavior: 1.278, Ethical Climate: 0.927).

The results of the correlation analysis, presented in Table 6, reveal significant relationships between the study's primary variables: Sustainable Leadership (SL), Counterproductive Work Behaviors (CWB), and Ethical Climate (EC). The mean scores and standard deviations for each variable indicate that respondents reported moderate levels of Sustainable Leadership (M = 3.515, SD = 1.0994) and Ethical Climate (M = 3.8206, SD = 1.0498), while the mean score for Counterproductive Work Behaviors was relatively low (M = 1.953, SD = 0.91775), reflecting the overall low prevalence of such behaviors in the sampled organizations.

The correlation between Sustainable Leadership

Table 6. Correlation Analysis Results

Scales	Std. Dev.	Mean	SL	CWB	EC
Sustainable Leadership (SL)	1.09941	3.5151	-		
Counterproductive Work Behaviors (CWB)	.91775	1.9533	-,410*	-	
Ethical Climate (EC)	1.04981	3.8206	.601*	-.425*	-

*p<0.05, **p<0.01

and Ethical Climate was positive and strong (r = 0.601), suggesting that higher levels of sustainable leadership practices are associated with a more positive ethical climate in organizations. This finding highlights the critical role of leadership in shaping ethical organizational environments. Conversely, the relationship between Sustainable Leadership and Counterproductive Work Behaviors was negative and moderate (r = -0.410), indicating that as sustainable leadership practices increase, counterproductive work behaviors decrease. This supports the notion that ethical and sustainability-focused leadership can mitigate harmful workplace behaviors. Similarly, a negative and moderate correlation was observed between Ethical Climate and Counterproductive Work Behaviors (r = -0.425). This result suggests that a stronger ethical climate is linked to lower levels of counterproductive behaviors, emphasizing the importance of fostering ethical norms and values in organizations.

The hypothesis tests were conducted using the PROCESS Macro for SPSS, which is a widely recognized tool for mediation, moderation, and conditional process analysis. This approach allows for the precise examination of direct, indirect, and total effects, while also providing bootstrapped confidence intervals to assess the significance of the relationships. The hypothesis testing results indicate significant relationships between the variables in the study, confirming the proposed theoretical model. First, Sustainable Leadership was found to positively influence Ethical Climate (β = 0.6008, p < 0.01), demonstrating that leadership practices focused on sustainability contribute to the development of a stronger ethical climate within organizations. This relationship is further validated by the confidence interval (LLCI = 0.4904, ULCI = 0.6570), which does not include zero, supporting the robustness of this finding.

Additionally, Sustainable Leadership was shown to have a significant negative effect on Counterpro-

Table 7. Hypothesis Analysis Results

Scales	Std. Dev.	Mean	SL	CWB	EC
Sustainable Leadership (SL)	1.09941	3.5151	-		
Counterproductive Work Behaviors (CWB)	.91775	1.9533	-.410*	-	
Ethical Climate (EC)	1.04981	3.8206	.601*	-.425*	-

ductive Work Behaviors (CWB) (β = -0.4097, p < 0.01). This result suggests that the implementation of sustainable leadership practices reduces undesirable workplace behaviors. The confidence interval for this path (LLCI = -0.4251, ULCI = -0.2589) also supports this conclusion. Similarly, Ethical Climate demonstrated a significant negative effect on Counterproductive Work Behaviors (β = -0.4245, p < 0.01),

indicating that fostering an ethical organizational climate can significantly mitigate harmful workplace behaviors. The confidence interval for this relationship (LLCI = -0.4575, ULCI = -0.2847) further confirms its validity. The mediation analysis reveals that Ethical Climate partially mediates the relationship between Sustainable Leadership and Counterproductive Work Behaviors. While the direct effect of

Table 8. Mediation Analysis Results

Mediation	Direct Effects	Indirect Effects	Total Effects	Boot LLCI	Boot ULCI
SL - EC - CWB	-.2020***	-.1400***	.3420***	-.2209	-.0578

*** p < 0.01

Sustainable Leadership on Counterproductive Work Behaviors remains significant (β = -0.2020, p < 0.01), the indirect effect through Ethical Climate is also significant (β = -0.1400, p < 0.01). This finding highlights that a portion of the impact of Sustainable Leadership on Counterproductive Work Behaviors operates through the development of an Ethical Climate. The total effect, combining both direct and indirect pat-

hways, is significant as well (β = -0.3420, p < 0.01). The mediation effect is further supported by the bootstrap confidence intervals for the indirect effect (LLCI = -0.2209, ULCI = -0.0578), which do not include zero. Results emphasize the critical role of Sustainable Leadership in reducing Counterproductive Work Behaviors, both directly and indirectly through the mediation of Ethical Climate. Furthermore, the

Table 9. Overview of Hypothesis Test Outcomes

Hypothesis	Result
H1: *Sustainable leadership negatively affects counterproductive work behaviors.*	**Accepted**
H2: *Sustainable leadership positively affects the ethical climate.*	**Accepted**
H3: *Ethical climate negatively affects counterproductive work behaviors*	**Accepted**
H4: *Ethical climate mediates the relationship between sustainable leadership and counterproductive work behaviors.*	**Accepted**

findings underline the importance of cultivating an Ethical Climate within organizations to effectively address negative workplace behaviors and promote a healthier work environment.

Conclusion

This study investigated the mediating role of ethical climate in the relationship between sustainable leadership and counterproductive work behaviors (CWB). The findings reveal that sustainable leadership significantly reduces CWBs by fostering a strong ethical climate. This underscores the importance of leadership practices that prioritize ethical values, as they not only improve organizational well-being but also enhance employee performance. These results highlight the broader implications of ethical climate as a key mechanism through which sustainable leadership can effectively address workplace challenges.

The correlation analysis conducted within the study revealed significant and positive relationships among the variables, highlighting their interconnectedness. Furthermore, regression analysis confirmed that sustainable leadership has a significant effect on counterproductive work behaviors, thereby supporting Hypothesis 1 (H1). These findings indicate that sustainable leadership practices effectively reduce counterproductive work behaviors, consistent with previous studies in the literature (Battal, 2024; Brown, Treviño, & Harrison, 2005; Hu, Dong, Li, & Wang, 2023). The significance of these findings lies in their ability to bridge the gap between theoretical frameworks and practical implementation. By showcasing how sustainable leadership influences ethical climates to mitigate CWBs, this study provides actionable insights for organizational leaders aiming to foster ethical workplaces. Furthermore, it contributes to the existing body of knowledge by empirically validating the mediating role of ethical climate, an area that has been underexplored in prior research. This advancement in understanding equips practitioners with evidence-based strategies to enhance employee well-being and organizational performance while addressing workplace misconduct. By

fostering an ethical climate, sustainable leadership can mitigate undesirable workplace behaviors, contributing to improved organizational well-being and employee performance.

The significant effect of sustainable leadership on ethical climate supports Hypothesis 2 (H2), demonstrating that sustainable leadership practices positively contribute to the development of an ethical climate. Although no studies in the existing literature directly examine the mediating role of ethical climate in the relationship between sustainable leadership and counterproductive work behaviors (CWBs), related research offers valuable insights. For instance, Divleli and Ergün (2022) found that ethical climate mediates the relationship between transformational and transactional leadership styles and CWBs in the education sector. Similarly, Demirtaş and Akdoğan (2015) revealed that ethical leadership positively influences ethical climate, reduces turnover intentions, and strengthens emotional commitment. Ansari, Ali, and Malik (2023) identified ethical climate as a mediator in the relationship between responsible leadership and employees' sustainable performance. Additionally, research highlights a positive relationship between transformational leadership and various dimensions of ethical climate, underscoring transformational leadership as a critical determinant of ethical climate, particularly in the education sector (Sagnak, 2010). Hypothesis 3 (H3) was also supported, indicating that ethical climate negatively impacts counterproductive work behaviors. This finding aligns with prior studies emphasizing the role of ethical climate in reducing CWBs (Kılıç, 2014; Gerçek & Kaya, 2017; Chernyak-Hai & Tziner, 2014; Belschak & Den Hartog, 2018). Furthermore, Hypothesis 4 (H4), which proposed the mediating role of ethical climate in the relationship between sustainable leadership and CWBs, was confirmed, highlighting the pivotal role of ethical climate in translating leadership practices into reduced workplace misconduct. This finding suggests that organizational leadership should focus on cultivating an ethical climate as a strategic priority to amplify the positive effects of sustainable leadership. By embedding ethical principles into daily operations and decision-making

processes, leaders can create a workplace environment that discourages misconduct while promoting trust, collaboration, and long-term organizational success. Future research could explore sector-specific applications of these insights to further refine leadership strategies and ethical climate development.

As a result of the present study, the following suggestions are made:

Redefining Management Priorities: Embracing a Human-Centric Approach

We recommend that academic researchers shift their focus from traditional profit-oriented business studies to human- and environment-centered topics. This transition will contribute to a deeper understanding of sustainable practices and the long-term benefits of prioritizing societal and ecological well-being in organizational contexts. Mainstream management approaches have traditionally prioritized organizational performance, often neglecting human, societal, and environmental considerations. Alvesson and Willmott (1992) criticized this narrow focus on economic outcomes at the expense of social benefits, describing such paradigms as exclusionary. Similarly, Grey (1994) and Fournier and Grey (2000) emphasized that management literature has historically supported a performance-oriented perspective that overlooks human-centric values. This study directly addresses these critiques by positioning sustainable leadership as a transformative framework that integrates ethical and value-driven principles into management practices. Building on these critiques, this study adopts a broader perspective by exploring the potential of sustainable leadership to integrate value-driven principles into management practices. Sustainable leadership emphasizes the well-being of people, society, and nature, contributing not only to organizational health, workplace harmony, and employee well-being but also to societal and environmental sustainability. Unlike traditional management paradigms, sustainable leadership offers an inclusive model that transcends the sole pursuit of organizational performance. By focusing on ethical leadership and long-term vision, sustainable leadership fosters a balance between achieving organizational goals and upholding human values and environmental stewardship. This approach positions sustainable leadership as not only a strategic necessity but also a moral imperative for organizations seeking to thrive in today's complex and interconnected world. This study aims to underscore the individual and societal benefits of sustainable leadership, highlighting its capacity to align ethical principles with sustainable organizational practices.

Promote Ethical Leadership Training

Leaders should participate in regular training programs focused on ethical leadership and sustainable management practices. Such programs are essential for equipping leaders with the tools and perspectives needed to foster ethical decision-making and sustainable practices within their organizations. These programs can include interactive methods such as case studies and role-playing activities to enhance decision-making skills (Thiel et al., 2012; Rest, 1986). Schoemaker (1995) highlights that scenario planning workshops equip leaders to anticipate potential challenges and align organizational strategies with long-term goals. Leaders who recognize and value individual employee contributions can significantly enhance job satisfaction and organizational commitment. Noe et al. (2017) emphasize that integrating micro-learning modules into training programs yields more effective outcomes. These approaches not only impart knowledge but also cultivate an ethical workplace climate.

Integrate Environmental, Social, and Governance (ESG) Principles into Strategic Leadership

Embedding environmental, social, and governance (ESG) principles into strategic planning is critical for aligning organizational goals with sustainable leadership practices. Leaders should define clear sustainability objectives, monitor their progress, and communicate these goals transparently to stakeholders. According to KPMG's 2021 Global CEO Survey, organizations that prioritize ESG principles are better equipped to adapt to market changes and ensure long-term resilience. Incorporating ESG into leadership training and decision-making frameworks can further strengthen an ethical organizational culture. Shaikh (2022) highlights that ESG strategies not only enhance firm performance but also contribute to stakeholder trust and environmental responsibility, making them indispensable for modern organizational frameworks. This integration ensures that organizations remain competitive while maintaining their commitment to broader societal and ecological goals. Incorporating ESG into leadership training and decision-making frameworks can further strengthen an ethical organizational culture.

Implement Transparent Communication Mechanisms

The establishment of an ethical climate relies on leadership practices that prioritize justice, transparency, and accountability (Kaptein, 2008; Treviño et al., 1998). Porter and Kramer (2011) argue that embedding ethical values and transparent communica-

tion within the workplace enhances employee trust, fostering long-term organizational success, nhances organizational resilience, boosts employee motivation and positively impacts overall performance. Critical measures such as developing ethical guidelines, implementing anonymous reporting mechanisms, and providing regular ethical leadership training are fundamental steps in building a sustainable organizational structure. The integration of these concepts becomes particularly significant in the context of sustainable leadership and ethical climate. By embedding these principles into organizational practices, leaders can effectively reduce counterproductive work behaviors (CWBs), as supported by prior research (Schminke et al., 2007; Pagliaro et al., 2018).

This study has several limitations that should be taken into account. The sample size of 327 participants was constrained by time and financial limitations, which may affect the generalizability of the findings. Moreover, the research focused exclusively on white-collar employees in Istanbul, which may not fully capture the experiences of employees in other regions, sectors, or demographic groups. Additionally, as the data were collected at a single point in time, the study's design does not allow for clear causal inferences between sustainable leadership, ethical climate, and counterproductive work behaviors. The cross-sectional nature of the data limits the ability to explore dynamic or longitudinal relationships among these variables. For future research, larger and more diverse samples that encompass various cultural, sectoral, and geographic contexts could enhance the understanding of these relationships. Longitudinal studies could also provide insights into the causal mechanisms and temporal dynamics among sustainable leadership, ethical climate, and counterproductive work behaviors, offering a more comprehensive perspective.

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Examination of Consumer Perceptions Regarding Productive Artificial Intelligence Applications: A Qualitative Study on the Case of ChatGPT

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Abstract

This research intends to examine the perceptions of consumers who use artificial intelligence applications towards these applications and to examine the perceptions, preferences, and usage experiences of users towards artificial intelligence applications from the perspective of marketing and consumer behavior. In line with this purpose, the qualitative analysis method was picked as the analytical approach in the investigation. The sample consists of a total of 25 participants with different demographic characteristics who are experienced in artificial intelligence applications. The information gathered from the participants through interviews was analyzed through the MAXQDA statistical analysis program, and descriptive content analysis was performed. In the study's findings, 8 different codes were identified, and the relationships between the codes were analyzed. "Speed," 'Benefit' (perceived performance), and 'Convenience' (perceived ease of use) are the themes that stand out positively in consumers' perceptions of productive artificial intelligence applications. On the other hand, "Distrust" (perceived risk) is a negative theme. The study's findings reveal consumer perceptions and expectations by examining the rapidly developing artificial intelligence technology from the consumers' perspective. This information obtained for consumers using artificial intelligence offers important solution suggestions for artificial intelligence developers and businesses. Furthermore, the findings obtained in this study provide a different perspective for future studies on this subject.

Keywords: Consumer Behavior, Digital Marketing, Artificial Intelligence, Consumer Perception

JEL Codes: M30, M31, M39

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Introduction

Consumers acquire tangible items and digital services (Kotler & Armstrong, 2010); thus, people utilizing AI apps become consumers of these applications by engaging with a service or experience. Belk (2013) also regards individuals as "consumers" in their engagement with digital services in the digital realm. Conversely, as AI is engineered to "learn" and "evolve" from data produced by digital technologies associated with consumer interactions, the engagements of AI users likewise amplify consumer interactions (Olan et al., 2021).

In their study, Rust and Huang (2014) examine the effects of artificial intelligence in terms of the transformation of marketing science, positioning the users of these technologies as active consumers and expressing the interactions of users as an extension of consumer behavior. Artificial intelligence technologies can collect information about users' profiles and behaviors and create consumer segmentation based on this data. Thus, it can provide realistic information about consumer behavior (Cannella, 2018). On the other hand, chatbots, which attract attention in artificial intelligence applications, have become one of the most influential modern tools for digital marketing experts by improving the user experience. Chatbot applications are used in many areas, such as banking, health, tourism, online shopping, and customer service (Savanur et al., 2021).

OpenAI, a leading AI technology company, launched ChatGPT, a versatile chatbot for communicating with service users and consumers, In November 2022; by January 2023, around 13 million users engaged with ChatGPT every day (Wang et al., 2023). Businesses and AI developers constantly try to improve AI capabilities and applications to increase users' adoption and experience of AI technologies (Cheng et al., 2022). At this point, users' perceptions, desires, and expectations towards these applications are important. Existing studies focus on how AI technologies can be used in marketing, but the effects of these applications on users have not been sufficiently investigated.

In this direction, the study aims to examine the perceptions of individuals who use artificial intelligence applications; these applications are grounded in the Unified Theory of Technology Acceptance and Use, which is frequently used in marketing research. The research seeks to investigate AI users' attitudes, preferences, and usage experiences towards AI applications from the perspective of marketing and consumer behavior by considering AI users as consumers. To attain this objective, it investigates the perceptions, intentions, and behaviors of consumers who use the ChatGPT branded AI-supported chatbot, a sub-brand of the OpenAI brand, towards this brand through a qualitative analysis method. Artificial intelligence users can develop preferences for applications by making choices like other consumers of products and services. They can also provide feedback on their satisfaction or dissatisfaction after using these applications and develop purchase/non-purchase decisions for these applications. Analyzing users' perceptions/attitudes, desires, and expectations of artificial intelligence applications is strategically important for businesses and marketers. Because the development, use, and marketing of these technologies are also about responding to users' needs. Therefore, it is imperative to examine users from the perspective of consumer behavior. In order to offer a new perspective to the literature, the study aims to present a more comprehensive consumer profile by differentiating from traditional consumer behavior studies and including AI users in this scope. It also aims to provide in-depth information about users for businesses and artificial intelligence developers to improve themselves in this field and to provide the information they need.

In the study, first of all, a conceptual framework was created, and the research on the subject was examined in detail under the literature review title. Under the "Marketing in the Age of Artificial Intelligence" title, the relationship between artificial intelligence applications and marketing is examined, and the relationship between the ChatGPT artificial intelligence application, which is the research subject, and consumer behavior is also examined. Information about the Unified Theory of Technology Acceptance and Use on which the study is based was given, and the analysis section of the study was started. In the study, Code Frequency Analysis, Code Relationships Browser, Code-Based Frequency Analysis, Code Theory Model (Single Case Model), and Word Cloud analyses were performed using the qualitative analysis method, and the figures and results were presented in the findings section. In the discussion section, the results of previous studies and the results of the current study were evaluated, and similarities and differences were examined. In the conclusion section, important solution suggestions are presented for businesses and artificial intelligence developers based on the findings obtained in the study.

Conceptual Framework and Literature Review

The literature on the subject was conducted through marketing-related studies. In particular, the studies conducted on consumer relationships with ChatGPT, one of the uses of artificial intelligence, have been thoroughly investigated. Zhou et al. (2023) examine the effect of ChatGPT on marketing; Wu et al. (2022) focus on artificial intelligence advertising by examining consumers' perceptions and conversations about artificial intelligence on Twitter, one of the social media platforms.

Wahid et al. (2023) analyze artificial intelligence in terms of content marketing and reveal the implications of artificial intelligence on content creation, digital marketing, and customer interaction. Hussain et al. (2024) concluded that content related to ChatGPT increased audience interaction on YouTube and argued that people are interested in this technology in content creation.

Paul et al. (2023) examined ChatGPT, one of the artificial intelligence applications, with its advantages and pitfalls for consumers and made suggestions for future research. Lee (2023) analyzed the impact of ChatGPT on consumer perceptions and marketing. Kim et al. (2023) examined the recommendations of ChatGPT in terms of consumer perceptions. Again, while Brand et al. (2023) examined consumer perceptions and preferences through large language models, Kirshner (2024) investigated ChatGPT and its impact on consumer recommendations. Slaton and Pookulangara (2024) emphasized the implications of artificial intelligence applications on consumers by investigating the social media marketing communication of luxury brands and the interest of consumers. Damaševičius and Zailskaitė-Jakštė (2024) investigated AI-supported consumer engagement.

McAlister et al. (2023) examine ChatGPT's ethical implications and potential hazards in marketing. Rivas & Zhao (2023) highlight the advantages of ChatGPT in marketing and underscore its ethical assessment. They contend that the ongoing advancement of artificial intelligence can change the field upon resolving ethical dilemmas. Niu and Mvondo (2024) argue that the quality of information plays a crucial role in improving consumer satisfaction and perceived utility. Moreover, perceived utility and technological curiosity also influence consumer pleasure. The study's primary conclusion pertains to brand managers and marketers who must consistently evaluate the chatbot's efficacy to guarantee that the information disseminated is pertinent, dependable, succinct, and promptly sent. It also highlights ethical concerns.

Fraiwan and Khasawneh (2023) drew attention to the future impact of ChatGPT by investigating its applications in areas such as education, engineering, health, and marketing. Bughin (2023) examined the use, advantages, and risks of productive artificial intelligence technology in marketing. Arviani et al. (2023) examined how ChatGPT can be used in marketing communication and concluded that businesses can gain advantages by using ChatGPT in their marketing strategies. Talarico (2023) analyzed ChatGPT in the context of marketing communication and marketers' perceptions regarding this technology. Jain et al. (2023) examined the benefits and obstacles of employing ChatGPT in marketing and offered recommendations for its application in marketing strategies.

Sudirjo et al. (2023) examine the effects of ChatGPT in improving customer emotional analysis. He concluded that businesses could better connect with their customers by utilizing this technology. Abdelkader (2023) examined ChatGPT and moderator roles in creating customer experience in digital marketing and stated that ChatGPT improves customer experience. Again, Kumar et al. (2023) argue that customer experience development will be improved by augmented and virtual reality technologies together with ChatGPT. Bushell (2023) argues that ChatGPT can transform customer interaction and insights. Orzoł & Szopik-Depczyńska (2023) concluded through a case study that ChatGPT creates better customer service in e-commerce, increased interaction, and customer loyalty. Agarwal et al. (2020) point out that customer satisfaction and customer loyalty can be achieved by providing personalized service to customers through artificial intelligence. Huang (2023) emphasizes that ChatGPT will optimize customer interaction and marketing activities in digital marketing and online shopping.

Şentürk et al. (2023) investigated the correlation between artificial intelligence and digital marketing via publications published in the Web of Science. Xu et al. (2023) examined the influence of ChatGPT on search engines and determined that the evolution of search engines has expedited.

Huh et al. (2023) contend that ChatGPT has the potential to transform these sectors in the future through its application in advertising and education. Mutoffar et al. (2023) contend that ChatGPT is beneficial for online marketing and the promotion of SMEs, while Gołąb-Andrzejak (2023) asserts that ChatGPT will enhance the effectiveness and efficiency of digital advertising efforts. Da Silva et al. (2023) analyzed ChatGPT concerning cultural marketing, whereas Glesner and Tvrdišić (2023) investigated both cultural marketing and plagiarism.

Fusté-Forné and Orea-Giner (2023) investigated consumers' motivations for using ChatGPT in gastronomy tourism. Jolly Masih (2023) stated that there may be significant developments in the food industry if artificial intelligence and ChatGPT are used in food marketing strategy. Mich & Garigliano (2023) and Zhang & Prebensen (2023) reveal the effects of ChatGPT in tourism marketing and Gursoy et al. (2023) in the tourism industry. Gulati et al. (2024) point out that using ChatGPT in higher education will be important in the future.

In recent years, artificial intelligence applications have emerged as a significant domain of study. However, it may be challenging to say that the literature is fully formed. In particular, it can be observed that studies on consumer behavior are insufficient. Although there are some studies on consumers' perceptions, customer experience, and adoption of artificial intelligence applications, in-depth analyses are needed in this field. This research seeks to

comprehend the underlying reasons behind these perceptions and motivations by examining consumers' attitudes/perceptions and motivations regarding using artificial intelligence in more detail. In this direction, the findings obtained using qualitative research methods on consumers who are experts in using ChatGPT, one of the artificial intelligence applications, will bring a different perspective to the knowledge in the literature. In addition, the study reveals its originality in this way.

Marketing in the Era of Artificial Intelligence

In recent years, technologies such as blockchain, the Internet of Things, and artificial intelligence technologies have transformed corporate processes. Artificial intelligence (AI) is the most recent and potent disruptive technology among these revolutionary technologies. Nowadays, it has a significant impact and potential in many sectors, such as production, medicine, health, agriculture, logistics, and marketing.

Marketing is undergoing significant evolution due to advancements in artificial intelligence technologies. Artificial Intelligence has numerous opportunities, including the acquisition of insights, hyper-personalization, enhancement of customer experience, provision of superior customer service, reduction of operating expenses, and augmentation of efficiency (Akyüz & Maynacıoğlu, 2021; Jarek & Mazurek, 2019). Technological advancements have continually led to substantial changes in marketing evolution, demonstrating that marketing may effectively partner with artificial intelligence to provide significant results (Siau, 2017; Wirth, 2018).

Nine critical ways of using AI in marketing are summarized: conversational AI, content generation, audience segmentation, paid ad management, personalization dynamic pricing, sales forecasting, predictive analytics, and recommendation engines (Chen et al., 2021).

Artificial intelligence has found a wide range of applications in marketing. For example, Amazon.com automates delivery processes with Prime Air using drones. Domino's Pizza is experimenting with autonomous vehicles and delivery robots for customer pizza delivery. RedBalloon uses Albert's Artificial Intelligence marketing platform to recruit and engage new clientele. Replika, an artificial intelligence chatbot, offers emotional assistance by emulating users' communication patterns. These instances illustrate how artificial intelligence can profoundly transform the future of marketing (Davenport et al., 2020).

The swift advancement of artificial intelligence applications has generated significant interest and expectation in marketing among both scholars and practitioners. In addition to being a highly studied subject in academic studies, it is also used in many ways in marketing. In terms of product and promotion, it can create higher quality content in a shorter time than people. By collecting and analyzing large volumes of data with ChatGPT, consumers' feedback can be analyzed (Zielinski et al., 2023). Consequently, marketing research can be conducted more effectively to comprehend consumers' opinions and attitudes regarding marketing efforts. Personalized content advertisements and customer services that will provide 24/7 support can be carried out with chatbots. Therefore, transaction costs may be reduced, and problem-solving can become more efficient. Similarly, it is expected that the transactions carried out with ChatGPT in marketing will be developed and increase even more over time (Rivas & Zhao, 2023).

Alongside the advantages offered by ChatGPT in marketing, it also entails specific hazards. Artificial intelligence marketing systems like ChatGPT may source information from unreliable origins, resulting in the dissemination of erroneous and obsolete data. Similar and non-homogenous responses may come from ChatGPT for the requested actions. Thus, marketers who attach importance to innovation may face problems. In addition to all these, concerns such as privacy violations and ethics also draw attention. It is predicted that these risks can be reduced with the excellent design of ChatGPT and future improvements (Stone et al., 2020; Yara et al., 2021; Sun & Hoelscher, 2023).

ChatGPT and Consumer Behavior

Since consumers are the focus of marketing strategies, consumer behavior analysis is vital for businesses. Studies on consumer behavior have been conducted in marketing for years, but in recent years, consumer behavior has been examined more in terms of artificial intelligence. It is seen that artificial intelligence technology offers new opportunities for understanding consumer behavior. Organizations utilizing big data have acquired a substantial advantage in formulating marketing and customer service strategies by forecasting consumer behavior through artificial intelligence technology (Wibowo & Ariyanti, 2023).

Since the development of technology can change consumer behavior, businesses are making great efforts to create customer satisfaction and loyalty. At this point, artificial intelligence can help businesses with marketing strategies and consumer behavior analysis, thus increasing sales (Gkikas & Thedoridis, 2022). At this point, the use of artificial intelligence in consumer behavior and customer experience is increasing daily. By offering personalized experiences to consumers, consumers' satisfaction and loyalty can be gained (Abdelkader, 2023).

Artificial intelligence is crucial in comprehending and shaping customer behavior. AI evaluates extensive datasets to deliver immediate and actionable

consumer insights when integrated with associated technologies like big data and machine learning. These insights enable organizations to tailor their products and services to client preferences (Kumar et al., 2023).

Consumer attitudes are expressed through trust, satisfaction, and loyalty to a product or service. Product and service prices can significantly influence consumer behavior; however, even if consumers are loyal to a brand, price changes may cause opportunity costs. At this point, sharing consumers' trust in a product or service through social media is very important for both consumers and brands. Therefore, businesses and marketers should utilize artificial intelligence to understand consumers' reactions to product or service changes (Olan et al., 2021).

Unified Theory of Technology Acceptance and Use

The Technology Acceptance Model (TAM), one of the most common models for explaining the use of new technologies and purchasing tendencies, was developed by Davis in 1985, based on Fishbein's model of human behavior. TAM suggests that a user's attitude towards using a system is the most critical determinant of the actual use of the system. Over time, the model has been criticized for not considering the factors hindering technology adoption, and improved versions have been proposed. Venkatesh (2000) developed TAM 2 in light of these criticisms and added factors such as perceived usefulness to the model. Venkatesh et al. (2003) subsequently established the Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm to clarify technology acceptance and usage (Zalluhoğlu et al., 2023).

The probability of technology adoption is linked to the direct impact of four fundamental constructs: performance expectancy, effort expectancy, social influence, and facilitating factors (Venkatesh et al., 2016). Alongside these four fundamental categories, hedonic motivation is recognized as the degree to which an individual experiences enjoyment or pleasure from a new technology (Beh et al., 2021).

Performance expectancy denotes the conviction that individuals will enhance their work performance through the utilization of technology. In contrast, the degree of ease of using technology refers to the expectation of effort. While the adequacy of the infrastructure to use the technology is accepted as a facilitating condition, the attitudes and thoughts of individuals toward other people's use of this technology express the social effect (Venkatesh et al., 2003). It is stated that factors such as hedonic value, price, and habit are added to these basic structures (Venkatesh et al., 2003).

The adoption of artificial intelligence technologies is essential for businesses. At this point, businesses' resources are also necessary. It is also seen that many companies are not strategically ready to adopt artificial intelligence (Ransbotham et al., 2017). This rapidly developing technology was examined from a marketing perspective and aimed to provide essential results to businesses, and research was conducted with a focus on the Unified Technology Acceptance and Use Theory.

The Unified Theory of Technology Acceptance and Use has been supported by empirical research and outperformed other individual models in explaining individuals' intentions to use information technologies (Momani, 2020). In this direction, the study examines the Unified Theory of Acceptance and Use of Technology by focusing on it.

Research Methodology

A qualitative method was chosen as the analysis method in the research, and the interview technique was used. Qualitative research is defined as the comprehensive presentation of data acquired through methods such as observation, interviews, and document analysis. Notwithstanding its challenges, qualitative research is a potent methodology capable of yielding significant outcomes in the social sciences. The analysis was carried out through MAXQDA statistical analysis programs. The number of samples in qualitative research may be less than in quantitative research. When the number of samples is increased in qualitative research, primarily observations and interviews, it may become repeated after a particular stage (Türk, 2023). In this direction, 25 participants who were actively experienced in using ChatGPT were targeted as the study sample. Interviews with the participants were conducted face-to-face. The analysis of the participants' demographic data revealed a composition of 11 females and 14 males, aged between 23 and 42 years. Among the participants, opinions of people from different professions, such as academicians, doctoral and graduate students, public and private sector employees, marketing managers, pilots, and housewives, were taken. Data collection was carried out in March and April 2024.

The inquiries posed to the participants were grounded in the Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm established by Venkatesh et al. (2003). In this direction, the question about the priority and reasons for users to use ChatGPT is directed toward performance expectations from the Unified Technology Acceptance Model variables. The difficulties encountered in using ChatGPT are analyzed with the perceived risk variable, the areas that are thought to be most helpful are analyzed with the effort expectation variable, and the hedonic value variable is analyzed with the feature that users like the most. The question about the areas in which ChatGPT should be improved is associated with the desire for improvement and per-

formance expectancy in terms of providing benefits to the user. While hedonic value and performance expectancy are associated with the question about users' opinions on the advantages of ChatGPT, the perceived risk variable is associated with the question about its disadvantages.

Variables of the Study

Performance expectancy, or perceived performance, is defined as "the degree to which an individual perceives that using the system will improve their job performance." Along with performance expectancy, effort expectancy is also one of the study's variables. Perceived ease of use is expressed by effort expectancy (Venkatesh et al., 2003).

Perceived enjoyment, hedonic motivation, and pleasure themes are generally accepted as hedonic values (Chitturi et al., 2007). Consumers' concerns about the possibility of unpleasant consequences are expressed as perceived risks. Schierz et al. (2010) also define perceived risk as loss expectancy. The greater the loss expectations, the higher the degree of risk consumers perceive (Schierz et al., 2010).

Trust is characterized as "the readiness of one party to be susceptible to the actions of another party, predicated on the anticipation that the latter will execute a specific action significant to the trustor, irrespective of the former's capacity to oversee or regulate" (Mayer et al., 1995). Consumers' perceptions of the opinions of other consumers are expressed as social pressure. Although it has been expressed differently in the literature as subjective norms, social factors, and normative pressure, social pressure is

seen as the perceived social influence of consumers (Belanche et al., 2019; Lin et al., 2020).

Individuals' judgments concerning engagement in behavior are typically defined as behavior by Ajzen (1991). On the other hand, in the concept of behavior in the study and the literature, consumers' attitudes toward artificial intelligence are expressed as behavior (Ajzen, 1991; Zhong et al., 2021). Individuals' willingness to use AI-based platforms is defined as behavioral intention. Behavioral intention, which is considered the intention of users to adopt AI-supported chatbots, can also be seen as the desire to use new technologies (Sohn & Kwon, 2020; Maseeh et al., 2021; Mehta et al., 2022).

The measurement of how often a behavior is performed or the approximate number of times a behavior is repeated in a certain period is considered actual usage (Davis et al., 1989). The literature has explored the topic of actual usage as the prevalent application of technology, including the Internet of Things, artificial intelligence, and mobile banking (Chatterjee & Bhattacharjee, 2020; Elhajjar et al., 2021). Customer satisfaction refers to the satisfaction of consumers. In the study, it refers to the satisfaction of consumers with using it, while perceived personalization is examined as ChatGPT providing personal responses to the person's requests and needs.

Findings

The findings are presented through code frequency analysis, code-based frequency analysis, code relationships browser, code theory model (single case model), and word cloud forms.

Code System	Inconsistency	Asociality	Distrust	Speed	Benefit	Productivity	Convenience	Creativity
Inconsistency			42					
Asociality			22					
Distrust	42	22						
Speed					74	18	67	36
Benefit				74		17	47	35
Productivity				18	17		7	16
Convenience				67	47	7		26
Creativity				36	35	16	26	

Figure 1. Code Frequency Analysis

The code frequency analysis gives information about the codes that emerged from the participants' answers and the frequency of these codes. In other words, according to the perspectives of the specialists engaged in the research, the most frequently mentioned concept by the participants expresses what they make their relationships about. In expressing this, it provides evidence through quantitative data. When analyzing the code frequency analysis, it was found that the relationship intensity was the highest positive relationship between 'speed' and

'benefit' (74). While the relationship between 'Convenience' and 'Speed' (67) ranks second in terms of positivity, the relationship between 'Benefit' and 'Convenience' is then observed.

However, an important observation in this table is the direction and intensity of the negative observations made by the experts participating in the research. Evaluated from this perspective, the most negative relationship is the relationship between 'Distrust' and 'Inconsistency' (42).
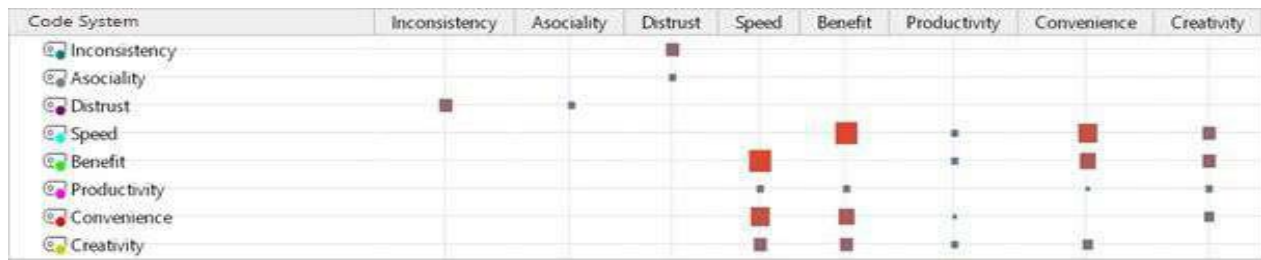
Figure 2. Code Relationships Browser

In Figure 2, the statistical analysis program MAXQ-DA was used to determine the codes' relationships and examine the frequency with which these codes were used together in the same sentence or paragraph. The relationships between the codes can be interpreted both qualitatively and quantitatively. These relationships were revealed by the perceptions and evaluations of the experts who participated in the study and who experienced and actively used ChatGPT. The dimensions of the dots in the illustration signify the frequency of mention.
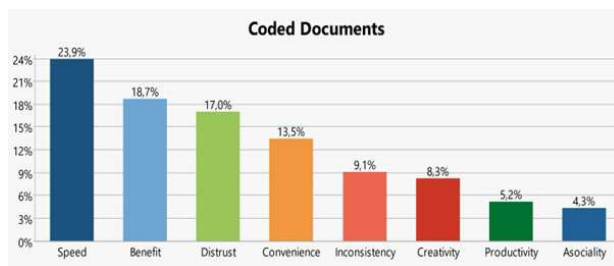

Figure 3. Code-Based Frequency Analysis

Figure 3 shows the most prominent factors in the discussions and comments about consumers' experiences and perceptions of ChatGPT use. The main feature of this finding is that the key elements in the research are revealed in line with the views obtained from the focus group experiences. Looking at the research data, we can see that eight codes are emphasized with different intensities. The code 'speed' is in the first place, while 'benefit' is in second place, followed by 'Distrust.' The results in the code relationships also support these findings. While the codes 'Speed' and 'Benefit' are prominent, the code 'Distrust' stands out in the code-based frequency analysis. While 'speed' and 'benefit' are prominent as positive concepts in participants' perceptions of ChatGPT, 'Distrust,' in contrast, highlights the theme that participants see as negative. Although the percentage of emphasis is low, the codes 'Inconsistency' (9.1%) and 'Asociality' (4.3%) also emerged due to participants' negative perceptions.

The main emphasis of this analysis is related to the density of explanations for each code and the answers given by the experts participating in the research. In other words, each participant emphasized the code "Speed," with a rate of 23.9% in all research documents. When evaluated from this

perspective, the phenomenon code of the research was "Speed" with a positive perspective in the use of ChatGPT, while it was the code "Distrust" with a negative perspective with 17%.

Figure 4 shows the Code Theory Model (Single Case Model) from the analysis findings. This model aims to present a detailed and comprehensive analysis of a single case. The interviews are analyzed independently of each other as if they were evaluated on a single case. In other words, when examining generative artificial intelligence applications through consumer perceptions, when the different opinions put forward by the experts participating in the research are brought together and evaluated as the opinion of a single person, a finding is made regarding the answer to the question "what is the main idea?"
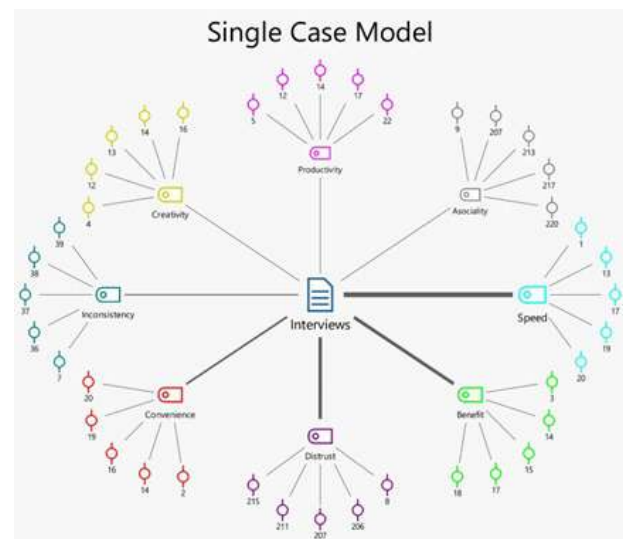
Figure 4. Code Theory Model (Single Case Model)

The figure shows the main themes discussed in the interviews and the details of these themes. In addition, the line thicknesses of the themes that are the focal points also indicate the density of the themes. This analysis supports the other findings and shows that the theme "Speed" extends to "Interviews" with a thicker line than the other themes. It is followed by "Benefit" and then "Distrust". Although this finding emerging from the research is a common idea data, it is seen that it is consistent with the frequency density of individual ideas presented in Figure 3. In this respect, the different findings of the research are consistent within themselves.

Figure 5. Word Cloud

Another research finding is the word cloud analysis shown in Figure 5. In this way, words are visually presented in different tones in size, thickness, and color tones. These features show the frequently used words based on the interview participants' statements. The main subject of the study, "ChatGPT," appears to be the most frequently used concept. In addition, the frequency of use of concepts such as "fast," "speed," "easy," and "creativity" draws attention as concepts that support the participants' perceptions of ChatGPT. This analysis also supports other findings. In addition, the result in the word cloud indicates that the participants have sufficient conceptual knowledge about generative artificial intelligence applications.

Upon examination of the findings derived from the analysis in terms of the combined technology acceptance model variables, the "Benefit" code expresses the performance expectation, that is, the perceived performance thought of the consumers. The participants think they will benefit from their work by using ChatGPT. The "Benefit" code can also be related to customer satisfaction. It can represent the consumer's sense of satisfaction, in other words, the users' perceived satisfaction and choice satisfaction.

The "Speed" code can express performance expectations like the "benefit" code. The fact that participants save time thanks to speed and perceive it as beneficial shows that this technology can benefit consumers with speed.

The "Distrust" code represents perceived risk. It expresses the concerns of the experts participating in the research about using ChatGPT and the situations they see as disadvantages. The "Asociality" code also reveals the negative perceptions that people can become asocial as a result of using ChatGPT. Similarly, the "Inconsistency" code emerges as another negative theme resulting from the participants' perceived risk.

The participants evaluated the codes "Creativity" and "Productivity" from many perspectives. The perceived performance of ChatGPT through providing benefits, perceived ease of use, aesthetic, experiential, emotional, and pleasure-related benefits (Hedonic Value-Perceived pleasure) that may cause

these codes to emerge, and speed that may affect these codes were included in the process. Multiple factors were included in the process, resulting in the emergence of these themes. The code "Convenience" expresses effort expectation, in other words, perceived ease of use. It can also be expressed as the degree of perception that the participants will find ChatGPT easy to use.

Discussion

The experts who participated in the research highlighted that the most important feature of ChatGPT in the relevant subject is that they can save time and that it is related to time management and satisfaction as a result of their work. This situation indicates that they have a positive psychological output benefit. The creativity and productivity situation is also seen as positive. However, the same experts emphasized that the information obtained should be checked, and the risk of the information not being reliable should be taken into consideration. They also highlighted that this could be related to ethical problems such as protecting personal data, internet addiction, and plagiarism. At this point, the study findings show that consumers focus on hedonic motivation, albeit partially, in addition to perceived ease of use, perceived benefit, perceived risk, and customer satisfaction.

They see ChatGPT's most important feature as saving time for individuals. Immediately after that, customer satisfaction, service quality, and efficiency gained from time management come to the fore. Then, a code drew attention as an individual concern. With the code "Distrust," they emphasized that using ChatGPT could cause negative situations such as personal data protection problems, fraud, addiction, and inconsistent and outdated information, as well as guidance. Situations such as asociality, obesity, anxiety, lack of communication, fraud, plagiarism, and ethics emerge as negative situations expressed by consumers.

When individuals see a technology's value, they are inclined to cultivate a favorable disposition toward its utilization. Kasilingam (2023) determined that opinions toward chatbots were significantly influenced by perceived utility, simplicity of use, enjoyment, price sensitivity, danger, and individual innovativeness (Kasilingam, 2020). Similar results emerge in health students' attitudes towards ChatGPT in the Sallam et al. (2023) study. The speed, benefit, and convenience codes that stand out in the study findings overlap with the results of perceived benefit and ease of use in these studies. Saif et al. (2024), similar to the findings of this study, concluded that students' perceived ease of use and usefulness associated with ChatGPT contributes to shaping their positive attitudes toward using ChatGPT. However, unlike the results of this study, they concluded that

ease of use and usefulness factors play a role in reducing stress levels. Zhang and Wang (2023) concluded that, from the standpoint of consumer emotions, AI products influence consumers' purchase intentions and brand evaluations, with perceived usefulness and perceived enjoyment serving as mediators in this relationship. However, these findings also differ from the results of Tiwari et al. (2024) and Abdul-Halim et al. (2022). Because Tiwari et al. (2024) concluded that perceived ease of use was not an important determining factor in students' adoption and use of ChatGPT.

A study by Shahzad et al. (2024) on ChatGPT in higher education found that perceived ease of use, utility, and intelligence significantly moderate the association between awareness of ChatGPT and the intention to embrace this technology. Moreover, perceived trust strongly influences the association between awareness of ChatGPT and perceived ease of use, usefulness, and intelligence (Shahzad et al., 2024). The results of this study correspond with the variable of perceived ease of use.

In their studies, Tiwari et al. (2024), Mishra et al. (2022), and Chang et al. (2024), who revealed that hedonic motivation could be effective in users developing positive attitudes towards ChatGPT, stated that users found the use of ChatGPT enjoyable and fun. In the study, the participants' views on ChatGPT, which they found enjoyable and fun, together with the creativity and productivity codes, are parallel to those of these studies.

While improving marketing decisions and automating customer service can increase revenue and reduce costs, it is also claimed that consumers do not trust AI's decisions, answers, and suggestions and have a very negative attitude toward AI applications in marketing (Davenport et al., 2020). Likewise, Chen et al. (2021) determined that participants predominantly exhibited a neutral or mildly unfavorable sentiment towards AI marketing communication applications in their research. This may be linked to the prominent topic of distrust evident in the study findings.

Regarding the outcome of the distrust theme, which is seen as negative in the study, consumers' emerging biases can be due to two main reasons, such as consumers making predictions based on internally generated data and consumers' behavioral biases (Abrardi et al., 2022). Privacy regulations are important for consumers' power over businesses or brands. Consumer privacy and consumer information's use and protection levels may cause a debate on property rights. Because behavioral patterns of consumers can also emerge through personal information, this situation is open to manipulation (Acquisti et al., 2015). Iqbal et al. (2022) determined faculty members' negative perceptions and attitudes toward using ChatGPT. Potential risks such as cheating and plagiarism were stated as perceived risks. Rohden and Zeferino (2023) draw attention to the effect of trust in reducing privacy concerns and risk perception. In the study, concerns about issues such as insecurity, asociality, inconsistency, and ethical and personal security violations are consistent with the results of these studies and draw attention to perceived risk.

Although other studies have addressed sub-dimensional patterns, these are empirical findings regarding the scales used in quantitative research and the sub-dimensions of these scales. However, in contrast to these, this study employed a qualitative method; the data obtained were thematically separated and conceptually coded. Therefore, it may not be possible to compare with the generalizability patterns of quantitative research because it is qualitative research. However, when taken together, they may have the power to create a different perspective on the literature.

Conclusion

Consumers' use of generative AI applications is increasing day by day. The impact of AI is clearly felt in many areas. Generative AI applications are also widely used in marketing (Stone et al., 2020). Dawid et al. (2017) contend that AI technology beneficially influences consumer behavior and sentiments and that consumer interactions with AI gadgets progressively enhance marketing research.

First of all, marketers are expected to add artificial intelligence applications that can meet consumers' expectations to their strategies. Consumers' intentions to use productive artificial intelligence applications are shifting from utilitarian motivation to hedonic motivation today. Marketers should also consider this orientation (Dinh & Mark, 2023). On the other hand, consumers' perceptions of artificial intelligence applications are also changing daily. Therefore, productive artificial intelligence applications are becoming more important for businesses. From another perspective, artificial intelligence is strategically important for all global players to achieve economic gains in the future (Pan et al., 2023).

Businesses can improve their digital marketing strategies by optimizing the impact of ChatGPT on consumer experience and customizing it according to consumer demands. From an academic perspective, ChatGPT needs to consider consumer expectations to improve consumer experience in digital marketing (Abdelkader, 2023). At this point, the study draws attention to the concept of "Distrust" as well as the emphasis consumers place on the concepts of "Speed," "Benefit," and "Convenience." As a result of consumers' perceptions of productive artificial intelligence applications, they expect this technology to be fast, useful, easy, creative, and productive. On the other hand, they also have reservations about

issues such as insecurity, asociality, inconsistency, violation of ethics, and personal security. The study findings and comments recommend businesses to pay attention to analyzing consumer behavior well with artificial intelligence applications in digital marketing strategies, improving consumer experiences, and providing confidence in issues that consumers are hesitant about because meeting consumer expectations by analyzing consumer behavior data can be effective in purchasing decisions and brand loyalty (Olan et al., 2021; Jain et al., 2023; Krakowski et al., 2023).

When the situation revealed by the study's findings is examined, we would like to draw attention to the fact that consumers are sensitive about time-saving and benefits. It is seen that when consumers think that they will benefit from artificial intelligence applications and that they can realize this in a short time, their usage tendencies increase. To respond to consumers' expectations, businesses can focus on strategies to provide speed and time savings by emphasizing the benefits of their services. On the other hand, if the strategies are to be created by considering the situations that consumers are concerned about, artificial intelligence applications give consumers a sense of trust, and there may be positive returns for businesses.

Generative AI applications have affected many disciplines. Their effects are also seen in terms of marketing discipline. In addition to its effectiveness in marketing research, it can be effective in many points related to the consumer. However, negative situations such as inaccuracies, privacy violations, and ethical concerns also affect consumers. Developing generative AI applications is thought to eliminate these negative situations and produce more successful and harmonious work with people in the future.

Limitations of the Study and Future Studies

The study was conducted on ChatGPT, a developing generative artificial intelligence application. Considering the increase in generative artificial intelligence applications every day, the fact that the study was conducted only on ChatGPT can be considered a limitation. On the other hand, the study's participants consisted of 25 people with different demographic characteristics. Considering that the participants did not have a specific field or expertise, the number of participants and the period in which the study was conducted may be insufficient compared to future studies; we can consider this situation as a limitation of the study.

The results of this study provide valuable information about consumer perceptions of ChatGPT. From this information, topics such as consumer behavior, customer experience, customer satisfaction, and lo-

yalty can be investigated. Nonetheless, numerous inquiries regarding the influence of ChatGPT on customer experience remain unresolved. Further research is necessary to investigate these inquiries and enhance our comprehension of ChatGPT's capacity to transform digital marketing.

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Research Article

Risks and Constraints Faced by Solo Female Travelers: A Conceptual Overview[1] doi

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Abstract

The study aims to provide a conceptual framework for considering the risks and constraints encountered by solo female travelers. This study reviewed and synthesized relevant literature to identify and categorize the various types of risks and constraints that influence solo travel behavior among females. The studies were selected by convenience purposive sampling method. Firstly, the studies were scanned with the keywords related to risks and constraints in solo female travels. Secondly, 43 studies, conducted between 2000 and 2024 and included related keywords in their titles and abstracts, were included in the review. The review was accomplished by thematic content analysis on two main themes. In this line, the authors defined ten sub-themes regarding risks and constraints in solo female travels. The seven sub-themes for risks were explained as sexual-related, cultural and social, gender-related, physical and financial, political unrest and terrorism, performance, and psychological. The three sub-themes for constraints were examined as personal, interpersonal, and structural. The findings revealed that solo female travelers most commonly encounter sexual-related, physical and financial, performance, cultural and social risks. Additionally, these travelers primarily experience personal and interpersonal constraints. By focusing specifically on gender-based differences in solo travel patterns, this study makes a valuable contribution to the literature on risks and constraints, paving the way for future research in the field of solo travel.

Keywords: Solo Female Travelers, Travel Risks, Travel Constraints, Solo Travel Behavior, Women Travelling Alone .

JEL Codes: L83, D6

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Ceyda Kolkesen / Meltem Altınay Özdemir

Introduction

Reflecting its growth and evolution with the tourism sector, solo travelling behavior has become a prominent topic in recent tourism literature (Aslan, 2023; Karagöz, Işık, Dogru, & Zhang, 2021; Mâni & Jose, 2020; Tükenmez, 2019; Yang, Khoo-Lattimore, & Arcodia, 2018a; 2018b). Several international travel reports, such as the Klook Travel Report (2023) and the MMGY Global Travel Report (2022), have noted that solo travel is increasingly preferred across age groups due to changing living standards and habits (klook.com; mmgyglobal.com). However, while solo travel offers a sense of spiritual, physical, and mental relaxation, it creates certain challenges. In addressing these, several studies have taken a gender-focused perspective, specifically on females' travel behaviors (Mâni & Jose, 2020; Tavakoli & Mura, 2021; Zahedi, 2023) due to the greater risks and constraints that females face when traveling alone (Breda, Santos, Kliček, & Dinis, 2020; Karagöz, Işık, Dogru, & Zhang, 2021; Yang, Khoo-Lattimore, & Arcodia, 2018a; 2018b; Valaja, 2018).

Although these two concepts—risks and constraints—appear similar, they differ contextually. Risk refers to the likelihood of a situation occurring and the potential negative consequences associated with it (Furedi, 2017), for example, the possibility of a solo female traveler being attacked in a dangerous area. Constraints, on the other hand, refer to any obstacle, prohibition, or limitation that restricts a person's freedom, movement, or preferences (Kerstetter, Yen, & Yarnal, 2005), such as restrictions on females travelling alone at night in certain countries or social norms that discourage them from being in specific places. By restricting their freedom, these constraints significantly hinder individuals from achieving their goals. Constraints can arise from both internal (personal) factors and external ones (interpersonal and situational) that females must consider when planning their travels (Crawford & Godbey, 1987).

Conceptualized in this way, risks refer to situations with potentially negative consequences or dangers for individuals. These can have direct impacts, such as physical, emotional, or financial harm, that threaten a female traveler's safety, health, or well-being. Constraints, on the other hand, are shaped by an individual's perceptions and psychological states, whether from actual circumstances or societal expectations, norms, and cultural influences. These constraints manifest as psychological barriers that affect females' travel behaviors and preferences. The two concepts are semantically different in that risks are more tangible and arise from external factors, whereas constraints are more perceptual and emerge on a psychological level.

Previous studies have emphasized the need for further research on the risks and constraints faced by solo female travelers (Aslan, 2023; Aslantürk & Unur, 2019; Tükenmez, 2019; Hosseini, Macias, & Garcia, 2022; Kaba & Emekli, 2018). Accordingly, the present study offers a conceptual perspective on the risks and constraints encountered by females while travelling alone. By synthesizing the findings from previous studies, it aims to enhance the understanding of solo female travel behavior. To do so, the study addresses the following two research questions:

RQ1: What are the risks faced by solo female travelers?

RQ2: What are the constraints faced by solo female travelers?

Theoretical Background

This section addresses the following headings: the concept of risk, risk theories, the concept of constraint, constraint theories, solo travel behavior, reasons for solo travel and females' solo travel behavior.

What means of risk?

Risk can be defined as the possibility of an adverse effect occurring under conditions of uncertainty or when faced with an undesirable situation (Yang & Nair, 2014). While the earliest recorded use of the term risk is believed to date back to the early 1600s (Breakwell, 2014), the concept has evolved significantly in meaning and usage since ancient civilizations, where it was often linked to fate, luck, destiny, and fortune (oed.com), particularly in maritime ventures (Ewald, 1993). Although the precise origin is uncertain, the word is thought to derive from the Italian word risco, meaning peril, or the Greek word rhiza, meaning precipice (Mythen, 2008). In the Middle Ages, risk was linked to courage and adventure rather than the potential for self-destruction (Beck, 1992) and used in marine insurance for the dangers of sea voyages (Ewald, 1993). The insurance industry's growth during the Industrial Revolution necessitated a better understanding of risk through actuarial science. Hence, during the 19th century, "the meaning of risk broadened to include natural events, society, and individual behaviors, freedoms, social relations and was used in both positive and negative contexts" (Ewald, 1993, p. 226). Following World War II, there was increasing awareness of technological and environmental risks, leading to Ulrich Beck's concept of the risk society in the 1980s, which examined how modern societies produce and manage risks. In parallel, the term's meaning shifted to have exclusively negative connotations. Furthermore, Beck's (1992) conceptualization emphasized that, due to globalization, the risks associated with industrialization in contemporary society differ fun-

damentally from traditional dangers in previous eras in that they are more global, particularly nuclear fission and radioactive waste (Beck, 1992). Hence, these risks pose a significant threat to the survival of all living organisms on Earth (Beck, 1992).

Overall, the concept of risk has been used to manage the dangers that arise in various contexts. While its semantic nuances may differ across societies, it has primarily a negative connotation (Valaja, 2018). Hence, Furedi (2017) defines risk as "the probability of occurrence of negativities such as damage, illness, and death that occur with a certain danger" (p. 45). However, because resistance to risks can depend on individual differences, the concept of perceived risk has gained prominence in literature. For example, perceived risk is "the nature and rate of risk that a consumer perceives when considering a particular purchase decision" (Cox & Rich 1964, p. 33). Within this framework, perceived risk is understood as the subjective assessment made by an individual (Deniz & Erciş, 2008), influenced by various interpersonal, individual (e.g., age, income, education, job position, personality, attitudes toward risk), and cultural factors present in the individual's environment (Kotler, 2002).

Risk Theories

The risk theories underlined that the risks have different dimensions. In defining the con-cept, the risk theories offer various frameworks for understanding how individuals, groups, or organizations manage risks, and various perspectives for understanding the economic, individual, social, cultural, and psychological dimensions of risk. This explains that any fac-tor can be perceived as a potential risk. For example, Von Neumann & Morgenstern's (1944) expected utility theory posits that individuals evaluate each possibility, risk, and its effects and select the option with the highest expected utility. Kahneman & Tversky's (1979) pro-spect utility theory refers to the decision-making process when individuals are at risk. The construction of the theory involves some simple expectations. These are exemplified by monetary outcomes and stated probabilities. Nevertheless, the theory can be extended to more complex choices. Prospect theory consists of two steps: the regulation stage and the evaluation stage. First, the regulation stage consists of a preliminary analysis of customers. In the second stage, the regulated expectations are evaluated, and the expectation of the highest value is selected. Then, the organization stage is outlined, and the model of the eval-uation stage is developed.

In addition to these theories, Douglas' (1966) cultural theory posits that individuals' atti-tudes and reactions to risks vary according to the cultural groups and social structures to which they belong. This the-

ory suggests that risk perception differs according to cultural background and social context. The social theory of risk (Douglas & Wildavsky, 1982) pos-its that risk is not solely an individual evaluation process; it must also be evaluated in social and cultural contexts. This theory emphasizes that risk is shaped by cultural symbols, norms and values and that the risk perceptions of different communities vary.

In his theory of risk society, Ulrich Beck argued that modern industrial societies have been replaced by reflexive modernization and that industrial developments have consequences under risk. He stated that the concept of risk is not a modern phenomenon and that those who went on voyages of discovery in the past, such as Columbus, traveled with the awa-re-ness of the personal risks involved in the journey. However, these were not global dangers that would affect all of humanity, such as nuclear fission or radioactive waste that emerged with industrialization. In medieval times, the term risk was associated with notions of cour-age and adventure rather than the threat of self-destruction of all life on earth. According to Beck, these global risks pose a threat to all life on earth. The reason for this is that they are a direct result of industrialization and intensify as they become more globalized (Beck, 1992). Beck stated that risks, unlike the old dangers, are a threatening force of modernization and have consequences related to the globalization of suspicion. These theories offer different perspectives for understanding the economic, individual, social, cultural and psychological dimensions of risk and reveal the potential for any factor to emerge as a risk.

What means of constraint?

The concept of constraint was first defined by Iso-Ahola & Mannell (1985), who argued that constraints arise within a framework of social-personal, social-cultural, and physical factors. They also claimed that there is a negative relationship between perceived constraints and the frequency of satisfying leisure experiences. That is, individuals are happier and more satis-fied when they are less constrained or not constrained at all (Wilson, 2004). Jackson's (1991) theory of leisure defines constraints as "factors that limit the formation of leisure preferences and prevent or prohibit the enjoyment of leisure" (Nyaupane, McCabe, & An-dereck, 2008, p.342). Harrington, Dawson, & Bolla's (1992) theory of constraints in travel and tourism identifies two types: subjective and objective. Subjective constraints are inter-nal obstacles to travel experienced by individuals (e.g., psychological problems); objective constraints are external obstacles (e.g., climate, social problems) (Harrington, Dawson, & Bolla, 1992). Crawford & Godbey (1987) classified constraints regarding leisure into three main types: personal, interpersonal, and stru-

ctural. Personal/intrapersonal constraints stem from individual psychological conditions, including stress, depression, anxiety, and per-ceived self-efficacy; interpersonal constraints arise from social interactions and communica-tions within reference groups such as family, relatives, and friends; structural constraints refer to external factors like climate, transportation, and financial resources, which prevent individuals from realizing their leisure preferences.

Constraint Theories

Constraint theories are conceptualized from social, economic, psychological, physical, spatial, cultural, political, and gender perspectives. Regarding social constraints, Durkheim's (1952) normative order theory and Parsons' (1951) social system theory elucidate how social control mechanisms curtail individual actions. Goffman's (1959) role theory addresses how the roles individuals adopt based on their social positions shape and restrict their behaviors, while Bourdieu's (1986) social capital theory explains how individuals' social networks can limit their access to resources and opportunities.

Economic constraint theories primarily focus on cost, benefit, and resource limitations. For example, Becker's (1976) theory of rational choice posits that individuals make decisions by weighing costs and benefits, suggesting that economic constraints can restrict decision-making. Likewise, Sen's (1999) Capabilities Approach Theory asserts that economic constraints contribute to inequalities in opportunities among individuals.

Psychological constraint theories examine factors like self-efficacy, self-confidence, fear, and anxiety. Bandura's (1997) self-efficacy theory explains how individuals' beliefs regarding their capabilities influence their decisions to engage in specific actions. Lazarus and Folkman's (1984) stress and coping theory suggests that emotional and cognitive factors can restrict individuals' abilities to cope with various situations.

Regarding physical and spatial constraints, Soja's (1989) spatial theory explains how geographical and spatial factors shape and limit individual actions. Regarding cultural and political constraints, Geertz's (1973) cultural interpretation theory argues that cultural norms and traditions impose limitations on individuals' actions, while Foucault's (1977) theories of power and authority posit that legal and political structures play a crucial role in restricting individual behaviors.

Finally, among feminist and gender theories, Butler's (1990) gender theory examines how societal gender roles and expectations constrain individual actions and freedoms, while MacKinnon's (1989) feminist legal theory asserts that gender-based violence and harassment significantly limit females' freedoms. Ta-ken together, these theories enable a multifaceted understanding of the varied sources of constraints that individuals face across different domains of life.

Solo Travel Behavior

The concept of solo travelling emerged in the 1990s (Tükenmez, 2019). Since then, various definitions have emerged without reaching a consensus, reflecting the dynamic and evolving nature of tourism. Otegui-Carles, Araújo-Vila, & Fraiz-Brea. (2022) categorize solo travelers into two types: those who travel alone by default and those who do so by choice. Discussion has mainly focused on the arrival status of an individual. Thus, Laesser, Beritelli, & Bieger. (2009) identify four categories of solo travelers: (i) individuals who live alone and travel independently; (ii) individuals who live alone but choose to join a group or an organized trip; (iii) individuals who do not live alone yet travel solo; and (iv) individuals who do not live alone, travel independently, but participate in a group or organized tour. In line with this variety, Bianchi (2016), for example, defines solo travelers as married or single people who choose to travel on their own for a holiday (p. 197). This definition emphasizes marital status and specifically pertains to leisure travel, excluding business trips or essential travel, such as family visits or health-related journeys. Foo (1999) defines a solo traveler as someone who journeys to a destination independently (as cited in McNamara & Prideaux 2010). Similarly, Wilson (2004) focuses on independent travelers, "referring to a diverse and growing tourism segment with distinct needs and motivations compared to mass and organized tourists" (p. 8). Wilson (2004) characterizes independent travelers as individuals who follow their personal preferences without being tied to any specific tour group. That is, they arrive at their destination alone. Similarly, defines a solo traveler as someone who predominantly spends their time alone on trips without acquaintances, including family or friends (Nguyen, 2018).

Reasons for Solo Travel

Solo travel can offer various benefits, including personal development (Wilson & Harris, 2006), relaxation and experiential learning (Chiang & Jogaratnam, 2006), self-discovery (Mâni & Jose, 2020), adventure (McNamara & Prideaux, 2010), sense of independence (Laesser, Beritelli, & Bieger, 2009; McNamara & Prideaux, 2010; Mehmetoglu, Dann, & Larsen, 2001) as well as liberation and the experience of crossing borders (Pekiner, 2019). Travelling alone has increased its appeal, particularly considering evolving social lifestyles (Chung, Baik, & Lee, 2017). Accordingly, the phenomenon has attracted growing interest in tourism studies in recent years (Karagöz, Işık, Dogru, & Zhang, 2021; Mâni & Jose, 2020; Yang,

Khoo-Lattimore, & Arcodia, 2018a; 2018b).

Although solo travel is generally done as a preference, in some cases, it is a necessity. Those who travel alone out of necessity usually do so for reasons like business (Breda, Santos, Klíček, & Dinis, 2020) or inability to find a travel companion (Mehmetoglu, Dann, & Larsen, 2001). One reason for the growth in solo travel is changes in the preferences of individuals in particular demographic groups (Bianchi, 2016). For example, young people want to stay single longer, while older people want to continue a more active life. Therefore, the changing demographics and lifestyles of modern society (Laesser, Beritelli, & Bieger, 2009) affect individuals' travel decisions and desires. There are various motivations for solo travel. According to Zhang, Zhang, Li, & Shen (2024), solo travel encompasses pleasure-seeking, social, exploratory, and escape-oriented types based on personal values. Nirkow & Abbasian (2024) argue that solo travelers often prioritize the ability to make spontaneous decisions and explore at their own pace. Wachyuni, Wahyuni, & Wiweka (2023) identified Generation Z's primary motivation for solo travel as enjoying tourist attractions, along with factors like value for money, inspiration, local interaction, healing, social media influence, and self-actualization. According to Ejupi & Medarić (2022), solo travelers are often searching for knowledge about other cultures, new ways of life, and new experiences.

Females' Solo Travel Behavior

Travelers such as Marco Polo and Ibn Battuta, known as adventurers and explorers in the earlier period, were generally males (Wilson & Little, 2005), whereas few females had the privilege or social status to travel. The modern interest in solo travel began in the 18th and 19th centuries due to increasing curiosity about the world. During the 19th century, some females did manage to travel alone, especially during the period seen as the golden age of travel (Robinson, 1994, as cited in Seow & Brown, 2018). In the 20th century, tourism marketers failed to recognize females' solo travelling, although it had gained an important place in the travel market (Bartos, 1982 cited in Seow & Brown, 2018). Currently, despite previous difficulties, solo female travelers are now part of the travel market. This has attracted the attention of researchers, leading to various definitions of female travelers. For example, Chai (1996, as cited in McNamara & Prideaux, 2010) defines solo female travelers as females who travel alone to a destination without being part of a package tour or a group.

Figure 1. Antecedents of Solo Female Travel Behavior
Source: Authors' elaboration.

The main antecedents of solo female travel behavior are presented in Figure 1. Females who travel alone may be prone to risk-taking because they are motivated by personal development and increased self-confidence (Pekiner, 2019). In addition, the sense of independence and spontaneity from solo travelling can increase their willingness to take risks (Bianchi, 2016; Hyde & Lawson, 2003). Other factors explaining the increase in females travelling alone include higher education levels (Dereli, 2021), later marriage age, and lower birth rates (Breda, Santos, Klíček, & Dinis, 2020), and greater social acceptance of gender equality (Wilson & Little, 2008).

Ejupi & Medarić (2022) classify females' motivations for solo travel into three categories based on the literature: psychological, cultural, and personal. Psychological motives include a desire for adventure, an escape from routine, a change of environment, and the pursuit of independence and self-confidence. Cultural motives include activities such as sightseeing, attending events, visiting museums and galleries, trying local cuisines, and learning about local cultures. Personal motives involve visiting relatives and friends, meeting new people, acquiring new skills, personal growth, and searching for one's identity. According to Chiang and Jogaratnam (2006), the major motivational factors for females travelling solo are the desire for experiences, relaxation, escape, social interaction, and self-esteem.

However, in contrast to these motivations, females also have fears about travelling alone concerning others' perceptions, vulnerability, a sense of limited access, and feeling conspicuous (Wilson & Little, 2008). Furthermore, females face various risks and constraints (Aslan, 2023; Brugulat & Coromina, 2021; Wantono & McKercher, 2020; Yang, Khoo-Lattimore,

& Arcodia, 2018a; 2018b). Therefore, it is essential to examine more closely the risks and constraints that females face while travelling solo.

Method

This study adopted a literature review based on a thematic perspective. A review was developed to identify risks and constraints for females travelling alone from previous studies. To eliminate these studies, the authors followed a two-phase process. First, they scanned the keywords *solo female trave-lers and *women travelling alone in the title. We defined 100 studies. Second, they scanned them using keywords as *constraint AND *solo female traveler, *risk AND *solo female traveler, *constraint AND *women travelling alone, *risk AND *women travelling alone in their abstracts. As illustrated in Table 1, 43 studies conducted between 2000 and 2024 were identified. In this line, the selection criterion is that they addressed the aforementioned keywords in their titles and abstracts. The studies were selected through the convenience purposive sampling method.

Table 1. Reviewed Studies

Risks (n:25)	1. Bianchi (2016) 2. Breda, Santos, Kliček, & Dinis (2020)* 3. Brown & Osman (2017) 4. Carr (2000) 5. Carvalho, Baptista, & Costa (2015) 6. Jordan &Gibson (2005) * 7. Kaba (2021) 8. Karagöz, Işık, Dogru, & Zhang. (2021) 9. Kour & Gupta (2019) * 10. Maiurro & Brandão (2024) 11. McNamara & Prideaux (2010) * 12. Nguyen & Hsu (2022) 13. O'Neill, Abdul-Razak, Anastasova, & O'Callaghan (2022) 14. Pekiner (2019)	15. Qi, Gibson, & Zhang (2009) 16. Singh & Aier (2024) 17. Shukor & Kattiyapornpong (2024) 18. Sujood, Siddiqui, & Bano (2023) * 19. Valaja (2018) 20. Wantono & McKercher (2020) 21. Wilson & Little (2008) 22. Yang (2016) 23. Yang, Khoo-Lattimore, & Arcodia (2018a) 24. Yang, Khoo-Lattimore, & Arcodia (2018b) 25. Yang, Yang, & Khoo-Lattimore (2019)
Constraints (n:23)	1. Aslan (2023) 2. Bernard, Rahman, & McGehee (2022) 3. Breda, Santos, Kliček, & Dinis (2020) * 4. Brugulat & Coromina (2021) 5. Cesur (2014) 6. Hosseini, Macias, & Garcia (2022) 7. Gao & Kerstetter (2016) 8. Jordan & Gibson (2005)* 9. Kour & Gupta (2019)* 10. Mani & Jose (2020) 11. McNamara & Prideaux (2010)* 12. Nguyen (2018)	13. Ngwira, Tse, & Vongvisitsin (2020) 14. Özgürel (2022) 15. Seow & Brown (2018) 16. Sujood, Siddiqui, & Bano (2023)* 17. Tavakoli & Mura (2021) 18. Tükenmez (2019) 19. Wilson (2004) 20. Wilson & Little (2005) 21. Xie & Ritchie (2019) 22. Yang, Khoo-Lattimore, & Arcodia, (2017) 23. Zahedi (2023)

*Studies consider both risks and constraints (n:5).
Source: Authors' elaboration.

These studies were retrieved in August 2024 from Google Scholar, the Scopus database, and the Web of Science database. To identify the risks and constraints affecting solo female travelers, the review was conducted using a thematic content analysis, focusing on two main themes: risks and constraints faced by solo female travelers. Risks were retrieved from the studies by the authors, but Crawford & Godbey's (1987) classification was used in the identification of constraints.

Qualitative content analysis of 43 studies was conducted to reveal risks and constraints by solo female travelers through the inductive method. To ensure data readiness, the studies were first carefully transcribed and reviewed. The content analysis followed three steps: reduction, display, and conclusion verification (Miles & Huberman, 1994), and the three-phase process (open-coding, axial coding, and selective coding) recommended by Corbin and Strauss (2015). First, open coding was completed by thorough line-by-line coding to describe sentences. Second, axial coding was conducted to identify sub-themes and establish relationships between codes. Finally, selective coding assigned initial codes to the main themes and categories to create a comprehensive codebook. There were two coders to enhance validity. As the intra-coder, the author assigned sub-themes to the corresponding main themes, while an independent coder acted as the inter-coder. The coders then discussed the coding to finalize the two main themes and 10 sub-themes. Cohen's (1960) kappa coefficient (κ) indicated a coder agreement of 0.920.

Findings

The findings were presented under two main themes: risks faced by solo female travelers and constraints faced by solo female travelers. For risks, seven sub-themes were identified; for constraints, three sub-themes were identified.

Risks Faced by Solo Female Travelers

The seven sub-themes identified under the main theme of risks faced by solo female travelers (RQ1) were sexual-related risks, cultural and societal risks, gender-related risks, physical and financial risks, political unrest and terrorism, performance risks, and psychological risks (Figure 2).
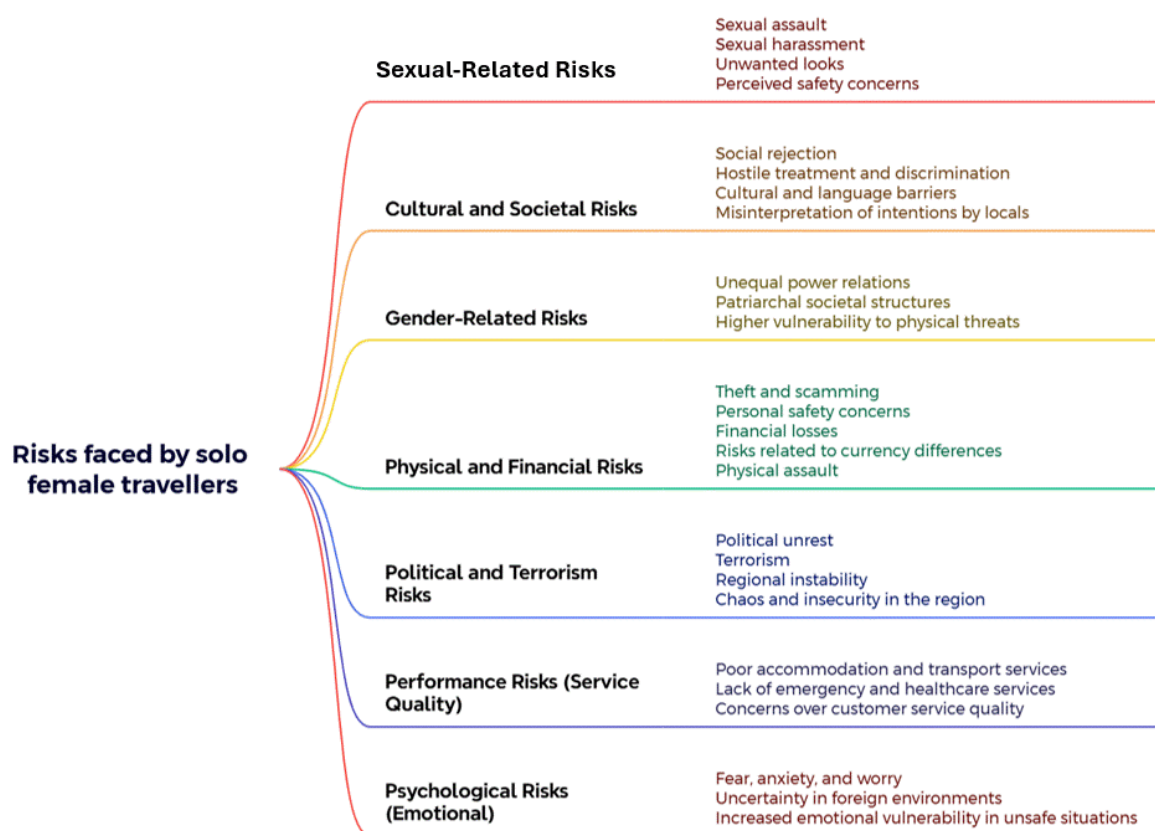

Figure 2. Risks Faced by Solo Female Travelers
Source: Authors' elaboration.

Sexual-Related Risks

Solo female travelers face sex- related risks when traveling alone (Breda, Santos, Kliček, & Dinis, 2020; Karagöz, Işık, Dogru, & Zhang, 2021; Nguyen & Hsu, 2022; Valaja, 2018; Yang, Khoo-Lattimore, & Arcodia, 2018b), including sexual assault, sexual harassment, unwanted looks, and perceived safety concerns (Yang, Khoo-Lattimore, & Arcodia, 2018a). This sense of insecurity stems from some unwanted stares and occasional sexual harassment (Wilson & Little, 2005, 2008). Female solo travelers face a higher risk of sexual violence and harassment, especially in areas perceived as unsafe, such as India (Singh & Aier, 2024). Moreover, unwanted stares can make solo female travelers uncomfortable (Jordan & Gibson, 2005; Shukor & Kattiyapornpong, 2024).

According to Maiurro & Brandão (2024), many women prioritize safety in their travel decisions and often choose destinations that they consider safe in terms of gender-related risks. However, solo female travellers continue to participate in the travel market through self-transformation, empowerment and resisting gendered risks (Wilson & Little, 2005). Accordingly, Yang, Khoo-Lattimore, & Arcodia (2018a) argue that in solo travel, the risk is an essential element of travel and is accepted by solo travellers.

Like Beck's (1992) notion of risk community, risk awareness in contemporary societies entails acknowledging the positive and negative aspects of travel and coping with the uncertainty of not knowing exactly what to expect. At the same time, although sexual-related risks continue to increase, female travellers have developed various risk-reduction strategies (Yang, Khoo-Lattimore, & Arcodia, 2018a; 2018b). These include that female travelers often use strategies to minimize sexual-related risks, such as dressing modestly, avoiding going out late at night, being polite, ignoring unwanted attention from men, avoiding eye contact with men, and wearing fake wedding rings (Kaba, 2021).

Cultural and Social Risks

Another important type of risk is related to the attitudes of local communities towards solo women travelers. These attitudes can increase the risk of social rejection (Karagöz, Işık, Dogru, & Zhang, 2021; Yang, Khoo-Lattimore, & Arcodia, 2018a), hostile treatment and discrimination, as well as cultural and language barriers (Karagöz, Işık, Dogru, & Zhang, 2021; Nguyen, 2018; Nguyen & Hsu, 2022; Sujood, Siddiqui, & Bano, 2023). Yang, Khoo-Lattimore, & Arcodia (2018a), who researched Asian women, found that Asian women are at risk of discrimination and hostile treatment simply because of their appearance and because they are of a different nationality in the West. However, Qi, Gibson, & Zhang (2009), examining travelers' intentions to visit China for the Olympics, found that cultural risk did not have a significant impact on intentions.

Solo female travelers often face social disapproval, especially in conservative societies where traditional gender roles are prevalent. This disapproval can manifest as hostile treatment from residents, which can discourage women from traveling alone or exploring certain regions (Kour, 2020). Furthermore, cultural misunderstandings can lead to discrimination because locals may misinterpret the intentions of solo female travelers, thus further complicating their experience (O'Neill, Abdul-Razak, Anastasova, & O'Callaghan, 2022).

In another example, Tsai, Wu, Wall, & Linliu, (2016) conducted a study on three communities located in Taiwan's national scenic areas and exposed to natural disasters. In the study, both tourism and disaster perceptions of local people exposed to natural disasters were examined. They evaluated the perceived impacts of tourism in three categories: economic, socio-cultural and environmental. The results of the study revealed that most local people were more concerned about socio-cultural impacts, such as conflicts between locals and tourists and damage to cultural assets, than economic impacts. Studies show that women traveling alone often experience more difficulties (Breda, Santos, Kliček, & Dinis, 2020). In addition, when traveling alone, women are socially and culturally defined as an entity in need of constant protection in many cultures. Therefore, this situation can affect women negatively by making them feel powerless. For this reason, the approach of the local people in the traveling community is important and an approach that sees women and men equally should be adopted rather than sexist prejudices.

Gender-Related Risks

A significant gendered risk that can affect females' solo travel experiences is the unequal power dynamics between females and males within a patriarchal structure (Brown & Osman, 2017; Gustafson, 1998; Heimtun & Abelsen, 2013; Qi, Gibson, & Zhang, 2009; Valaja, 2018; Yang, 2016; Yang, Yang, & Khoo-Lattimore, 2019; Wantono & McKercher, 2020). Gender plays a crucial role in shaping females' perceptions of risk (Heimtun & Abelsen, 2013; Karagöz, Işık, Dogru, & Zhang, 2021; Valaja, 2018; Yang, 2016; Wilson & Little, 2008), with females often viewing themselves as more physically vulnerable than males and perceiving males as potential threats (Valaja, 2018; Yang, Yang, & Khoo-Lattimore, 2019).

From their study of the gender-specific aspects of solo travel, Heimtun & Abelsen (2013) found that females tend to find the experience more daunting than their male counterparts. While males can more easily select destinations that cater to their interests, such as sports and entertainment, females are more inclined to seek safer locations (Brown & Osman, 2017; Qi, Gibson, & Zhang, 2009). This underscores how gender-related perceived risks significantly

impact individuals' motivations to travel alone and limit their choices.

In addition, the reasons for gender inequality for female solo travellers include cultural constraints. In this context, some traditional stereotypes lead to gender segregation and inequality for women. Among the studies, when compared to non-Muslim women, Muslim women's leisure participation is limited by their religion (Walseth & Amara, 2017). Similarly, in Indonesia, there are still significant inequalities in gender equality for Muslim women (Nguyen & Hsu, 2024). In related studies, it has been argued that religious values should focus on a specific country and its cultural ideologies to gain insight into the relationship between an individual's behaviour and travel intention.

(Ratthinan & Selamat, 2019). Thus, culture and tradition play decisive roles in shaping women's lives worldwide (Hosseini, Macias, & Garcia, 2022; Popova, Malcheva, & Mari-nov, 2019), influencing women's mobility and subsequent behaviour (Bernard, Rah-man, & McGehee, 2022). In contrast, cultural norms and practices, including traditions, beliefs and social behaviours, nevertheless perpetuate gender inequality, significantly affecting gender equality (Hofste-de, Hofstede, & Minkov, 2005).

Physical and Financial Risks

Females face significant physical and financial risks when traveling alone. These two risks operate both separately and together. These include theft and fraud (Breda, Santos, Kliček, & Dinis, 2020; Kour & Gupta, 2019; Nguyen & Hsu, 2022; Sujood, Siddiqui, & Bano, 2023), personal safety concerns (Karagöz, Işık, Dogru, & Zhang, 2021), and currency differences in the destination country (Breda, Santos, Kliček, & Dinis, 2020). Physical risks such as violence can reduce an individual's intention to revisit a destination after a previous solo travel experience (Chew & Jahari, 2014; Noh & Vogt, 2013; Qi, Gibson, & Zhang, 2009). However, Chew & Jahari (2014) found a negative relationship between perceived physical risk and revisit intention. Similarly, Noh & Vogt (2013) found similar results in the context of traveling to East Asian countries. Kour & Gupta's (2019) analysis on Kashmir revealed that physical risk and financial risk negatively affect travel intentions among solo female travelers. In addition, the study stated that the most common danger for women travelling alone is physical assault (Kour & Gupta, 2019).

Sujood, Siddiqui, & Bano (2023) reported that women who travel alone are at increased risk of violence or crimes such as extortion, especially at night or in isolated areas. Female solo travelers are more susceptible to dangers such as theft and robbery, as well as financial losses and unexpected expenses, especially in crowded or tourist-dense areas (Breda, Santos, Kliček, & Dinis, 2020; Nguyen & Hsu, 2022).

A general conclusion across studies is that women are more concerned about their physical safety and security while traveling than men (Brown & Osman, 2017; Qi, Gibson, & Zhang, 2009). To mitigate these risks, women travelers may incur extra costs for additional safety measures in emergency situations. Such unforeseen financial burdens can strain travel budgets (Sujood, Siddiqui, & Bano, 2023).

Although the negative effects of physical risk for solo female travelers have been reported in many studies, Khan, Chelliah, Khan, & Amin, (2019) found that female university students, young female travelers with high travel motivation had a higher intention to travel to the destination despite having a high perception of physical risk. This may suggest that factors such as age and education level should be compared with risks in studies.

Political Unrest and Terrorism

Political unrest, terrorism and regional instability in destinations can pose significant risks for women solo travelers (Kour & Gupta, 2019; McNamara & Prideaux, 2010; Sujood, Siddiqui, & Bano, 2023). Kour & Gupta (2019) found that political uncertainty negatively affects the travel intentions of female solo travelers and that political unrest in regions where women travel alone significantly affects their perceptions of travel safety. It should also be noted that terrorism is perceived as a significant threat for tourists traveling to various countries. According to McNamara & Prideaux (2010), travelers, especially women traveling alone, perceive the threat of terrorism as a major security concern. Kour & Gupta's (2019) analysis on the destination of Kashmir also revealed that risk perception and travel intentions among solo female travelers declined due to reasons such as political and cultural uncertainty. In another study, Wang & Choi (2024), examined the impact of political crisis events between countries on the number of tourists visiting China and the impact on tourism in the country. Among the results, various types of political events were compared, and it was found that national security-centered disputes had a more pronounced impact than regional disputes.

Conversely, past crises or the image of the destination may lead women to choose different destinations or shorten their length of stay. Moreover, chaotic situations may increase the security concerns of women traveling alone, leading them to take measures to reduce their security concerns while in unstable areas, such as purchasing private travel insurance (Sujood, Siddiqui, & Bano, 2023). However, in the face of all these adversities, Charfeddine & Dawd (2022) examined the resilience of the Turkish tourism sector to exogenous shocks over some time. Among the findings, it was revealed that terrorist attacks did not have any negative impact on tourism revenues and the number of tourist arrivals. This may provide

a sense of confidence to individuals who have traveled or will travel to the country by paying attention to the country's success in foreign policy and showing a successful situation in combating the adversities that arise in the country.

Performance Risk

Women traveling alone face significant risks related to the quality of basic services such as accommodation, transportation, emergency services, and healthcare (Bianchi, 2016; Kour & Gupta, 2019; Nguyen & Hsu, 2022; Sujood, Siddiqui, & Bano, 2023; Wantono & McKercher, 2020). Both Bianchi (2016) and Kour & Gupta (2019) state that women traveling alone have serious concerns about service quality. Inadequate accommodation, unsafe transportation options and poor customer service are perceived as significant risks by women travelers (Kour & Gupta, 2019). According to Nguyen & Hsu (2022), women solo travelers are particularly concerned about the quality of local healthcare services, as some areas may provide inadequate healthcare due to insufficient equipment or specialists. Consequently, women travelers may not receive the necessary support in case of emergencies or illness. At the same time, factors such as concerns about unsafe or unknown areas, worries about accessing health services in a foreign country, and stress about planning will reduce individuals' motivation to travel alone. However, Qi, Gibson, & Zhang (2009), reported that health risk did not have a significant effect on travelers' intentions to visit China for the Olympics. This may be confusing as health risk often has a negative impact on the destination to which one is or will be traveling.

Psychological (Emotional) Risk

Emotional risks such as fear, worry, and anxiety are common among female solo travelers (Breda, Santos, Kliček, & Dinis, 2020; Karagöz, Işık, Dogru, & Zhang, 2021; Sujood, Siddiqui, & Bano, 2023; Wantono & McKercher, 2020). These emotions often arise in response to other risks and can be triggered by safety concerns, uncertainty of navigating unfamiliar environments, cultural differences, and po-

tential dangers encountered during travel. Fear is the most mentioned concept in studies. It is often felt by individuals when traveling alone, but women feel it to a higher degree. There are reasons for this; Valentine's (1989: 385) concept of "the geography of women's fear" suggests that violent behavior by men has an impact on women's public spaces and that frightening incidents that occur in these spaces, experienced by others, are detailed in the media, either visually or in writing, creating fear and negativity for women (Valentine, 1989). Such tragicization of ongoing events in society and the infliction of psychological violence on women for the sake of greater impact may only generate a few more views or ratings for the media (Kour & Gupta, 2019; Yang, Khoo-Lattimore, & Arcodia, 2018a), but it can have a profound impact on women, causing damage that can last for years.

The resulting fear scenarios will create a need to keep women under control and thus to inform women about their plans, activities, where to go, when to arrive, etc. (Wilson & Little, 2008). The information published by official Portuguese organizations also confirms that there is information that discourages women from traveling to the destinations of their choice, creating fear in general, but not at the destination (Breda, Santos, Kliček, & Dinis, 2020). Because of this phenomenon, it is a situation of restriction through intimidation, which seems to be beneficial for women, but in fact, does nothing but instill fear in women in society. In this case, women travelers are advised to conduct research through reliable sources of information before their travels. In addition, Sujood, Siddiqui, & Bano (2023) explain that such emotional reactions, which are common among women solo travelers, stem from a lack of social and environmental security. Despite all the fears and anxieties felt by solo female travelers, women travelers regularly experience these emotional risks and see them as a normal part of the travel experience (Carr, 2000; Carvalho, Baptista, & Costa, 2015; Wilson & Little, 2008; Yang, Khoo-Lattimore, & Arcodia, 2018a).

Table 2. Some Studies on the Risks Faced by Solo Female Travelers

Source	Research Subject	Methodology	Identified Risks
Breda, Santos, Kliček, & Dinis (2020)	Motivations of females travelling alone and challenges encountered during the journey	Qualitative, Interview	Loneliness, sexual harassment, fear of walking alone at night, theft
Karagöz, Işık, Dogru, & Zhang (2021)	Risks, anxiety, travel intentions, and the role of online psychosocial support in females' solo travel	Quantitative, Survey	Food safety, hygiene, natural disasters, disease, culture, language barriers, gender-based risk and social-psychological risks

Mc Namara & Prideaux (2010)	Profiles of solo female travelers in tropical North Queensland and key motivations influencing their travel and behavior	Quantitative, Survey	High crime rate, poor water quality, poor transport, unreliable public health system, risk of disease, unreliable police force, inefficient emergency services, reputation for corruption
Nguyen & Hsu (2022)	Relationship between electronic word-of-mouth communication (eWOM), destination image, and visit intention of solo female travelers from Southeast Asia to India	Quantitative, Survey	Local health services, food safety, language barrier, epidemics, unwanted looks, violence, sexual harassment, theft, socio-cultural risks
Sujood, Siddiqui, & Bano (2023)	Factors affecting Indian Muslim females' intention to travel alone	Quantitative, Survey	Functional, financial, health, physical, political, psychological, satisfaction, social, time
Valaja (2018)	Risk perceptions and risk reduction strategies of females travelling alone	Qualitative, Travel blogs	Gender-based risks, health risks, financial risks, psychological risks, and satisfaction risks
Wantono & McKercher (2020)	Perceptions of risk faced by Asian solo female backpackers	Qualitative, Interview	Physical risks, social and psychological risks, satisfaction risk
Yang, Khoo-Lattimore, & Arcodia (2018a)	Asian females' perceived risks, negotiation strategies and sense of empowerment when travelling alone	Qualitative, Interview	Sexual assault, street harassment, discrimination and social disapproval

Source: Authors' elaboration.

Constraints Faced by Solo Female Travelers

Three sub-themes were identified regarding the constraints faced by solo female travelers, based on Crawford & Godbey's (1987) leisure constraints (RQ2): personal constraints, interpersonal constraints, and structural constraints (Figure 3).
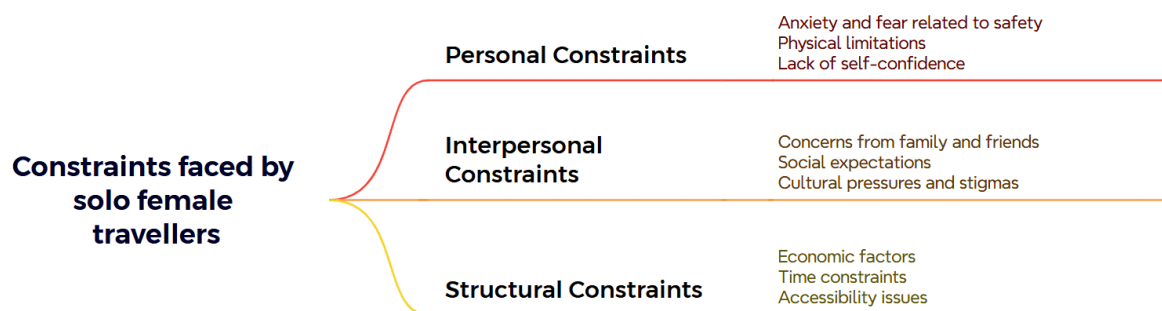
Figure 3. Constraints Faced By Solo Female Travelers
Source: Authors' elaboration.

Personal Constraints

Psychological states, such as stress, fear, anxiety, religiosity, and perceived self-sufficiency, contribute to the constraints faced by solo female travelers. Of these, fear and anxiety are the most prominent (Aslan, 2023; Hosseini, Macias, & Garcia, 2022; Mani & Jose, 2020; Ngwira, Tse, & Vongvisitsin, 2020; Tükenmez, 2019). Other states are self-doubt, vulnerability and loneliness (Brugulat & Coromina, 2021; Wilson & Little, 2005). These personal constraints significantly impact the intention to travel (Xie & Ritchie, 2019). For example, Bernard, Rahman, & McGehee (2022) found that Bangladeshi Muslim solo female travelers were restricted by personal barriers like communication difficulties in foreign environments. Similarly, studies on Turkish females travelling alone

revealed that personal constraints influence solo travel intentions (Aslan, 2023; Tükenmez, 2019). These constraints are further intensified by patriarchal structures (Tükenmez, 2019). Because personal constraints are rooted in intrinsic factors, they are seen as the most influential barriers for solo female travelers (Nguyen, 2018).

Interpersonal Constraints

Interpersonal constraints on solo female travelers arise from social factors, including family, reference groups like friends and colleagues, and societal norms. Family members' protective and sometimes restrictive attitudes toward females travelling alone can influence their travel decisions. Yang, Khoo-Lattimore, & Arcodia (2018b) reported that solo female travelers may limit their travels due to their families' concerns about travel safety. Similarly, Ngwira, Tse, & Vongvisitsin (2020) found that females bloggers travelling alone to Africa were often constrained by the influence of spouses, relatives, and close friends. Within certain cultural contexts, families tend to be more protective, which reduces the likelihood of females travelling alone (Aslan, 2023; Hosseini, Macias, & Garcia, 2022; Jordan & Gibson, 2005; Wilson & Little, 2008).

Seow & Brown (2018) find that the opinions and suggestions of friends can either strengthen or weaken a female's courage to travel solo. The most prominent of these constraints stems from social norms and expectations, especially those rooted in cultural and patriarchal values. General societal perceptions and gender norms often label solo travel for females as "dangerous" or "inappropriate," which can affect their travel decisions (Yang, Khoo-Lattimore, & Arcodia, 2017). Similarly, Wilson & Little (2008) argued that these social norms can limit female travel.

From their study of Asian Muslim female travelers, Tavakoli & Mura (2021) revealed that social barriers, such as the expectation for females to remain at home and care for the family, reduce their willingness to travel solo. Similarly, Wilson (2004) reported that Australian solo female travelers are subjected to role expectations and pressure from their social environments. In Iran, Zahedi (2023) found that socio-cultural norms significantly affect Muslim females' intentions to travel alone. Likewise, Indian females face various restrictions on solo travel due to the social roles imposed on them by society (Mâni & Jose, 2020). Overall, social norms, concerns, and pressures from friends, family, and work environments greatly influence the decision-making of solo female travelers when considering independent travel (Cesur, 2014; Jordan & Gibson, 2005; Wilson & Little, 2008).

Structural Constraints

The limited number of studies investigating external constraints indicate that solo female travelers are significantly affected by factors like poor transportation, limited financial resources, unsuitable climate, and safety issues. Inadequate, low-quality, or unsafe transportation infrastructure or limited transport options can restrict the mobility of solo female travelers (McNamara & Prideaux, 2010).

Financial resources are also a key factor in implementing travel plans. Kour & Gupta (2019) explain that financial constraints, including limited economic means, significantly limit females' travel preferences and routes. Similarly, both Özgürel (2022) and Wilson (2004) report that financial limitations are crucial factors restricting solo female travel. Travel costs, accommodation, and other expenses can limit travel decisions and the duration of trips.

Climatic conditions and environmental factors also shape travel experiences for solo female travelers. These factors can be perceived as structured constraints because they affect both the safety and comfort of travel (Breda, Santos, Kliček, & Dinis, 2020). Another structural constraint is health conditions. Inadequate local healthcare services can pose significant challenges for female travelers (Sujood, Siddiqui, & Bano, 2023). Similarly, Ngwira, Tse, & Vongvisitsin (2020) and Gao & Kerstetter (2016) also categorize health-related problems as external constraints, while security (Gao & Kerstetter, 2016) and gender-related constraints (Ngwira, Tse, & Vongvisitsin, 2020) can also be defined as structural.

Table 3. Some Studies on the Constraints Faced by Solo Female Travelers

Source	Research Subject	Methodology	Identified Constraints
Aslan (2023)	Effect of constraints experienced by Generation X, Y, and Z females living in Turkey on their travel intentions when travelling alone	Quantitative, Survey	Personal, interpersonal, and structural constraints
Brugulat & Coromina (2021)	Constraints of solo female backpackers in Southeast Asia	Qualitative, Interview	Precedent and in situ constraints: Socio-cultural, practical, personal and spatial constraints

Cesur (2014)	Travel constraints of female tourists travelling alone	Qualitative, Interview	Individual level, community level, social level
Hosseini, Macias, & Garcia (2022)	Experiences of Iranian solo female travelers	Qualitative, Interview	Cultural barriers, personal constraints, and interpersonal constraints
Mâni & Jose (2020)	Reasons why females choose to travel alone; push and pull factors affecting solo travel; constraints and transformations females face when travelling alone	Qualitative, Interview	Gender-related and safety risk, family resistance, need for financial support, work permit status
Ngwira, Tse, & Vongvisitsin (2020)	Pre- and intra-travel constraints and negotiation strategies of females travelling alone to Africa	Qualitative, ethnographic	Internal/personal, interpersonal, and external constraints
Tükenmez (2019)	Motivations of females travelling alone and challenges encountered during the journey	Qualitative, Interview	Personal, interpersonal, and structural constraints
Wilson & Little (2005)	How constraints affect females' experiences when travelling alone	Qualitative, Interview	Sociocultural, personal, practical, and spatial

Source: Authors' elaboration.

Discussion

Research on female solo travel has revealed that gender and risk perception significantly influence women's travel behaviour (Heimtun & Abelsen, 2014; Karagöz, Işık, Doğru, & Zhang, 2021; Valaja, 2018; Yang, 2016; Wilson & Little, 2008). These studies suggest that females' physical vulnerability compared to males increases their gender-based risk percep-tions, leading them to perceive males as potential threats (Valaja, 2018; Yang, Yang, & Khoo-Lattimore, 2019).

A study by Heimtun and Abelsen (2014) on students found that females perceive solo travel as more intimidating than males. The research also concluded that males are more willing to participate alone in sports and entertainment-based vacations, whereas females express greater concerns about physical safety and security during travel (Brown & Osman, 2017; Qi, Gibson, & Zhang, 2009). These findings indicate that perceived risks related to solo travel may influence individuals' motivations, especially when demographic factors are considered.

Additionally, the differences in how males and females perceive risks can be explained by their varying perspectives. Studies have highlighted that experiencing fear during solo travel is a normal phenomenon (Carr, 2000; Carvalho, Baptista, & Costa, 2015; Wilson & Little, 2008). However, this fear is cul-turally and socially acquired rather than stemming from past experiences (Wilson & Little, 2008). Fear is often conveyed through different channels be-fore travel, creating a perception that females should feel afraid. Females are also informed that they are taking risks and are unsafe in unfamiliar countries (Breda, Santos, Kliček, & Dinis, 2020; Carr, 2000).

It is noteworthy that females often experience fear and anxiety about harassment (Breda, Santos, Kliček, & Dinis, 2020). Moreover, another study on female solo travellers indicated an increase in gender-based risks, such as assault and harassment, prompting females to de-velop risk mitigation strategies (Yang, Khoo-Lattimore, & Arcodia, 2018a; Yang, Khoo-Lattimore, & Arcodia, 2018b).

Some studies reveal that despite the risks they face, females remain motivated to travel solo. Pekiner (2019) explained that females possess high motivation to continue traveling alone despite negative experiences, such as harassment, which can be dist-ressing. Similarly, Ngu-yen & Hsu (2022) suggested that perceived risks might serve as a motivation for females traveling solo in Southeast Asia.

Constraints imposed on females are also a significant focus in research (Hosseini, Macias, & Garcia, 2022; Jordan & Gibson, 2005; Mani & Jose, 2020; Wilson & Little, 2008). These restrictions include unwanted male attention (Brown & Osman, 2017),

sexual limitations (Ngwira, Tse, & Vongvisitsin, 2020), negative behaviours from locals (Aslantürk & Unur, 2019), spatial restrictions (Wilson, 2004), prevention of travel by family, relatives, or friends (Aslan, 2023), safety concerns (Aslantürk & Unur, 2019), fear of judgment (Shah-vali, Shahvali, & Kerstetter, 2016), financial constraints, or lack of time (Özgürel, 2022; Wilson, 2004).

Studies conducted in patriarchal societies indicate that females experience more personal and interpersonal restrictions (Aslan, 2023; Zahedi, 2023; Tükenmez, 2019; Tükenmez, 2022). This is often seen because of patriarchal social structures. For instance, it is common for families or societies to disallow females from traveling alone (Zahedi, 2023; Mani & Jose, 2020; Tavakoli & Mura, 2021).

Özgürel (2022) notes that Turkish females traveling alone often face structural constraints such as time limitations and economic conditions. Additionally, perceived types of con-straints vary depending on factors like education, age, gender, culture, physical disabilities, and economic status (Gao & Kerstetter, 2016; Hosseini, Macias, & Garcia, 2022; Nguyen & Hsu, 2022; Özgürel, 2022). These factors influence individuals' travel decisions, leading them to either participate or refrain from traveling (Zahedi, 2023), and can diminish enjoy-ment and satisfaction during travel or activities (Bianchi, 2016; Yang, 2021).

Conclusion

This study presented a conceptual framework for understanding the risks and constraints encountered by females in solo travel, emphasizing their importance as key determinants of travel decisions. While the diverse social, cultural, and economic backgrounds of females participating in solo travel contribute to various constraints and risks, this study focused on a specific set of risks and constraints. Risks were classified into seven types: physical and financial risks, performance risks, psychological risks, political unrest, terrorism, sexual-related risks, and cultural and social risks. Constraints were categorized into three main types: personal, interpersonal, and structural. These findings make a valuable contribution to the existing literature on risks and constraints, paving the way for future research in the field of solo travel.

Theoretical Contributions

This study contributes to the existing literature on solo female travelers by providing a nuanced understanding of the risks and constraints they face. It also demonstrates that females' solo travel behavior can be examined from two primary perspectives.

The first emphasizes the significant role of risks as determinants of solo travel, indicating that factors such as demographics, cultural background, and social structure differentiate the restrictions experien-

ced by solo female travelers. Many scholars advocate for exploring these risks and constraints within a cultural framework, recognizing that the behaviors of solo female travelers vary according to their demographic characteristics (Gao & Kerstetter, 2016; Hosseini, Macias, & Garcia, 2022; Nguyen & Hsu, 2022; Özgürel, 2022). For instance, Özgürel (2022) finds that Turkish solo female travelers often face structural constraints related to time and economic factors, which may deter them from pursuing their travel intentions. Moreover, solo female travelers may encounter risks and constraints such as physical vulnerability, cultural pressures, the social and individual implications of religious values, safety concerns in destinations, and difficulties in managing unexpected situations (Breda, Santos, Kliček, & Dinis, 2020; Karagöz, Işık, Dogru, & Zhang, 2021; Mâni & Jose, 2020; Tavakoli & Mura, 2021; Zahedi, 2023). Similarly, cultural factors emerged in the present study as particularly decisive in shaping the experiences of solo female travelers. This is often explained by the patriarchal social structures prevalent in many societies, which impose greater personal and interpersonal constraints on females (Aslan, 2023; Bernard, Rahman, & McGehee, 2022; Mâni & Jose, 2020; Tavakoli & Mura, 2021; Tükenmez, 2019; Zahedi, 2023). Such constraints may manifest as personal challenges, including anxiety and fear (Tükenmez, 2019), and interpersonal challenges, such as disapproval from family or society regarding solo travel (Mâni & Jose, 2020; Tavakoli & Mura, 2021; Zahedi, 2023).

The second perspective emphasizes solo female travelers' resilience in the face of risks and constraints. Jordan & Gibson (2005), for example, find that female travelers are not deterred by negative experiences during solo travel but continue their journeys with determination. Similarly, Pekiner (2019) notes that many females remain highly motivated to pursue solo travel even after unpleasant experiences. This suggests that while risks and constraints may influence the travel decisions of solo female travelers, they do not diminish their overall motivation to explore (Carvalho, Baptista, & Costa, 2015; Nguyen & Hsu, 2022; Pekiner, 2019; Yang, Khoo-Lattimore, & Arcodia, 2018a; Zahedi, 2023). Although the impact of negative situations encountered during solo travels is often associated with feelings of fear, some studies argue that experiencing fear is a normal aspect of the solo travel experience (Carr, 2000; Carvalho, Baptista, & Costa, 2015; Wilson & Little, 2008). Focusing on those females who actively resist risks and constraints, Yang, Khoo-Lattimore, & Arcodia (2018a) report that Asian solo female travelers challenge traditional gender norms by embarking on solo journeys, a process that ultimately empowers them. They characterize this phenomenon as a form of voluntary risk-taking behavior. Our findings also emphasize the complex dynamics of motivation and risk perception among solo female travelers, which

suggests that future research should delve deeper into the motivations that drive solo female travelers to confront risks and constraints, further exploring how cultural, social, and individual factors influence their travel behaviors. Understanding this resilience can provide valuable insights into empowering solo female travelers and promoting safe travel practices that acknowledge their unique experiences.

Practical Implications

This study presents six practical implications. First, tourism stakeholders, including destination managers and policymakers, should tailor their offerings to address the specific needs and concerns of solo female travellers. This includes developing safety protocols, providing clear and accessible information about safety concerns, and ensuring that destinations are welcoming and supportive of female travellers. Additionally, promoting inclusive and safe travel experiences through targeted marketing campaigns and community engagement will attract more solo female travellers. Second, since cultural norms and societal attitudes towards solo female travel vary significantly across regions, there is a need for awareness programs that educate both local communities and travellers. These programs can aim to break down stereotypes and challenge societal biases, fostering environments where female travellers can feel secure and empowered. Furthermore, encouraging a more gender-sensitive approach in travel guides, marketing materials, and online platforms will help to normalize solo female travel. Third, travel agencies should provide more customized services for solo female travellers, such as offering female-only tours or creating resources to help women prepare for safe travel experiences. These agencies can also collaborate with local partners to create safe spaces for women and provide emergency contact information to ensure a sense of security throughout their travels.

Fourth, establishing online and offline communities for solo female travellers can serve as a source of support and inspiration. These communities can offer practical tips, shared experiences, and emotional reassurance, helping to mitigate feelings of isolation or fear. Peer networks could also facilitate the exchange of safety strategies and advice on navigating travel challenges. Fifth, as suggested in the study, providing educational training that focuses on self-protection and awareness is crucial. These programs can teach women how to recognize and respond to potential risks, use technology for safety, and make informed decisions about their travel destinations. Workshops and seminars focused on empowering women with practical safety skills would go a long way in reducing perceived risks and encouraging more women to pursue solo travel. Last-

ly, showcasing inspiring stories of female travellers who have successfully navigated solo journeys can help to shift societal perceptions and inspire other women to travel alone. Exhibiting statues, stories, or exhibitions of prominent female travellers in museums or at key cultural sites would also contribute to this process, promoting women's agency in tourism and travel. By focusing on these practical implications, the tourism industry can support solo female travellers in overcoming the risks and constraints they face while also helping to cultivate a more inclusive and empowering travel environment for women worldwide.

Limitations and Suggestions for Future Research

This study has three limitations. First, while addressing the constraints and risks of solo female travel, it excluded their motivations, negotiations, and re-travel intentions. Second, the study was limited to considering constraints and risks for solo female travelers only. Finally, the study adopted a conceptual approach to provide a comprehensive framework based on the existing literature concerning the risks and constraints encountered by solo female travelers; however, it did not assess the relative significance of these identified risks and constraints. Furthermore, because the study primarily draws on literature for its findings, it may have failed to adequately address recent developments in the field. Therefore, the impact of the risks and constraints faced by solo female travelers—highlighted in this study—on variables such as travel motivation and travel intention should be supported by empirical research.

To address these limitations, three suggestions are offered for future research. First, future studies should employ both qualitative and quantitative methodologies to evaluate the significance of the identified risks and constraints. Second, research could facilitate a comparative analysis of the importance of these risks and constraints within specific cultural and social contexts related to solo travel. Finally, research is needed to remedy the notable lack of studies examining the constraints and risks perceived by male solo travelers (Aziz & Long, 2022; Bianchi, 2016; Chung, Baik, & Lee, 2017; Lepp & Gibson, 2003; Yang & Tung, 2018; Yang, 2021; Yang, Nimri, & Lai, 2022). Consequently, conducting similar studies on male solo travelers would provide valuable insights and a gender-focused comparative perspective.

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Bibliometric Analysis of Perception Management and Future Trends

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Abstract

Today, with the impact of globalization and digitalization, perception management has become a strategic tool that shapes the thoughts and behaviors of institutions and societies. Perception management aims to influence the opinions, feelings, and behaviors of the target audience by using conscious communication strategies, while manipulation and propaganda involve more deceptive and misleading tactics. This study uses the bibliometric analysis method to understand the relationship between these three concepts and the status of academic studies on these topics. The study aims to analyze perception management between 2000 and 2023 and discuss future research trends. Within the scope of the study, the data collected in the Scopus database were analyzed with the "bibliometrix" module in the R program. In this context, bibliometric indicators such as annual publications and citations, top authors, institutions, countries, most cited publications, network analysis, clustering, and trending topics are presented. Findings from this research reveal that perception management has garnered significant and rapidly increasing academic attention in recent years. It finds the USA, the UK, and Germany leading scientific contributions, with perception management increasingly tied to digital tools and artificial intelligence. It reveals that perception management has shifted to social media and machine learning applications and has gained increasing importance in digitalized societies. Future research could explore the interplay of technology, ethics, and communication strategies. This bibliometric study fills a critical gap in understanding the intellectual landscape of perception management, offering insights into its ethical applications and highlighting areas for future exploration.

Keywords: Bibliometric Analysis, Database, Literature, Perception Management, Research Status And Trend.

JEL Codes: C00, D83, M39, Y1, Y8

Introduction

Today, advances in technology have become one of the most significant factors influencing communication. As a result of these advancements, the options for people to access and acquire information have also expanded. Communication is a complex process that is at the center of human interaction and helps us understand the functioning and cultural dynamics of societies. The power of communication rests on the potential that lies in the dissemination of thoughts and ideas, the transmission of information, and the intellectual orientation of society. However, communication does not only include information sharing. It also has the ability to shape information, create perceptions, and influence social behavior.

This power of communication has been among the main purposes for managing people's perceptions. In this context, those who manage perceptions are aware that they will manage other people more easily and effortlessly in line with their goals. Perception management, which aims to persuade or change the perception of an individual either compulsorily or voluntarily, has existed in every period of human history.

Based on the concept of the reality of perception, it can be stated that there are conscious experiences occurring between objects (Coren et al., 2004). Perception refers to the organization, identification, and interpretation of sensory input to comprehend the presented information or the surrounding environment (Schacter, 2011). The term "perception management" was introduced to the literature by the United States Department of Defense. According to the Department of Defense, it is defined as "actions taken to communicate and/or deny selected information and indicators to intelligence systems and leaders at all levels in order to influence the emotions, motives, and objective reasoning of foreign audiences, as well as to influence official estimates" (Dictionary of Military and Associated Terms, 2023). In this context, this concept is defined as the ability to shape perceptions in one's favor in order to generate consent and facilitate task accomplishment (Siegel, 2005). It also requires asking questions and getting feedback from others (Russell, 2001).

Perception management, perhaps due to its popularity as a concept, makes it possible to discuss it in a broader context. Today, perception management is seen very clearly that it has penetrated almost every corner of the world. In the information society where communication and message exchange habits change and transform with these diffusion effects, perception management no longer has the tactical effects used in military actions.

Şengöz (2024) examines the role of artificial intelligence-supported algorithms in the formation and management of public perception and discusses critical issues regarding the practical use of these algorithms and suggestions for future research. In particular, this study provides a conceptual framework for how machine learning and deep learning techniques can be used to understand and guide public perception. Wolfberg (2022) extends the applications of data science and artificial intelligence techniques in social sciences, emphasizing the need to consider more parameters and variables and discussing the potential of algorithms to increase the predictive power of algorithms in this context. Efe (2023) examines how perception engineering in the age of cyber capitalism distorts rational economic expectations through social media and artificial intelligence and its effects on market efficiency. Studies such as Neudert et al. (2020) and Zhang and Dafoe (2019) have explored how perceptions of AI differ across demographic and cultural contexts and examined the impact of these perceptions on public policies and strategies. These studies provide important contributions to the literature on the social impacts and ethical dimensions of artificial intelligence (Gerlich, 2023).

Erbay and Aslan (2019) investigated the relationship between the perception management process and social values and emphasized the role of social values in the adoption of social goals. In this context, the effects and strategic importance of perception management at the social level are explained. Bayrakcı (2021), while discussing the role of perception management in power and hegemony relations, detailed the historical development and social effects of perception management. Derman (2021) discusses how perception management and disinformation direct society through the media, while Siegel (2005) explains how perception management is used as a critical tool in US military strategies. These studies comprehensively examine the role of perception management in different fields such as communication, media, politics, and war strategies.

Perception management generally consists of four stages: (1) Attracting the attention of the target audience (2) presenting and sharing similar information to control the attention of the target audience (3) making the information presented consistent with the perceptions of the target audience (4) is the repetition of information in communication sources in order to keep it in the same position (Callamari and Reveron, 2003). Perception management can be seen as a kind of propaganda in terms of its aim to influence the target audience. However, although perception management has similarities with propaganda in terms of goals and results, it has differences in terms of tools and methods.

Propaganda was first used in 1622 Used by Pope XV. Gregory. XV. Gregory established the "Sacra Congregatio de Propaganda Fide" organization, affiliated with the Roman Catholic Church, in order to spread the teachings of the Catholic Church and to ensure

unity in religion. This organization, which was established for missionary purposes, was the first formation in history to use the word propaganda and was established specifically for propaganda activities (Qualter, 1980). Propaganda can be described as the manipulation of the emotions, attitudes, and behaviors of the masses on a specific subject. The term generally carries a negative connotation. It refers to deliberate and systematic communication efforts aimed at promoting or reinforcing a particular view, ideology, or belief (Brown and Yazar, 1992).

Propaganda can work in a manipulative way by distorting or exaggerating factual information, fueling emotional reactions, or simply presenting a certain point of view. Manipulation, a concept that should be considered together with the concept of propaganda, means changing information through selection, addition, and subtraction. The concept has different interpretations in economic, psychological, etc., areas. Manipulation is the art of making others accept your wishes and desires even if they do not need them, even by harming them when necessary (Pratt, 2017). When we look at the first examples of manipulation in history, the campaign implemented by Edward Bernays, one of the pioneers of public relations and marketing, for the Lucky Strike cigarette brand in 1929 comes to mind. Bernays has skillfully used manipulation techniques to increase demand for this brand of cigarettes.

Perception management, manipulation, and propaganda are concepts that reflect the power and complexity of communication. At this point, ethical values and transparency gain importance. Understanding the differences between perception management, manipulation, and propaganda and using the power of communication correctly and ethically is a requirement of social labeling and responsibility. By distinguishing these fine lines in communication, it can develop effective communication strategies and contribute to the meeting of society in a healthier and more conscious communication environment. This study focuses on the following questions in order to understand the place of perception management in academic literature and to analyze the trends in this field with a bibliometric approach:

How is perception management addressed in academic literature, and how are perception management strategies transforming with digitalization and artificial intelligence technologies?

What are the publication and citation trends of studies on perception management between 2000 and 2023?

What are the most important themes and disciplines that perception management research should focus on in the future?

This study provides an in-depth bibliometric analysis of the existing literature on perception management. In this regard, it emphasizes the importance of academics periodically reviewing previous scholarly works to develop a comprehensive understanding of the intellectual foundations and underlying structures within this field. Such an approach not only aids in grasping the current state of research but also contributes to making informed predictions about potential future directions and advancements. Despite the extensive body of literature available on perception management, manipulation, and propaganda, there appears to be a significant gap: no comprehensive bibliometric analysis has been undertaken to systematically map and elucidate the intellectual structure of these areas by considering the entirety of the available scientific data. This research aims to fill this critical void in the academic literature by examining perception management from the perspective of communication power, thereby providing a more holistic understanding of how this concept is framed and utilized within scholarly discourse. In addition, it will provide an important step in identifying research gaps in this field and predicting which areas future studies may focus on.

Bibliometric Analysis

The origins of bibliometric discussions trace back to the 1950s, marking the beginning of scholarly interest in the systematic analysis of publication patterns and research output (Wallin, 2005; Donthu et al., 2021a). While this indicates that the bibliometric methodology itself is not a recent development, its widespread adoption and use are relatively new (Donthu et al., 2021a). Bibliometrics, as defined by Pritchard (1969), refers to the employment of mathematical and statistical techniques to analyze books and various communication media. It encompasses a range of quantitative approaches aimed at systematically examining publications to extract meaningful insights regarding research trends and productivity (Leung et al., 2017). The scope of bibliometric analysis includes the quantitative assessment of diverse characteristics of scholarly documents or publications, such as author contributions, the journals in which they are published, thematic classifications, and detailed bibliographic information (Al and Tonta, 2004). By leveraging these methods, researchers can gain a deeper understanding of the structure and dynamics of academic literature, facilitating a more comprehensive analysis of knowledge dissemination and scholarly impact.

Bibliometric analysis is an essential method for mapping the literature in a specific research domain, and it is widely recognized as a robust and effective approach for investigating and analyzing large datasets of scientific publications. Researchers employ bibliometric techniques for various purposes, such as identifying emerging trends in the performance of articles and journals, examining patterns of academic collaboration and research components, and

gaining insights into the intellectual structure of a particular field within the existing body of literature (Verma and Gustafsson, 2020; Donthu et al., 2021b).

In contrast to the methods commonly used for literature reviews, bibliometric analysis is highly organized and sequential. The most frequently used techniques in bibliometric analysis include citation-based analysis, common word or keyword co-occurrence analysis, and co-authorship analysis. Within citation-based analysis, additional classifications are made, including citation analysis, co-citation analysis, and bibliographic matching (Van, 2005; Van & Waltman, 2014).

Bibliometrics not only aid in conducting retrospectives of research but also enable both quantitative and objective exploration of emerging research topics and development trends across various fields. The outcomes of bibliometric analysis significantly contribute to the progression of a specific research area in several ways. More specifically, bibliometrics offers the ability to (1) evaluate the progress made within a given field by tracking the frequency and citation patterns of key publications, (2) identify the most reliable, influential, and widely recognized sources of scientific publications, including journals, conferences, and repositories, (3) recognize and assess the contributions of critical scientific actors, including authors, institutions, and research groups, (4) provide an evidence-based academic foundation for evaluating new scientific developments and emerging innovations, (5) highlight the growing research interests and unexplored areas that are attracting increasing scholarly attention, and (6) predict potential future directions and success rates of research trajectories based on historical trends and citation patterns (Mazloumian, 2012; Jeong et al., 2014;

Martínez et al., 2015; Kulaklı et al., 2024).

This research aims to analyze two content types to determine the bibliometric characteristics of perception management, manipulation and propaganda publications.

Data Collection and Preliminary Statistics

The aim of a literature review is to gather, comprehend, and analyze existing knowledge, as well as to take the essential steps required to establish a foundation for future research. Typically, the literature review process involves a systematic approach, following specific search criteria and keywords. This study selected the Scopus database and used publicly available secondary data. This choice was made because Scopus is an extensive database that spans numerous disciplines. Furthermore, Scopus indexes more journals than other databases, offering a broader scope of coverage. Therefore, examining the research topic within the Scopus database is particularly significant in this context. Perception management was determined as the study theme, and perception management, manipulation, and propaganda were selected as keywords and search criteria. Document type, date range and publication language were used as criteria in the database. Figure 1 shows the schematic and process of the study. After searching 3 keywords in the Scopus database on December 3, 2023, 427 publications were found. Then, the language selection was English, the publication type was chosen as article, book, book chapter, conference papers, review, and the publication year was determined as 2000–June 2023.
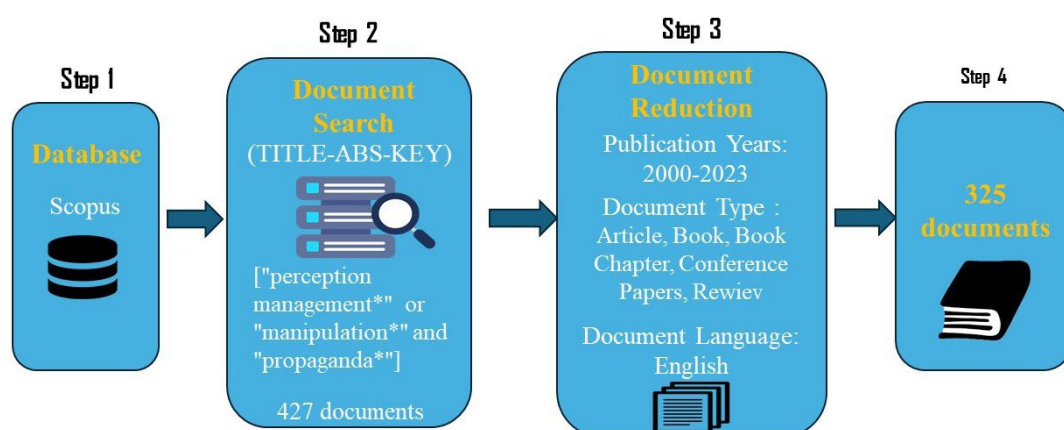
Figure 1. Working Chart

For a detailed bibliometric analysis, it is as important to use the right statistical software as the right database. It is concluded that the "bibliometrix" module in the R program is more comprehensive than the "BIBExcel" package (Persson et al., 2009).

The VOSviewer package program is software designed for visual network analysis and includes visual elements such as word clouds, clustering analyses, and network maps. Due to its capacity to perform network analysis (Aria and Cuccurullo, 2017) and to

perform analyses such as citation analysis, author analysis, journal analysis, and institution analysis, the "bibilometrix" module in the R package was determined and selected as the most appropriate statistical package (Ulu and Türkan, 2024).

Figure 2 presents the key statistics and summary details of the research. The investigation conducted within the Scopus database reveals that the first study related to our theme was published in 1937. However, there were no studies during certain years between 1937 and 2000, and the number of studies remained relatively low during this period. As a result, the focus was placed on the years between 2000 and 2023. Over the 23-year span, 295 sources and 325 documents (publications) were analyzed. Notably, after 2011, there was a significant increase in the number of publications, with 2020 marking the year with the highest output, totaling 47 studies. Within this period, the annual growth rate of the research was 4.89%, and the average age of the studies was 6.43 years. The 325 papers were authored by 546 researchers, with 186 of these papers being single-authored, while the remainder were co-authored. On average, each publication had 1.81 co-authors, and 11.08% of the publications were collaborative efforts involving multiple countries. A total of 913 distinct keywords were used across the publications, which cited 19,391 references, resulting in an average of 14.74 citations per publication.

Figure 2. Preliminary Statistics

Influential Authors

Figure 3 shows the top 10 most relevant authors. The 10 most interested authors carried out 9% of the studies carried out in the selected 23-year period. It has been seen that Ferrara is the first in the authors' local impact, and it can be said that Ferrara and Wang dominate this research area. Figure 4 shows the periods when the most relevant authors were productive. It has been observed that the most influential authors have made studies on the subject, especially after 2016.

Figure 4. Authors' Production Over Time

Influential Countries

Figure 5 illustrates the map depicting the countries with the greatest influence in scientific production. Research on the topic has been carried out in 52 countries, with 21 countries having conducted five or more studies. The USA ranked first in scientific productivity with 128 studies, while the UK was second with 45 studies, Germany was third with 24 studies, and China and Ukraine were fourth with 18 studies. Singapore, USA, UK, and Germany are ranked as the most cited countries, respectively. The countries with the best scientific productivity were the USA, UK, Germany, China, Ukraine, Spain, Italy,

Figure 3. Most Relevant Authors

France, Australia, Canada, the Netherlands, Poland, and Portugal, respectively. Countries with political and ideological views and economically developed countries are countries that contribute to this field scientifically and academically. Especially during the Cold War period, the US government used perception management strategies with anti-communist propaganda and media campaigns. If we look at the political field, the Nazis in Germany created a perception that glorified their own ideology and leaders by using propaganda effectively. China, on the other hand, is known as a country that holds tight political control and uses perception management to maintain this control. Russia and North Korea, which are not on the list, were found to be weak in this area in terms of scientific productivity. In addition, most of the studies are single-country publications, and it has been determined that the number of multi-country publications is quite low.

Figure 5. Countries' Scientific Production

Influential Institutions

Figure 6 shows the most influential institutions. The University of Oxford has been ranked at the top for intellectual contribution in this field. While Oxford University started its studies in 2003 and California University in 2005, other universities increased their studies as of 2015.
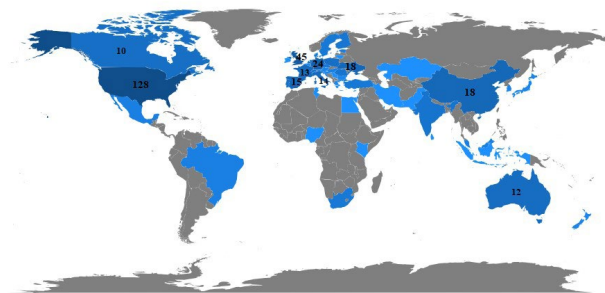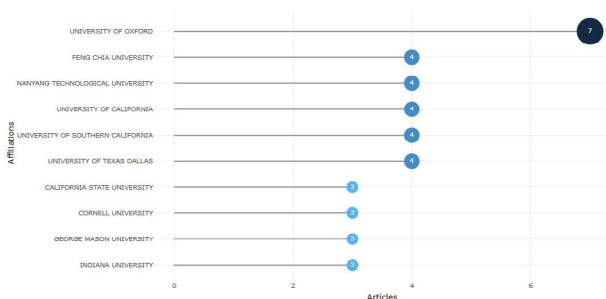

Figure 6. Most Relevant Affiliations

Influential Publications

Figure 7 shows the most globally cited studies. Tandoc et al. (2018) topped the list with 943 citations. Tandoc et al. studied the definition of fake news. Starbird (2019) studied disinformation as a collaborative study. Howard et al. (2016) have studied the difficulty of automated political communication for

election law and administration in the United States. Edmond (2013) presented a model of information manipulation and political regime change. Oberschall (2010) studied ethnic manipulation. Mehta and Nejdl (2008) used collaborative filtering, and Mehta et al. (2007) tried to detect spam users in collaborative filtering for lies and propaganda. Other studies have been seen to explore the forms of political theater, perception, manipulation, propaganda, lies, media, communication, political regime, algorithm, filtering, spam and artificial intelligence.

Figure 7. Most Cited Documents Worldwide

Keywords

The word analysis provided information about the relationship between the keywords of perception management, which is a tool for strategic management, and the keywords of manipulation and propaganda. Researchers add a large number of keywords to publication studies, and word analysis examines the use of these keywords. The word cloud is given in Figure 8, and the most frequently used words are shown. Keyword networks aim to explore the relationships and links between concepts. Keyword analysis aims to reveal the conceptual frameworks of publications and refers to these general concepts or ideologies.

Figure 8. Keyword Cloud

The most frequently used words were social networking (online), social media, propaganda, social aspects, human, manipulation, mass media, semantics, classification (of information), fake news, politics, perception management, deep learning and public relations.

Figure 9 presents a thematic map for the studies analyzed. Thematic maps are designed to assess

concepts in a specific sequence, providing a clear visual representation. These maps are primarily constructed based on centrality (x-axis) and density (y-axis) factors. Centrality indicates the importance of a concept within a central theme, while intensity measures the development of the chosen theme. Thematic maps are typically divided into four key sections, each offering a simplified visual representation that organizes the themes into four distinct quadrants. Themes located in the lower-left section

of the map represent topics with either increasing or decreasing trends. These themes are typically derived from existing research or developed by researchers themselves. The lower-right section of the thematic map reflects core subject areas that are supported by a significant body of research. The upper-left quadrant highlights specialized but isolated niche topics, while the upper-right section focuses on well-established and more specific areas of study.
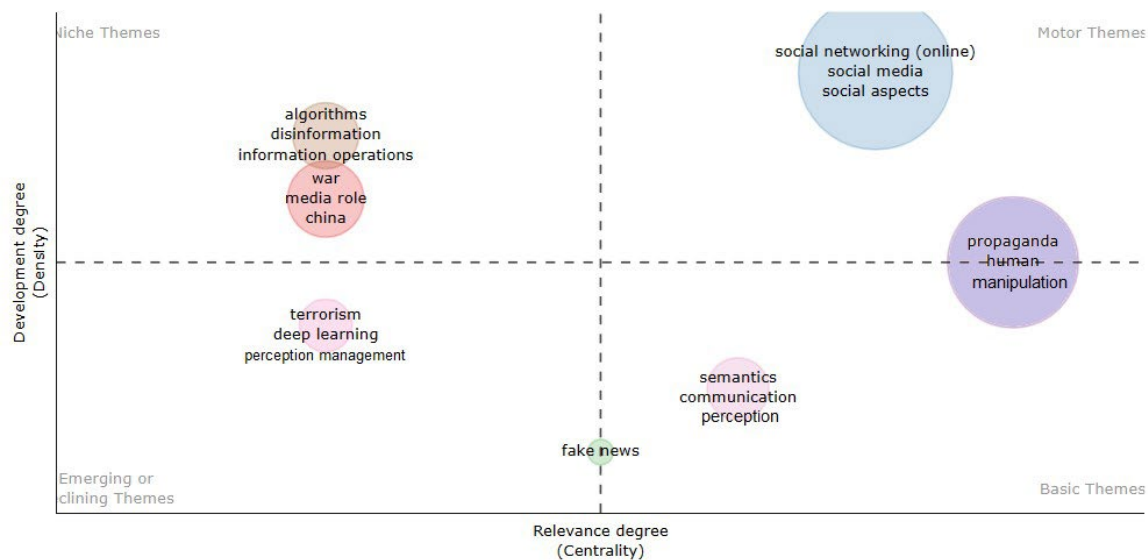

Figure 9. Keyword Thematic Map

Key words such as perception, semantics and communication in the basic theme part showed the main emphasis of the study in the literature. At the same time, manipulation, propaganda, human and the transition from the motor theme to the basic are seen in perception management tools. In the motor theme part, it was seen that the environments where keywords such as social network, social media, social aspects were dominant and perception directions were made. In the Niches theme section, it is shown that the necessary work is done to spam content with algorithms and information operations. At the same time, the war, the role of the media, and the situations in China show that this area will be studied. Emerging or clinic themes show that a new trend will be born or will end. In this context, perception management is poised to become a central focus in research, particularly as it relates to communication power. As technology and artificial intelligence continue to evolve, the application of sophisticated algorithms such as deep learning and machine learning will significantly enhance the capabilities of perception management. These technologies will play a pivotal role in shaping public perception, especially by filtering out negative or undesirable perceptions, and will be instrumental in crafting and controlling the narratives that influence societal attitudes and behaviors. The increasing complexity and

reach of these algorithms will provide a more refined and targeted approach to managing perceptions across various domains.

Furthermore, the occurrence of political crises, conflicts, and terrorist incidents will only heighten the relevance and necessity of perception management. In such volatile environments, controlling how information is perceived and disseminated becomes crucial. The ability to influence public opinion and control the narrative during such times can have profound implications for national security, political stability, and even international relations. As such, the intersection of communication power, technological advancements, and global events will likely shape the future of perception management, making it an essential area of study for researchers aiming to understand the dynamics of public opinion, media influence, and societal control.

Multiple Correspondence Analysis

Multiple correspondence analysis (MCA) is widely regarded as a standard technique for reducing the dimensionality of multivariate data sets. In this research, the keywords searched from the Scopus database were subjected to a visual configuration and divided into two different clusters from the total of 913 keywords. Figure 10 shows the conceptual

structure map for MCA. Cluster 1 is the red-colored keywords, Cluster 2 is the blue-colored keywords, and the black dots represent the individual factors related to the clusters.
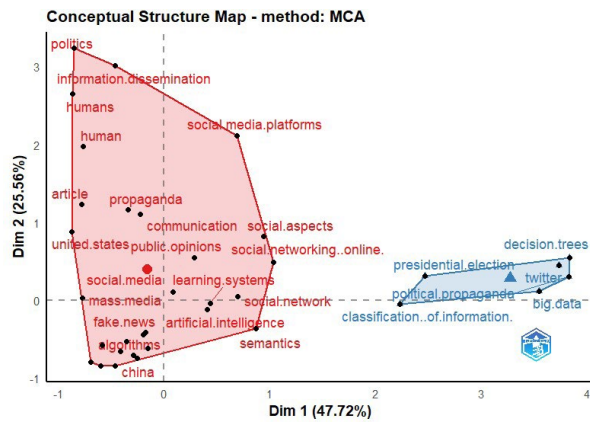

Figure 10. Cluster Map

Topic Dendrogram

The subject dendrogram visualizes the hierarchical order and relationships that are created by the hierarchical clustering method of keywords. Dashed lines and vertical lines in the form of subject dendrograms guide readers by facilitating the analysis and interpretation of different clusters. The aim here is not to determine the exact levels of association between clusters but rather to estimate the approximate number of clusters suitable for further analysis and discussion. Figure 11 shows the topic dendrogram.
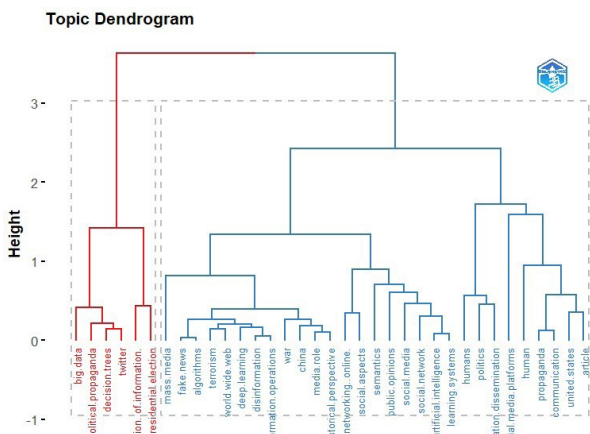
Figure 11. Topic Dendrogram

Trend Topics

The term "trending topics" refers to topics that have gained popularity over a certain period of time or are of interest to a wide audience. Trending topics can often change quickly and have different priorities over time. Trend topics are given in Figure 12. Although the role of the media and rights relations have been studied in the past, issues such as war,

politics, terrorism, and people will continue to be studied today. Current topics in perception management are social media, social aspects and social networking (online). Apart from this, with the development of technology, the artificial intelligence factor came into play. Topics such as deep learning, machine learning, decision support systems have become important topics for the classification and validation of information. With the importance of data science, perception management will be carried out on big data and algorithms or fitting and verification processes will be among the future issues.
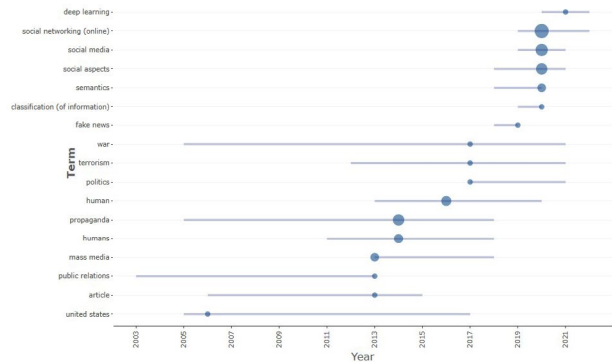
Figure 12. Trend Topics

Limitarions

This research has several limitations that should be acknowledged. First, the study relies exclusively on the Scopus database, which could result in missing data, as it does not incorporate other sources such as Web of Science, Google Scholar, or Microsoft Academic. Future studies could address this gap by including data from multiple sources to provide a more comprehensive analysis. Second, the study is limited to the period from 2000 to 2023, meaning that earlier relevant studies may have been excluded from the analysis. Future research could expand the time frame to include earlier studies and assess their impact on current trends. Third, the research focuses only on scientific keywords, which may overlook other important aspects, such as policy implications or broader societal trends. Future studies could consider a broader set of keywords or explore other dimensions of the subject for a more holistic view. Finally, conducting quantitative analysis requires researchers to have a deep understanding of the subject, as interpreting complex data necessitates specialized knowledge. Future research could enhance its robustness by involving interdisciplinary teams with expertise in both the subject matter and advanced data analysis techniques to ensure more accurate interpretations and conclusions.

Conclusion

In the technological era, the influence of mass media is undeniably recognized. With rapid technological advancements, individuals are bombarded by a

constant flow of information, much of which is difficult to verify, making it challenging to distinguish between fact and fiction. The speed at which information is disseminated facilitates the spread of vast amounts of unverified data, contributing to what is often referred to as information pollution. This situation is further exacerbated by the fact that the media content we consume—whether through television, social media platforms, or digital news outlets—is largely influenced by the underlying dynamics of capitalism. In contemporary capitalist systems, the selection of content we engage with is not driven by the public's informational needs but by market forces and corporate interests, often curated through algorithms designed to maximize engagement and profit.

In this context, communication strategies and techniques are important. Perception management, manipulation, and propaganda are concepts that reflect the power and complexity of communication. Although there are fine lines between these three concepts, perception management is generally accepted as a more transparent, ethical, and purposeful type of communication, while manipulation and propaganda can have a negative meaning. In this context, more studies and practices are required in this area. The importance of the relationship between politics, war, and perception management, which has continued from the past to the present, is quite wide in social, political, and ethical aspects. The interaction of these issues can profoundly influence societies' decision-making processes, international relations, and understanding of history.

Perception management and the use of artificial intelligence play an important role in today's increasingly digitalized communication and information flow. Artificial intelligence can help manage perception management strategies in a more effective and customized way. Perception management can be shaped by making personalized communication, rapid response and analysis, trend forecasts, sentiment analysis, and crisis, risk, and opportunity forecasts with artificial intelligence.

Social media platforms are areas where individuals and institutions reach large masses, and at the same time, perception management strategies are effectively implemented. With social media platforms, large audience access, fast and instant interaction, content dissemination and management, targeted communication, and participation in social discussions can be achieved. As a result, social media is an important tool for the effective implementation of perception management. However, improper or unethical use of social media platforms can also lead to negative consequences.

Future research will allow for a more detailed exploration of the structure of digital perception management. In particular, the integration of artificial intelligence and deep learning applications into perception management represents an important research area, and the effects of these technologies on social media platforms should be further investigated (Mehta et al., 2007; Mehta and Nejdl, 2009; Şengöz, 2024). Additionally, studies on the societal and cultural impacts of digital perception management should increase. The long-term effects of social media interactions and algorithms on societal perceptions are of critical importance for future research (Tandoc et al., 2018; Neudert et al., 2020; Derman, 2021).

The ethical dimensions of perception management need to be addressed in more detail. With digitalization, perception management has often become intertwined with manipulation and propaganda; therefore, it is necessary to draw ethical boundaries and develop new strategies in this field (Brown & Yazar, 1992; Siegel, 2005). Furthermore, studies on how digital tools and social media platforms can be used more ethically will help shape societal perceptions in a healthier way. These studies will provide a more solid foundation for the future applications of digital perception management and contribute to creating a more ethical communication environment.

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Netnography of Sustainable Tourism in the Triangle of Skills, Values and Outcomes

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Abstract

The Social Studies Curriculum (SSC) aims to equip individuals with certain attitudes, values, and skills to address the environmental, economic, and social issues, which are the core elements of sustainability. In this regard, the purpose of this study is to reveal the extent to which the intended outcomes have been achieved in society through social studies education, which aims to develop the skills and values necessary to understand sustainability in tourism. This research was conducted using a qualitative research method and designed as a case study. The BlaBla-Car application was selected as the case study of the research. The data obtained from SSC and Sikayet-var.com through document review and netnography methods were analyzed using document analysis, content analysis, and descriptive analysis. The findings indicate that all the values and skills included in the SSC contribute to the understanding of sustainability in tourism. Similarly, it was found that nearly one-third of the learning outcomes in the program aim to contribute to the development of tourism and the understanding of sustainability in tourism. However, the findings derived from the case study demonstrate that individuals hinder economic sustainability in tourism by exploiting legal loopholes and engaging in illicit activities. Furthermore, individuals are driving society toward a socio-culturally unsustainable state by engaging in actions such as harassment, deceit, and distrust. In this context, it can be argued that the values, skills, and outcomes theoretically conveyed through SSC are not sufficiently reflected in practice, rendering the program ineffective.

Keywords: Tourism Education, Sustainable Tourism, Social Studies, Social Studies Curriculum, Sharing Economy.

JEL Codes: L83, Q01, Q56, I25, Z32

Introduction

Since the Industrial Revolution, humanity has been engaged in a struggle with nature over the use of limited resources (Malik et al., 2024). When this struggle began to threaten the future, education emerged as a widely recognized solution (Pinto & Nakatani, 2022) as the ability of individuals to live without causing harm to each other or the environment can only be gained through education (Turan, 2019). In this regard, societies guide individuals toward the ideal order through various subjects taught in schools. Among the subjects that play a key role in shaping society is Social Studies. Social Studies first emerged in the United States (Sevigen, 2021) and aims to raise individuals as active and responsible citizens (Sevigen, Acun, & Üztemur, 2022). In Türkiye, this subject first appeared in the 1962 primary school curriculum under the title "Society and Country Studies" and was renamed "Social Studies" in 1968 (Öztürk, 2006).

Social studies focus on the ever-changing needs and dynamics of society, which leads to the inclusion of new areas, topics, and concepts in the scope of this course (İlhan, Şeker, & Kapıcı, 2015). One of the concepts emphasized in the SSC is tourism, which holds significant economic and cultural importance. The program implemented in 1968 adopted goals such as introducing tourism to students, explaining its importance, fostering tourism awareness, and raising awareness about tourism elements. In contrast, the 2018 curriculum placed greater emphasis on the importance of tourism in international relations (Yıldırım & Çetin, 2022). The "Global Connections" learning area in this program focuses mainly on tourism topics. This area is designed to equip students with knowledge and skills regarding economic interactions between regions, the role of technology and transportation in international economic relations, tourism, and international cooperation (Turan, 2019).

SSC plays an active role in instilling tourism awareness. İlhan et al. (2015) revealed that fifth-grade social studies textbooks introduce tourist destinations both visually and textually and provide information about attractions on the UNESCO World Heritage list. Kaya (2019) conducted a similar study and found that information and visuals related to tourism were sufficiently included in all levels of both the social studies program and social studies textbooks. Stating that the social studies course plays an important role in teaching cultural heritage subjects, Yalçın (2024) examined the materials of the Ministry of Culture and Tourism used in teaching them. Accordingly, it was found that the social studies course offers a wide range of materials for teaching cultural heritage topics, and that the use of these materials in classroom activities can produce effective results. Yıldırım and Çetin (2022) state that the curriculum that places the most emphasis on tourism

is the 1968 SSC, while the curriculum that gives it the least attention is the 2018 SSC. In their research, they concluded that, despite the increasing importance of tourism for countries, it is not adequately reflected in the curriculum. In terms of sustainable tourism, the conservation of environmental, social and cultural values also plays an important role in education (Yayla, 2020). In this context, Kaya and Tomal (2011) stated that since 2005, the SSC has aimed to equip individuals with the attitudes, values and skills necessary to tackle environmental, economic and social issues, which are essential for sustainable tourism.

Previous studies indicate that SSC aims to raise tourism awareness among individuals within the scope of cultural heritage, tourism, and the social, environmental, and economic impacts of tourism. However, a review of the literature revealed no research examining whether the values, skills, and outcomes theoretically conveyed in the social studies curriculum regarding tourism have been effectively implemented in practice. This indicates a significant gap in literature. In this context, the purpose of this study is to determine the extent to which the desired outcomes have been achieved through social studies education, which aims to impart the skills and values necessary for sustainable tourism. Accordingly, this research aims to answer the following questions:

1. Which learning outcomes in the SSC are related to tourism?

2. Which learning outcomes in the SSC are related to sustainable tourism?

3. To what extent do individuals possess the skills, values, and outcomes necessary for sustainable tourism?

A qualitative research approach was adopted to address the research questions. For the case study, the BlaBlaCar application was selected as the sample case. Founded in 2006 with the aim of bringing drivers and passengers together, BlaBlaCar (Talandier et al., 2024) is a sharing economy platform that has emerged in the tourism market in recent years (Skalska, 2017). The application, which offers affordable and flexible travel options, brings together more than 100 million drivers and passengers today. BlaBlaCar, a leading company in its field, is not only an online travel platform but also a cloud-based data storage service (Hanchuk et al. 2023). Given these effective functions as a travel application, BlaBlaCar offers a remarkable case study opportunity for tourism activities.

The study is significant not only for providing valuable insights into whether the social studies course is effective in shaping tourism behavior, but also for revealing the extent to which individuals possess the attitudes, values, and skills required for the environmental, social, and economic aspects of sustainability. Therefore, while contributing to filling the gap

in the literature on this topic, the study also offers suggestions for improving practical teaching methods in the social studies course to make students' attitudes, values, and skills more effective, beyond the theoretical aspects.

In line with the general framework presented above, a conceptual framework is first provided, explaining the relationship between the learning outcomes of the social studies curriculum and sustainable tourism. Subsequently, details regarding the research methodology are outlined, followed by a presentation of the findings obtained through this method. Finally, the research findings are discussed, leading to significant conclusions and the corresponding recommendations for the field are proposed.

Literature Review

The Role of Tourism in the Social Studies Curriculum

The social studies course, which covers many subjects concerning society, has two primary objectives in countries like the United States, Australia, and Canada: to develop the ability to understand global events and to foster citizenship awareness, thereby promoting active participation in societal life (Öztürk & Kafadar, 2020). Due to its multidisciplinary structure, the social studies course is capable of conducting studies across various fields (Üztemur, Sevigen & İnel, 2021). One of the disciplines included in the social studies course is tourism. While there is no course at the primary education level in Türkiye that directly teaches tourism, the only course that indirectly covers tourism topics is social studies. Although the SSC does not have a specific learning area dedicated to tourism, the subject is addressed across a broad spectrum of social sciences, including history, geography, economics, sociology, and culture. Among these learning areas, tourism is most prominently emphasized in the "Global Connections" section. According to Turan (2019), this learning area is designed to equip students with knowledge and skills in topics such as economic interactions between regions, the role of technology and transportation in international economic relations, tourism, and international cooperation.

Today, as states strive to develop their tourism industries in order to capture a larger share of the global tourism market, the importance of tourism education has become more apparent (Kaya, 2021). An examination of the curricula of the social studies course over time reveals that the relationship between the course and tourism fluctuates periodically. For example, in the 1968 curriculum, objectives such as introducing tourism to students, explaining its importance, fostering tourism awareness, and raising awareness about tourism elements were adopted. However, in the 1998 curriculum, due to the increased emphasis on development through national

resources and values, concepts related to tourism were given less prominence compared to the previous programs (Yıldırım & Çetin, 2022). The SSC currently in use in Türkiye was issued in 2018 (Turkish Ministry of National Education, 2018). In this curriculum, the concept of tourism is explicitly mentioned, and there is an important learning outcome that focuses on the significance of tourism in international relations (Yıldırım & Çetin, 2022).

Social studies education is also important at the global level, and many countries (such as the USA, England, Finland, Germany, Ireland, Sweden, Japan, Canada, Norway, Jamaica, Singapore, New Zealand, the Czech Republic, South Africa, and Egypt) have their own SSC. While each country tailors its curriculum based on its unique historical, geographical, and socio-cultural features, these programs aim to instill common behaviors in students. Numerous studies have been conducted in the literature on social studies curricula in different countries regarding this topic (Giroux & Penna, 1979; Arthur & Davison, 2000; Ross, 2006; Kuş, 2014; Jakubowski, 2023; Jamil, Aslam & Ali, 2024). There are also studies comparing the social studies curriculum of countries (Schwartz et al., 2012), focusing on values education (Schwartz, 1992; Schwartz et al., 2001; Thornberg & Oğuz, 2013), and examining these programs in terms of sustainability (Alelaimat & Taha, 2013).

The SSC in Turkey possesses an interdisciplinary framework designed to impart knowledge about social structure, cultural heritage, and economic activities. To demonstrate that social studies encompass more than just history, geography, and citizenship classes, it is essential to understand the foundational principles and the several disciplines that constitute this field (Keçe & Merey, 2011). The SSC encompasses each learning area that addresses fundamental issues of a particular scientific domain, supplemented by insights from other disciplines. Upon examining the relationship between many scientific disciplines and tourism within the SSC, it becomes evident that history and tourism are two interrelated fields that enhance one another. Individuals are provided the chance to engage with history through cultural tourism. This enables individuals to establish an emotional connection with the historical sites they explore (Metin, 2006). Similarly, the notion of heritage holds significant relevance in the realm of tourism geography within social studies curricula. The initial destinations accessible to tourists are often sites of natural and cultural heritage. Pamukkale-Hierapolis is referred to as "geographical heritage" because of its integration of tourism and geography (Doğaner, 2019). In the realm of citizenship education, tourism fosters environmental awareness by promoting individuals to become conscientious and responsible tourists. Consequently, in the context of the social studies curriculum, tourism is regarded not merely as an industry but also as an interdisciplinary field

that enhances individuals' awareness of the globe.

The Understanding of Sustainability in Social Studies Curriculum

Research on the inclusion of tourism in social studies education has identified several deficiencies arising from the curriculum, textbooks, or teachers. For example, İlhan, Şeker, and Kapıcı (2015) emphasized that the concept of tourism in social studies textbooks in Türkiye is often focused primarily on summer tourism. Keçe (2015), in a study conducted on prospective social studies teachers, found that while these groups had a positive attitude toward historical and cultural tourism values, they lacked sufficient knowledge on the subject. A review of the literature on the inclusion of tourism topics in social studies courses shows that cultural heritage and museology are commonly explored areas. (Danacı Polat, 2019; Aydoğan, 2020; Sevigen et al., 2022; Hündür, 2022; İnanlı, 2023). However, in the literature, no studies linking social studies curriculum to tourism areas focused on sustainable tourism or sustainability have been found. Yet, it is evident that increasing environmental awareness is one of the fundamental goals of the social studies course. In this context, one of the specific objectives of the course includes the statement: "Item 6: To recognize the limitations of natural resources and the environment, to strive to protect natural resources with environmental awareness, and to develop an understanding of a sustainable environment" (Turkish Ministry of National Education, 2018). In this regard, it was found that the social studies course aims to impart understanding and skills related to all dimensions of sustainable tourism—economic, socio-cultural, and environmental.

While the concept of sustainability, as taught in the social studies course, is crucial for all sectors of the tourism industry, it can be argued that it holds particular significance for the transportation sector. According to the World Tourism Organization's data for 2024, an estimated 1.4 billion tourists participated in international travel. In this respect, tourism contributes to over 5 percent of global greenhouse gas emissions (UNWTO, 2025), 90 percent of which comes from transportation (Kelly et al., 2007). Tourists can harm the environment by generating carbon emissions from the very beginning of their journey while traveling to their destination. As a result, going on vacation is not always an environmentally friendly activity (Dolnicar, 2020). Although the transportation sector is often associated with negative environmental impacts, it can also play a crucial role in economic sustainability. While economically sustainable transportation aims for a cost-effective transportation structure, it also takes into account factors such as economic activities, productivity, tax burden and employment (Nalçakan, Tutar, & Tutar, 2012). In this respect, the transportation sector can create direct or indirect impacts in various economic areas such as reducing transportation costs, fostering integration in international trade, promoting economic growth, enhancing employment, improving productivity, and developing a competitive structure (Kara & Ciğerlioğlu, 2018). The transportation sector can affect not only environmental and economic areas but also social sustainability. In this regard, social sustainability in transportation refers to meeting societal needs in an equitable manner. This includes justice, suitability for human health, and historical, cultural, and social relationships (Nalçakan, Tutar & Tutar, 2012). An effective transportation system brings regions closer together, fostering the blending of customs and traditions that reflect the identity of societies. As a result, structurally isolated communities can, through the transportation sector, shift away from traditional attitudes and behaviors, and evolve into more open and interactive societies (Ayaz & Bakan, 2022).

Another model that promotes sustainable development of tourism while enhancing social welfare and economic progress is the sharing economy. This model mitigates adverse effects on the environment and society while simultaneously lowering expenses (Perkumienė et al., 2021). This business model provided the foundation for the development of the BlaBlaCar application, which was designed to facilitate travel-related activities. BlaBlaCar is a ride-sharing network that connects drivers with available seats in their cars to passengers traveling in the same direction. This application helps address traffic problems both environmentally and economically without the need to introduce new vehicles to the transportation system (Cohen & Kietzmann, 2014). Additionally, the application offers social benefits for both drivers and passengers, such as getting to know each other and forming new friendships (Fitzmaurice et al., 2020). BlaBlaCar, which was established in 2006 with the aim of transforming idle vehicle capacity into a community-based travel network, has since grown into a $2 billion platform operating in 22 countries (Yurdakul, Kiracı & Çetin, 2023). Moreover, BlaBlaCar, a prominent application in the tourism sector in recent years (Skalska, 2017), brings together over 100 million users worldwide (Hanchuk et al. 2023). Investigating the attitudes and behaviors of the user base of this platform which is claimed to have many social, environmental, and economic benefits, and its contribution to the understanding of sustainability can reveal the extent to which social studies education succeeds in shaping society. Thus, the BlaBlaCar application was chosen as the case study for this research.

Methodology

In this study, document analysis and netnography methods were utilized. Netnography is a modern qualitative research method that adapts ethnograp-

hic research techniques to study cultures and communities that emerge through computer-mediated communication (Kozinets, 2002). While the netnography method has garnered increasing attention in interdisciplinary research in recent years (Tiryaki, 2023) and its use in the field of tourism is expanding (Tavakoli & Wijesinghe, 2019), its application in the field of education remains quite limited (Yavuz & Toprakçı, 2021). This method was chosen for its emphasis on online data and its effectiveness as a key tool for analyzing large datasets. This method was chosen for its focus on online data and its recognition as an effective tool for analyzing large datasets.

Research Design

This research adopts a qualitative research approach and is designed as a case study. A case study involves the detailed examination of a single case to explain broader phenomena (Davey, 2009). Case studies are a research design in which a current situation within defined boundaries in a certain period of time is described through in-depth data collection (Creswell 2013). The distinct feature of case studies, compared to other research methods, is their ability to explore, describe, and explain events believed to have causal relationships (Yin, 2009).

Population and Sample

The study population consists of complaints and reviews related to BlaBlaCar on the official sikayetvar.com website. BlaBlaCar, one of the world's largest online platforms (OECD, 2019), is a ride-sharing travel network founded in France in 2006, with over 90 million members across 22 countries (BlaBlaCar, 2024). The platform's goal is to reduce travel costs by connecting drivers and passengers traveling in the same direction, foster socialization and enjoyable journeys through mutual trust, and contribute to a sustainable environment by reducing CO_2 emissions (BlaBlaCar, 2024). Sikayetvar.com is an online complaint platform established in 2001 to serve as a bridge between consumers and brands, facilitating the resolution of consumer complaints. The platform, which influences consumers' purchasing decisions and brand preferences, receives approximately 14,000 real consumer complaints daily. These complaints are easily and freely communicated to brands through the platform, allowing brands to provide solutions to the issues raised (Sikayetvar.com, 2024). The reason for selecting the sikayetvar.com platform within the scope of this study is that it provides access to all complaints and reviews related to BlaBlaCar from a single online source. However, this also represents a limitation of the study. Although the platform offers comprehensive access to comments about BlaBlaCar, it is primarily used by individuals to submit complaints, as indicated by its name. As a result, the platform predominantly features negative comments rather than positive ones. The sample for this study consists of all complaints and reviews submitted by BlaBlaCar users on this online platform.

Data Collection Process

In the first phase of the study, corresponding to the first two research questions, the SSC, most recently published by the Turkish Ministry of National Education in 2018, was used to determine which learning outcomes are related to tourism and sustainable tourism. Accordingly, a total of 131 learning outcomes were listed: 33 in 4th grade, 33 in 5th grade, 34 in 6th grade, and 31 in 7th grade. In the second phase of the study, a search using the keyword "BlaBlaCar" on the sikayetvar.com website yielded a total of 217 complaints and reviews (the total number available on the website). It was found that all complaints and reviews related to BlaBlaCar were submitted between June 9, 2021, and July 23, 2024.

Data Analysis

In the study, document analysis was conducted to identify the learning outcomes in the social studies curriculum related to tourism and sustainable tourism. The process followed the stages recommended by Altheide and Schneider (2013) for document analysis, which include data collection, coding, analysis, and reporting. In this type of analysis, reliability is established if the same dataset, analyzed under similar conditions, leads other researchers to the same conclusions (Altheide, 1996). To ensure reliability in this study, researcher triangulation was employed, and Miles and Huberman's (1994) reliability formula [Percent of Agreement = (Consensus / (Agreement + Disagreement)) x 100] was used. In this context, to determine which learning outcomes in the social studies curriculum are related to tourism and sustainable tourism, all outcomes were individually reviewed by three researchers specializing in social studies, tourism, and qualitative research. Since full consensus was reached on the outcomes deemed unrelated to tourism and sustainable tourism, the reliability for these outcomes was calculated to be 100%. For the outcomes considered related to tourism and sustainable tourism, the reliability calculations were 95% and 100%, respectively. According to Miles and Huberman (1994), for a study to be considered reliable, all reliability results must exceed 70%. In this study, the fact that all results are above 70% indicates the reliability of the research.

In the second part of the study, which focuses on complaints and reviews related to BlaBlaCar, the netnography method was employed. Since data in netnography typically consist of notes and records from digital environments, content analysis is used in the data analysis phase (Zerenler, 2020). Additionally, descriptive analysis was also utilized in analyzing the data in this study. Content analysis, which is useful

for examining people's thoughts, beliefs, attitudes, and values (Stemler, 2000), is a process aimed at reducing and interpreting large amounts of qualitative data to identify their meanings and consistencies (Patton, 2014). With this method, the content of the data is examined to identify which thoughts, beliefs, attitudes, and values are emphasized the most and the least. Descriptive analysis, another data analysis technique used in the study, involves presenting the data directly as quotes, without any alterations (Yıldırım & Şimşek 2013). The purpose of this technique is to present different perspectives on the same topic in a clear and systematic manner (Demir, 2009). In this study, both content analysis and descriptive analysis were conducted using the MAXQDA 20 software package. To ensure the reliability of these analyses, the same steps used in evaluating the learning outcomes were followed. Reliability calculations for the two themes identified through content analysis were 97% for the first theme and 100% for the second theme.

Findings

Findings on the Relationship between SSC Outcomes and Tourism and Sustainable Tourism

The SSC includes 27 skills and 18 values (Table 1), along with 131 learning outcomes. It is possible to relate all these skills and values directly or indirectly to tourism. Therefore, while no specific analysis was conducted on these skills and values, they are presented in this section to provide a clear understanding of their scope.

Table 1. Skills and Values in SSC

Skills			Values	
1. Research	12. Communication	22. Problem solving	1. Justice	10. Aesthetics
2. Environmental literacy	13. Cooperation	23. Social engagement	2. Giving importance to family unity	11. Equality
3. Perception of change and continuity	14. Recognizing stereotypes and prejudices	24. Drawing and interpreting tables, graphs and diagrams	3. Independence	12. Freedom
4. Digital literacy	15. Using evidence		4. Peace	13. Respect
5. Critical thinking	16. Decision-making	25. Using Turkish language correctly, properly and effectively	5. Scientificity	14. Love
6. Empathy	17. Location analysis		6. Hard work	15. Responsibility
7. Financial literacy	18. Media literacy	26. Innovative thinking	7. Solidarity	16. Saving
8. Entrepreneurship	19. Perception of space	27. Perception of time and chronology	8. Sensitivity	17. Patriotism
9. Observation	20. Self-control		9. Integrity	18. Helpfulness
10. Map literacy	21. Political literacy			
11. Legal literacy				

The letters and numbers preceding the outcomes in Table 2 correspond to the codes used in the curriculum (Figure 1).
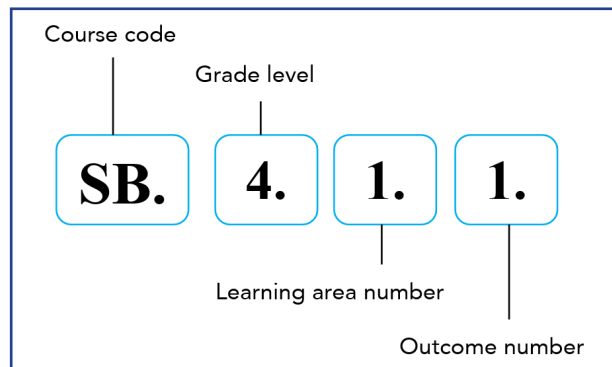

Figure 1. Example of Numbering the Outcomes
Source: Ministry of National Education (2018)

Netnography of Sustainable Tourism in the Triangle of Skills, Values and Outcomes

Regarding the learning outcomes, document analysis revealed that nearly 25% of the 131 outcomes are directly or indirectly related to tourism, as shown in Table 2.

Table 2. Tourism Related Outcomes in SSC

Grade	Learning Area	Outcome
4	**Culture and Heritage**	SB.4.2.2. Provides examples by researching the elements reflecting the national culture in his/her family and environment.
	People, Places and Environments	SB.4.3.3. Distinguishes natural and human elements in his/her environment.
	Production, Distribution and Consumption	SB.4.5.4. Creates a sample budget of his/her own.
	Global Connections	SB.4.7.2. Comprehends Türkiye's relations with its neighbors and other Turkish Republics.
	Global Connections	SB.4.7.3. Compares the cultural elements of different countries with the cultural elements of Türkiye.
5	**Culture and Heritage**	SB.5.2.1. Recognizes the important contributions of Anatolian and Mesopotamian civilizations to human history based on their concrete remains.
	Culture and Heritage	SB.5.2.2. Presents natural assets and historical places, objects and artifacts in his/her environment.
	Culture and Heritage	SB.5.2.3. Compares the cultural characteristics of various parts of our country with the cultural characteristics of the environment in which he/she lives and identifies similar and different elements between them.
	Culture and Heritage	SB.5.2.4. Analyses the role of cultural elements in the coexistence of people.
	Culture and Heritage	SB.5.2.5. Evaluates the historical development of cultural elements in daily life.
	People, Places and Environments	SB.5.3.2. Explains the effects of climate on human activities in his/her environment by giving examples from his/her daily life.
	People, Places and Environments	SB.5.3.3. Provides examples of the effects of natural and human characteristics on population and settlement in and around the place where he/she lives.
	Science, Technology and Society	SB.5.4.1. Discusses the impact of technology use on socialization and social relations.
	Production, Distribution and Consumption	SB.5.5.1. Analyses the economic activities of the place where he/she lives and his/her environment.
	Production, Distribution and Consumption	SB.5.5.2. Recognizes the professions that develop depending on the economic activities in and around the place where he/she lives.
	Production, Distribution and Consumption	SB.5.5.3. Analyses the effects of economic activities in the environment on people's social lives.
	Global Connections	SB.5.7.1. Researches the role of the place where he/she lives and its environment in the economic relations between Türkiye and other countries.
	Global Connections	SB.5.7.2. Discusses the effects of communication and transportation technology on economic relations between countries.
	Global Connections	SB.5.7.3. Explains the importance of tourism in international relations.
	Global Connections	SB.5.7.4. Provides examples of common heritage elements found in various countries.

Grade	Learning Area	Outcome
6	**Culture and Heritage**	SB.6.2.5. Explains the role of historical trade routes in political, cultural and economic relations between societies.
	People, Places and Environments	SB.6.3.2. Examines the landforms, climate characteristics and vegetation cover of Türkiye's basic physical geography features on the relevant maps.
	People, Places and Environments	SB.6.3.3. Shows the basic human geography features of Türkiye on the relevant maps.
	Science, Technology and Society	SB.6.4.2. Expresses ideas about the effects of scientific and technological developments on future life.
	Production, Distribution and Consumption	SB.6.5.1. Relates the resources and economic activities of our country.
	Production, Distribution and Consumption	SB.6.5.3. Prepares investment and marketing project proposals taking into account the geographical characteristics of Türkiye.
	Global Connections	SB.6.7.1. Analyses Türkiye's cultural, social, political and economic relations with the Turkish Republics and neighboring states.
	Global Connections	SB.6.7.2. Analyses Türkiye's economic relations with other countries.
7	**Individual and Society**	SB.7.1.2. Uses positive ways of communication in individual and social relations.
	People, Places and Environments	SB.7.3.4. Provides examples of negative situations that may arise in case of restriction of the freedom of settlement and travel among fundamental rights.

According to Table 2, 30 of the 131 outcomes in the spiral-structured SSC were found to be related to tourism. An examination of the distribution of these outcomes across learning areas indicates that the "Global Connections" learning area contains the highest number of tourism-related outcomes, with a total of eight. This is followed by the "Culture and Heritage" learning area with seven outcomes, and the "People, Places, and Environments" and "Production, Distribution, and Consumption" areas, each with six outcomes. The learning area with the fewest tourism-related outcomes (one) was found to be "Individual and Society." The learning area that does not contain any tourism-related outcomes, and therefore is not included in the table, is "Active Citizenship." The outcomes emphasizing tourism are primarily concentrated in the 5th grade, with a total of 15 outcomes. Outcomes represent the behaviors and/or actions that students are expected to acquire. From this perspective, the sustainability of tourism-related outcomes reflects the sustainability of both society and tourism. The outcomes related to sustainable tourism and the dimensions they are associated with are presented in Table 3.

Table 3. Sustainable Tourism Related Outcomes in SSC

Grade	Learning Area	Outcome	Sustainability Dimension
4	**Individual and Society**	SB.4.1.5. Respects the different characteristics of other individuals.	Social
	Science, Technology and Society	SB.4.4.5. Uses technological products without harming himself/herself, others and nature.	Environmental
	Production, Distribution and Consumption	SB.4.5.2. Recognizes the main economic activities in his/her family and immediate environment.	Economic
	Production, Distribution and Consumption	SB.4.5.5. Uses the resources around him/her without wasting them.	Environmental
	Global Connections	SB.4.7.1. Presents various countries in the world.	Social
	Global Connections	SB.4.7.4. Respects different cultures.	Social

5	**Science, Technology and Society**	SB.5.4.2. Questions the accuracy and reliability of the information he/she accesses online.	Social/ Economic
	Production, Distribution and Consumption	SB.5.5.6. Exercises his/her rights as a conscious consumer.	Social/ Economic
6	**Individual and Society**	SB.6.1.2. Analyses the place and role of social, cultural and historical ties in the formation of social unity.	Social
	Individual and Society	SB.6.1.3. Questions prejudices against differences in order to live in harmony in society.	Social
	Individual and Society	SB.6.1.5. Defends that solutions to a problem should be based on rights, responsibilities and freedoms.	Social/ Economic
	Production, Distribution and Consumption	SB.6.5.2. Analyses the effects of unconscious consumption of resources on living life.	Environmental
7	**Individual and Society**	SB.7.1.1. Analyses attitudes and behaviors that affect communication and questions his/her own attitudes and behaviors.	Social
	Individual and Society	SB.7.1.4. Exercises his/her rights and fulfils his/her responsibilities while using communication tools.	Social
	Global Connections	SB.7.7.3. Questions stereotypes about various cultures.	Social

Upon examining Table 3, it is evident that only 15 of the 131 total outcomes are related to sustainable tourism. Six outcomes are found at the 4th grade level, two at the 5th grade level, four at the 6th grade level, and three at the 7th grade level. Another notable point is that the majority of the outcomes are related to the social dimension of sustainable tourism, while fewer outcomes are associated with the environmental and economic dimensions. Additionally, it was found that three outcomes are related to both the social and economic dimensions. In the environmental dimension, outcomes such as "using technological products without harming nature" and "using resources without wasting" are included. In the economic dimension, outcomes such as "recognizing the main economic activities in their environment" and "exercising rights as a conscious consumer" are emphasized. In the social dimension, key outcomes include "questioning stereotypes" and "examining attitudes and behaviors in communication."

Findings on the Relationship between the Skills, Values and Outcomes of BlaBlaCar Application Users and the Economic Dimension of Sustainable Tourism

Through the analysis of all reviews related to BlaBlaCar on the Sikayetvar.com website, two main themes were identified: "economic impact on sustainable tourism" and "socio-cultural impact on sustainable tourism." The first theme, "economic impact on sus-

tainable tourism," consists of seven sub-themes and nine codes (Figure 2). The numbers in parentheses next to the codes indicate how many users mentioned the respective code. A total of 178 codes makes up Theme 1.
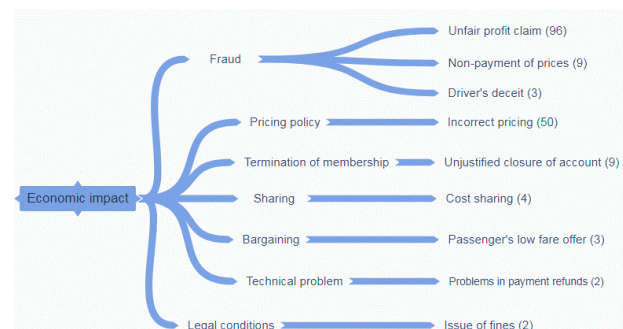
Figure 2. Economic Impact on Sustainable Tourism (Theme 1)

Unfair profit claims, non-payment of fares and driver fraud are factors that affect users economically and contribute to the problem of fraud. Prominent user statements that highlight this issue are as follows: "The trip advertisement says 100 TL, but when I send a message, he asks for five times that amount, 500 TL (P10, P65)." "They have turned the application into a business (P22)." "The purpose of BlaBla's establishment is not profit. If people are making a profit, it should be taxed (P55)." In addition to passengers' reviews about being overcharged by drivers, some drivers also made comments indicating that some passengers did not pay the fare. Some of

the complaints regarding this issue are as follows: "The person I picked up said he would pay through IBAN, but when we arrived at the destination, he hurried away without paying (P7)." "A woman got into my car along with two others. When she got off, she said she did not have any money and would transfer it to my IBAN number. She did not transfer my money and said that she would file a complaint against me with the prosecutor's office for bothering her (P198)." On the issue of driver fraud, some users made the following remarks:

> "I had to travel from Denizli to Bodrum, this is what happened to me: They want to receive payment via a link by sharing fake trips and the amounts in the links are like 1000 TL, and they keep sending links with reduced amounts until they get it, people who use BlaBlaCar, please let's pay attention to this issue (P205)." "They take people's money and then cancel the trip (P98)."

In addition to the comments made by drivers and passengers about one another, there are also comments regarding the pricing policy of the BlaBlaCar application. BlaBlaCar calculates the maximum amounts that drivers can charge based on the distance travelled. However, many drivers argue that these amounts are significantly lower than the fuel costs they incur and should be updated. Some drivers even suggest that the depreciation of their vehicles should be factored into these fees. In contrast, as indicated by the statements above, passengers do not agree with drivers asking for amounts higher than those set by the application. One user who blames the application for the conflict between passengers and drivers over pricing explains the situation with the following statement: ""BlaBlaCar sets its prices based on fuel costs from five years ago, which leads to disputes between vehicle owners and passengers. I believe they do this deliberately and with bad intentions (P16)." A user who uses the service offered by the application but prefers that the application does not interfere with the pricing commented: "They don't know how much fuel costs, and I guess they don't know how much car parts cost. No one has to drive for free. If we can agree on a reasonable price among ourselves, the rest is none of your business (P39)."

A penalty is imposed on the drivers who either demand fares higher than the established rates or use vehicles not suitable for the journey. This penalty is enforced by deactivating the drivers' accounts if complaints are made by passengers about such behavior. The comments from drivers who claim their accounts were unfairly deactivated are as follows: "BlaBlaCar is unfairly closing accounts (P69)." "The account I've been using for 8 years was suspended. When I emailed them, I was told that a passenger claimed I had asked for a different fare, which was given as the reason. This never happened. I think a passenger said something like that when I did not accept what he wanted (P63)." A driver who objected to the deactivation of his account, despite admitting that he had charged more than the price set by the app, expressed this situation in the following words: "The app sets the price at 200 TL, we tell passengers 500 TL. They complain about us and suspend our account. No one should be sorry about this. There is absolutely no profit being made here. I complain that my account was examined in detail and closed unjustly (P57)."

Although they are few in number, there are also positive comments about the BlaBlaCar application on Sikayetvar.com. These reviews generally focus on the economic aspects of the service: "BlaBlaCar is a big success, especially at this time when fuel prices are rising, as it allows sharing travel costs (K151)." "The main purpose here is to share the trip, and I have no intention of making money (K5)." "Please do not confuse me, and others like me who share rides as per the app's intended purpose, with those using it for commercial gain or only accepting female passengers (K40)."

Since the route prices set by the application are considered low by drivers, they may ask passengers to pay more than the amounts defined by the app, resulting in bargaining between passengers and drivers. This situation is reflected in user reviews as follows:

> "Bus tickets to İstanbul currently cost 700 TL. I'm offering 300 TL with my private car, but the offers I receive are around 150 TL, 90 TL. Just getting in and out of a taxi costs 100 TL. Shame on you (K14)." "For someone who thinks it's fair to travel a route where the bus fare is 800 TL for just 300 TL in a private car, they should question why the Turkish Lira has lost value or eat less and buy themselves a car (K56)."

After passengers make their payment for the trip, issues may arise with refunds if the trip is cancelled. Statements of participants on this matter are as follows:

> "I sent an offer to a female driver named X, and she accepted. I arrived at the designated meeting point, but shortly before the trip, she told me she wouldn't be taking me on this journey. I had to cancel my trip. However, the refund was not processed to my PayPal account. Could you please refund my money? (K99)." "The refund for my cancelled trip has not been made. It was supposed to be processed within 5 days, but it's been 10 days, and I still haven't received any payment (K58)."

In the trips made through the BlaBlaCar platform, the amount passengers pay to drivers is referred to as a "cost contribution," and this amount is set by the application. The application aims to fairly distribute the travel costs ensuring that drivers do not

make a profit. Even if the driver fills all the seats in their vehicle, they do not make a profit but are only able to cover fuel expenses by requesting the cost contribution set by the platform from the passengers. Seven and Öksüzoğlu (2020) highlight that if a profit is made, the transport contract outlined in Article 850 of the Turkish Commercial Code (TCC) must be taken into consideration. The transport contract, which is required when passengers or goods are carried for a price, is not valid if there is no obligation to pay a transport fare. Therefore, they argue that when the driver does not earn a profit, a transport contract cannot be considered applicable. Whether the trips made through the BlaBlaCar platform fall under the category of "gratuitous transport" or require a transport contract remains a debated issue today. Since a clear legal framework has not been established, drivers and passengers who are subject to traffic inspections during their trip are fined. The following statements from two participants support this:

> "I was fined 20,000 liras for unlicensed transportation and my vehicle was blocked for 60 days, even though I met my passengers through the app and stated that no fee was charged. Passengers were also fined 1,300 liras (P53)." "The application is illegal. If detected, high fines are imposed on the passenger and driver (P23)."

Findings on the Relationship between the Skills, Values and Outcomes of BlaBlaCar Application Users and the Social Dimension of Sustainable Tourism

In Theme 2, referred to as the socio-cultural impact of sustainable tourism, six sub-themes are identified: "harassment," "deception," "indifference," "insult," "irresponsibility," and "socialization." The total number of codes contributing to these sub-themes and, consequently, to the main theme is 155 (Figure 3).

Figure 3. Socio-Cultural Impact on Sustainable Tourism (Theme 2)

Within the theme of socio-cultural impact, the sub-theme that received the most comments from users was harassment. There are two situations that contributed to the emergence of the harassment sub-theme: first, male drivers preferring only female passengers, and second, male drivers harassing the female passengers with whom they share the trip. Some users commented on drivers who only accept female passengers as follows: "[...] He added the phrase 'ladies only' in the description of the ad... (P139)." "[...] Because I am a man, he replies that the vehicle is full. After 15-20 minutes, when my girlfriend next to me asks, he says there is an empty seat (P125)." "[...] We tried it with 6 people, the result was always the same. Some even offered not to charge any fare for my girlfriend (P211)." "Although I don't want to generalize all users, ninety percent of them only accept women (P32)." "Male passengers are not preferred; most members use it for dating purposes (P88)." "[...] The ultimate purpose of the trip is seen as sexual satisfaction (P97)." A driver who admitted that he only accepts female passengers explained the reason for this as follows: "Yes, all of my passengers have been women so far, and I have not charged any of them. The reason I use the application is my panic attack disorder. I cannot travel alone because of this. I would prefer a woman who does not shut up than a male passenger sitting next to me, of course (P154)." Regarding the issue of driver harassment, some of the users stated as follows:

> "There are people who use the trip as an excuse to get our phone numbers and make ridiculous offers (P183)." "I was harassed by a man. I reported the member. Nothing has been done, he still continues to advertise. Don't you realize that women who ride in this person's car are at risk? Such situations need to be prevented, I am the victim here (P207)."

Some of the drivers do not respond to passenger messages despite posting a ride, say the vehicle is full when it is empty, cancel rides for no reason, use fake profiles, and make misleading comments about their passengers on the app. Quotes from user comments on driver dishonesty are as follows: "Trips are cancelled arbitrarily. They even advertise with someone else's account (P110)." "[...] There are men who open a female profile (P35)." Two users who stated that the comments made about them were unfair expressed their opinions as follows: "Although I told the BlaBlaCar help service that the comment made about me was false, they did not respond back (P135)." "I want the negative comment to be corrected, otherwise I will take legal action against [BlaBlaCar] (P47)."

It was observed that both the drivers and the passengers criticized one another for insensitivity, with most of these criticisms coming from the passengers. Some important comments made by the passengers who expressed that they felt victimized due to trip cancellations or being left stranded outside the agreed location are as follows: "I received information from the driver before departure and waited at the waiting point, but he did not show up. I was victimized at 10 o'clock at night and could not find another

vehicle. I had no place to stay. I was hung out to dry (K100)." "Everything that was booked was turned upside down. The money we spent on the hotel reservation was wasted (P103)." "My friends who had a shift the next morning could neither arrange a bus ticket nor make it to their shift (P146)." "We could not go to the university for the exam, our semester was extended, and we have suffered financial losses (P167)." "He left me halfway by saying that his route had changed (P15)." Three of the drivers explained their cases of victimization as follows:

> "We are victimized because of the actions and behaviors of the passengers. The people we help with peanuts are busy complaining and closing BlaBlaCar accounts when there is empty seat, the distances we travel are not short, we have to choose people, if we accept everyone, what is the difference between us and pirate drivers (P69)?" "[...] At the same time, sometimes there are people who abuse your property, they wear it out, they can even damage it (P45)." "I couldn't turn someone away, I took him with his dog because he was a student, and my car was full of hair (P177)."

In disagreements between drivers and passengers, most of the insults and inappropriate behaviors come from the drivers. Both drivers and passengers commented on this issue as follows: "[…] There are people who get nasty and insult and swear when you say the price is too high (K95)." "When I say I filed a complaint, they say go ahead and complain to whomever you want, I indicated 18 TL as a representative amount (K123)." "[...] He threatened me when I said I would complain about his account (P61)." "It is not right to think that passengers are always right. It is unacceptable for some people to behave like commercial vehicle drivers (P5)." "People ask you to pick them up from a different route or to carry their items (P30)."

Some of the drivers on the platform who advertise ridesharing use company-owned vehicles or their freight vehicles instead of their personal cars. Therefore, passengers also stated that these vehicles are not suitable for travelling: "The driver picks up passengers without the company's approval. His vehicle is a long truck (P13)." "The model of the vehicle to be travelled was not mentioned and there was no information about that. The vehicle belonged to a cargo company and was a lorry (P176)." One passenger's comment on another irresponsible behavior, the driver's use of banned substances during the travel, is as follows: "Person X smoked weed in the car. I will file a complaint. Those who developed this application have not taken my complaint into consideration yet (P15)!"

The purpose of the application is to benefit people economically, socially and environmentally by providing a platform for shared travel. Upon analyzing user comments, it is evident that they mostly focus on the economic aspect of the application. Although the number of comments on social experiences come second to economic comments, there is only one positive review on this subject: "[...] You also meet new people and gain experience. A human experience (P45)."

Discussion

The social studies course plays a significant role in values education by aiming to equip students with the knowledge, skills, and values essential for participating in societal life. According to the findings, the values embraced by society and expressed in the social studies curriculum have deteriorated. This raises questions regarding the true reach and effectiveness of value education in social studies. Another key objective of the social studies course is to familiarize students with tourism, elucidate its significance, and cultivate awareness of its fundamental components (Yıldırım & Çetin, 2022). An analysis of the findings presented in Table 1 reveals that the skills and values included in the curriculum contribute to the development of tourism awareness in individuals. Similarly, the program outcomes presented in Table 2 support individuals' development in technological, socio-cultural, environmental, and economic fields, which may relate to tourism. However, the findings indicate a potential disconnect between the theoretical topics outlined in the curriculum to develop tourism awareness and the challenges faced during implementation.

There are potential consequences of the inadequacies in the skills, values, and outcomes that are theoretically claimed to be transferred into practice, particularly in terms of the dimensions of sustainable development. For instance, fraudulent activities stemming from behaviors such as deceit, corruption, and false statements can cause significant damage to businesses. According to a report prepared by the Association of Certified Fraud Examiners, businesses in the United States lost 2 million dollars in 2006 alone due to fraudulent misrepresentation (Krippel et al., 2008). In addition to the direct economic impacts caused by fraudulent activities, businesses may also incur indirect economic losses due to the resulting negative image. Indeed, image plays a crucial role in guiding individuals' decision-making processes when selecting a destination and serves as a distinguishing factor among competing destinations (Phau, Shanka & Dhayan, 2010). The findings reveal that fraudulent activities originating from both drivers and passengers contribute to a negative image as well as various economic losses. Such incidents, which undermine society's sense of security, can render tourism activities economically unsustainable. This view is supported by the fact that visitors tend to choose travel destinations based on

their personal perceptions of safety and security (Pizam, 1982).

Correctly establishing the pricing policy for services is one of the key elements that ensures the economic sustainability of tourism activities. Forbes et al. (2014) stated that poor pricing policies can lead to a decline in tourism activities, causing developing countries to lose the economic benefits they might otherwise gain from tourism. The findings of this study indicate that the pricing policy of the travel application in question has not been appropriately defined for passengers or drivers. As noted by participants, the erroneous implementation of the pricing policy may be attributed to the neglect of the primary cost factor: fuel price. Moreover, flaws in the pricing policy can lead drivers and passengers to negotiate and agree on a new price through bargaining. The prices determined through this method often become a new source of conflict between the parties, leaving both sides dissatisfied with the transaction. Findings related to behaviors stemming from both the flawed pricing policy and the bargaining process indicate that travel activities in Türkiye are not economically sustainable.

Rights and regulations play a crucial role in shaping travel and tourism opportunities. The impact of these rights and regulations has the power to both increase and restrict travel mobility (Coles & Hall, 2011). Such regulations are implemented to promote tourism products in both domestic and international markets, engage with national and international organizations and create favorable conditions for the development of the tourism industry (Safaeva et al., 2019). However, the findings suggest that the favorable conditions expected from the implementation of rights and regulations have not been realized. Specifically, with regard to the requirement for transport permits, account closures, and refund conditions, the legal and technical foundations of the travel application's terms of use are found to be inadequate and ambiguous. The occurrence of unethical offers by the parties and the resulting conflicts can be attributed to the inadequacy of the travel application's terms of use. Such issues related to travel activities could result in significant damage to the tourism industry, which is one of the main sectors it represents. The tourism industry, comprising various sectors, plays a crucial role in economic, political, and socio-cultural dimensions of every country (Safaeva et al., 2019). Therefore, to enhance the effectiveness of services in tourism, it is essential to implement comprehensive legal regulations aimed at addressing sector-specific problems (Dmitrieva et al., 2020).

The sharing economy is a socio-economic model based on renting, sharing, and borrowing, developed as a response to the concept of overconsumption. It is widely recognized in the transportation sector through applications like Uber and BlaBlaCar (Curtis & Mont, 2020). The main objective of the BlaBlaCar application is to share costs, such as fuel and road expenses, entirely within the framework of the sharing economy, without any profit-oriented exchange of services (BlaBlaCar, 2024). The findings, based on a few positive reviews, indicate that although inefficient, some economic benefit can still be derived from the service exchange offered by the application. The inefficiency of the transportation service offered by the application can be attributed to the aforementioned regulatory inadequacies, which render the service economically unsustainable. Addressing these issues through targeted actions could, in fact, render the application far more efficient in economic terms. By allowing individuals to fill the empty seats in their vehicles, the application offers an ecological and economic solution to the growing number of vehicles in the transportation system (Cohen & Kietzmann, 2014). In this context, when the overall conflicts between parties are considered, the travel application has not fully achieved its economic objectives.

Negative interactions lead to a decline in overall travel quality (Korzay & Alvarez, 2005), and one of the negative behaviors is harassment, where tourists feel uncomfortable or threatened (Alrawadieha et al., 2019). The findings show that harassment is the most significant negative behavior within socio-cultural factors. Similarly, other research has shown that another prominent sharing economy application, Uber, faced serious issues due to harassment allegations made by a former employee (Clark & Myers, 2018). The cases identified in the study, which can result in substantial economic losses and severely undermine trust-based interpersonal relationships, can be attributed to the use of travel applications for reasons other than their intended function. Indeed, Alrawadieha et al. (2019) found that harassment has several detrimental outcomes, including reduced satisfaction, a decline in experience quality, and a negative impact on the intention to recommend.

Several uncertainties are introduced with ride-sharing-based travel, including the distrust caused by fake profiles, uncertainty about whether traffic rules will be followed, the potential for substance abuse, and the possibility of traveling in poorly maintained, uncomfortable, and unsafe vehicles (Paul, 2023). These uncertainties are consistent with the findings of the current study. As shown in Figure 3, passenger and driver complaints revolve around behaviors that foster insecurity and uncertainty, such as creating fake profiles, unjustified trip cancellations, misleading reviews, insults stemming from unfair criticism, traveling in inappropriate vehicles, and the use of banned substances. These behaviors, which highlight the unsustainability of social relations from a socio-cultural perspective, are driving people—especially women and the elderly—away from ride-sharing,

as noted in Loukaitou-Sideris' (2014) study.

The weakening of social connections (Parigi & State, 2014), along with negative social impacts such as safety concerns and class divisions (Edelman, Luca, & Svirsky, 2017), can emerge as significant downsides of travel applications. However, these platforms can also offer social benefits, such as opportunities for drivers and passengers to get to know one another and form new friendships (Fitzmaurice et al., 2020). Among the findings, only one user comment reflects this positive outcome. Given the overall nature of relationships developed through the travel application, it would be misleading to conclude that human relations are socio-culturally healthy based solely on this single positive behavior.

Conclusion and Implications

The social studies course has multifaceted objectives, including teaching individuals their basic rights, helping them discover their talents, instilling values as part of society, promoting respect for human rights, and teaching them to protect their own rights (Tonga, 2022). In line with these objectives and in response to the evolving and changing structure of society, the social studies course encompasses a wide range of topics, concepts, and fields (İlhan, Şeker, & Kapıcı, 2015). Tourism is one of the concepts taught to students in the SSC due to its significant contribution to the economic and socio-cultural development of countries (Kaya, 2019). Additionally, tourism has a long-standing connection with sustainability, as it is one of the first industries to define principles and action plans aimed at implementing sustainable tourism (Budeanu et al., 2016). In this context, the aim of this study is to determine to what extent the desired outcomes have been achieved through social studies education, which aims to impart the skills and values necessary for sustainable tourism. However, the data obtained in the study did not reveal any findings related to the environmental dimension of sustainability. Therefore, the study focuses on the social and economic dimensions of sustainability.

This study is considered important because it reveals the extent to which individuals possess the skills, values, and outcomes necessary for the social and economic aspects of sustainability and evaluates the adequacy of the social studies curriculum in addressing related issues. Identifying the shortcomings of the social studies program in instilling the intended outcomes will provide valuable insights for practitioners, both theoretically and practically, on the steps needed to address these gaps. In this context, the recommendations made in the study to address existing deficiencies are expected to contribute to societal well-being. Additionally, the periodic revisions of the social studies curriculum and the continued implementation of action plans related to

sustainability underscore the study's relevance and timeliness.

In this study, the BlaBlaCar travel application has served as a litmus test, highlighting societal trends, both positive and negative. The archival findings indicate that all the values and skills included in the social studies program contribute to a deeper understanding of sustainability in tourism. Similarly, nearly one-third of the program's outcomes are shown to support the development of tourism and the concept of sustainability within tourism. However, the findings from the field indicate that all these elements, which are conveyed theoretically in the curriculum, cannot be sufficiently reflected in practice. Moreover, individual behaviors have created negative effects both economically and socio-culturally. Among these negative impacts, the economic domain accounts for 53.4%, while the socio-cultural domain represents 46.6%. This result highlights that when addressing the shortcomings of the social studies curriculum, equal importance should be given to both areas in a balanced manner. The study reveals significant implications for eliminating these deficiencies through the balanced policies it proposes.

Theoretical and Practical Implications

Findings indicate that the values embraced by society and expressed in the social studies curriculum have deteriorated. Redesigning educational programs can be prioritized to prevent the deterioration of values. As Deveci & Selanik-Ay (2009) stated, programs with planned activities can incorporate education with the appropriate content to help students acquire these values, and school-family collaboration can also be crucial in this regard. Additionally, informational seminars on values education could be offered to families. Furthermore, in-service training could be provided to social studies teachers, enabling them to design a more structured, real-life, activity-based teaching process for values education. The fact that students with different cultural characteristics are in the same class can also make the implementation of SSC difficult. As Dack and Triplett (2020) stated, teachers can adjust their teaching strategies to modify the social studies course to accommodate these differences. In addition to values, skills and outcomes are fundamental topics that should be emphasized not only in social studies but also in tourism education. A tourism-themed learning area could be created within the SSC, where knowledge, skills, and values related to tourism awareness could be incorporated into the program.

Research findings show that the skills, values, and outcomes theoretically conveyed in the curriculum are not sufficiently reflected in practice. Building on this, in social studies courses, the effects of negative behaviors such as harassment, dishonesty, and insult could be taught to students in a realistic manner

through workshops, drama methods, metaverse, or virtual reality applications. In other words, innovative methods could be employed to focus on value-based education when teaching tourism-related outcomes in the social studies curriculum, providing students with practical, immersive learning experiences that mirror real-world situations. Through these experiences, the theoretically conveyed information can become more lasting, helping shape the desired behaviors in individuals. As societies transition from traditional to modern structures, changes in the socio-cultural and demographic characteristics of developing countries lead to significant changes in their social structures (Kızmaz, 2012). The study's negative effects could stem from the lack of a social studies curriculum that adapts to Türkiye's evolving development. To address this issue, the social studies curriculum implemented by a developed European country with similar cultural characteristics during its developmental period could be studied for reference. Additionally, users seem to exploit the flexibility of the BlaBlaCar app features, leading to negative sociocultural and economic impacts. A study to identify the features that can make the application more restrictive in order to prevent such negative effects would also make a significant contribution to the field.

This study shows that individual behaviors that do not align with the principles of sustainability in tourism have the greatest impact on the economic and socio-cultural domains. It appears that addressing behaviors that negatively affect sustainability principles in the economic domain is relatively easier. The negative attitudes regarding this area can be explained primarily by policy gaps and legal deficiencies. By implementing appropriate legal measures and introducing new regulations, the negative economic impacts can be mitigated. For example, as seen in the more formal and regulated Uber platform, users' identity information, demographic details, and the technical and maintenance status of vehicles could be verified for accuracy by making the sharing of this information mandatory. This approach could prevent negative behaviors arising from distrust and uncertainty between parties, leading to more efficient economic outcomes.

The identified negative economic impacts related to the understanding of sustainability in tourism are, in order of significance, fraud, incorrect pricing policies, and legal gaps. In contrast, the negative socio-cultural impacts are predominantly caused by harassment, followed by behaviors such as dishonesty and actions that create distrust. It can be argued that the negative economic impacts can be reversed in the short to medium term through the implementation of correct policies and legal regulations. However, as Kristiana et al. (2024) also note, it is important to remember that societal values and cultural practices require long-term and gradual

changes. For this reason, it is crucial for countries to make educational arrangements that will create permanent effects, especially on socio-cultural values.

The research findings have shown that the BlaBlaCar application has serious negative effects, both socio-culturally and economically. Over time, this may lead to the abandonment of such technological applications in favor of traditional means of transportation. This could very likely pose a significant obstacle to the development of technology-based initiatives in that country. As Wang & Chien (2007) stated, the elimination of negative socio-cultural and economic effects will enable the development of such initiatives in the country, given the significant role technology plays in national development.

Limitations and Directions for Future Research

Although this study provides guidance to practitioners in the field from both an economic and socio-cultural perspective, it also has some limitations. This research has bridged two distinct but interconnected fields—social studies and tourism. It also sought to highlight the relationship between social studies education and sustainable tourism. However, as previously mentioned, the data for this study were obtained from a complaint website, meaning that nearly all the feedback was negative. Future research could broaden the scope to include positive feedback when available. Expanding the study to other countries where the BlaBlaCar application is used could also provide more comprehensive insights into the effects of sustainability. Additionally, analyzing other platforms as part of the sample could allow for comparative evaluations, enabling researchers to identify the most effective features for preserving values. Moreover, exploring the sustainability of tourism within different sectors other than transportation—such as food and beverage, accommodation, and recreation businesses—would diversify the understanding of sustainable practices. By doing so, integrating findings from various platforms and sectors could contribute to a more holistic view of sustainability in tourism. Thus, the social studies curriculum's role in addressing areas relevant to the public good could be further clarified and made more explicit.

Disclosure Statements

No potential conflict of interest was reported by the author(s).

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Pursuing Identity as a Global Power: Sport as a Nexus for Public Diplomacy and Strategic Communication in the Century of Türkiye

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Abstract

The dichotomy between great powers and weak states has long dominated international politics. The rise of middle powers has challenged this power-centered structure, and some middle powers have attempted to position themselves as pivotal players in global politics. Türkiye's two mottos, "The World is bigger than five" and "The Century of Türkiye," epitomize this challenge. Nevertheless, being recognized as a global player requires solid political cohesion at home and the projection of that identity to the international community, along with its acknowledgment by the recipients. Achieving this internal and external recognition can be facilitated through public diplomacy and strategic communication, and this paper explores the potential use of sports as a tool for public diplomacy and strategic communication. The focal point of this study is how Türkiye positions sport within the context of its public diplomacy and strategic communication endeavors. In this regard, a comprehensive discussion is undertaken on Türkiye's utilization of sports diplomacy, with the objective of examining the study's theoretical frameworks. To this end, a mixed research method was employed, encompassing a literature review and content analysis. The literature review section is based on international academic publications relevant to public diplomacy, strategic communication, and the intersection of sport and diplomacy. The content analysis section involves analyzing news reflected in the international press and the reports and announcements channels of institutions that are effective in Türkiye's foreign policy.

Keywords: Sport, Public Diplomacy, Strategic Communication, Great Powers, Weak States.

JEL Codes: 00, H56, N70

Introduction

For a considerable period, global politics has revolved around two leading players: great powers and small states. However, the post-Cold War era witnessed the rise of a new category of states that sought to carve out their own distinct position. These so-called middle-power countries, with their unique and often overlooked diplomatic strategies, have not just made a meaningful impact on the world stage but have significantly enriched the landscape of international relations. Positioned between major powers and smaller states, these emerging nations are actively working to assert their influence on the global stage through diplomatic channels, challenging the prevalent great-power-focused narrative and reshaping the global political landscape.

In the dynamic landscape of contemporary global politics, middle powers are no longer passive observers but influential actors. They have the potential to shape various aspects of international relations, including the establishment of platforms such as the G20[1] and MIKTA[2] . These serve as clear evidence of the increasingly vital role of middle powers in influencing global affairs and setting international standards. The growing significance of soft power and the focus on public diplomacy further underscore the invaluable contributions of countries aspiring to achieve middle-power status.

Understanding the shifting dynamics of state relations in the ever-changing global landscape is of utmost importance. A prime example is Türkiye, a nation that has transcended the boundaries of traditional middle power and is actively striving for a more influential and dynamic role on the world stage. While Türkiye was seen previously as a significant player in middle-power diplomacy within the MIKTA group, its approach has undergone noticeable changes since the mid-2010s. Prior to 2013, Türkiye had initiated its initiatives in middle-power diplomacy; however, after 2014, it adopted a completely new approach (Karakuş & Ayhan, 2024: 6-7). This shift in Türkiye's middle-power diplomacy during this time exhibited significant variability that existing theories fail to explain, making it a compelling case study for middle-power discourses.

This transformation is not just a vision but a tangible reality in Türkiye's visionary pursuit of a "Century of Türkiye" and the gradual evolution of its foreign policy declarations. Until the early 2010s, Türkiye was positioned and perceived as a typical middle power. However, its position has shifted, and it is now seeking a more active and influential role in global affairs. Türkiye's active role in global politics is a testament to its ambition and strategic approach, which should not be underestimated. The research questions of this study are designed as follows:

1.	What is the reason(s) for the change in Türkiye's middle power position, especially after the 2010s?

2.	What are Türkiye's objectives in implementing this shift in its power position?

In addressing the first question, the study puts forward the hypothesis that Türkiye, as a compassionate nation, adopts a conciliatory stance in regional and global disputes or conflict areas. As a stabilizing power, Türkiye (Altun, 2022: 26) is a strong ally, a decisive actor, and a pivotal figure in resolving regional and global issues. Commenting on these changes, political analyst and freelance journalist Klaus Jurgens (2023, p. 27) notes, "Analyzing the foreign policy of modern Türkiye is a perfect case study of how a nation-state can completely reshape its approach to relations with the outside world over time."

With the second question, the study hypothesizes that Türkiye maintains an independent and national foreign policy approach, seeking to strengthen regional peace and security. Indeed, Türkiye, as a European, Middle Eastern and Asian nation at the heart of three continents, deploys all the means and capabilities of public diplomacy and strategic communication in its foreign policy. Consequently, Türkiye aims to create a more liveable world in its region and globally.

Given this, this article dissects Türkiye's ambitious aspiration for "the Century of Türkiye," its evolving international identity, and its potential for transformative global leadership, with a focused lens on the possibility of public diplomacy through sports for the profound impact of strategic communication in realizing its goal. The exploration of Türkiye's national status and goals will delve into the middle power discourse and the underlying factors shaping Türkiye's national identity while advocating for strategic communication and sports as a nexus for that. Rooted in an external perspective as academic observers, this analysis aims to provide guidance and suggestions to Türkiye as it navigates its path toward a more impactful global role.

Changes of Discourses on Middle Power Diplomacy

The concept and conduct of middle powers have been closely associated with international organizations, such as the United Nations (UN), since the aftermath of World War II, with a notable amplification

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[1]The G20 countries are Germany, the United States of America, Argentina, Australia, Brazil, China, Indonesia, France, South Africa, South Korea, India, the United Kingdom, Italy, Japan, Canada, Mexico, Russia, Saudi Arabia, Türkiye and the European Commission.

[2]A grouping of Mexico, Indonesia, Republic of Korea, Türkiye and Australia - brings together five countries from diverse cultures and regions. For more info: http://mikta.org/about/what-is-mikta/?ckattempt=1

of focus on their behaviors in the 1980s, which has gradually evolved. The discourses on middle powers can be categorized into three primary approaches. The first approach to understanding middle powers can be categorized as the positioning approach, which is aligned with realism and emphasizes quantitative factors such as the economy, military capabilities, defense spending, and population size (Larson, Paul, and Wohlforth, 2014). This approach gained prominence as the concept of middle powers gained traction. Based on their perception of their status, middle powers sought recognition (Murray, 2019) within the international community through tangible actions and roles, ultimately achieving a recognized status (Cooper & Dal, 2017).

Their standing is not solely defined by their position in the global hierarchy based on material factors, nor are they merely a collection of countries that exhibit a standardized set of behaviors. Instead, middle powers aim to establish a socially recognized status through interactions with other states, engaging in roles beyond their subjective self-identity. In the international system, status refers to the relative position of states within a hierarchical community. It encompasses collective beliefs about ranking particular states according to attributes such as wealth, military power, culture, population, governance, and diplomatic influence (Larson, Paul, and Wohlforth, 2014: 7). Recognition within the international community, as described by Murray (2019), constitutes a set of intersubjective meanings that differ from how a state defines its own identity and from its material standing. Thus, the status of a middle power is understood as a recognized identity and a social construct that reflects the complexities of international relations.

The second approach is the behavioral approach, tied to liberalism, which categorizes middle powers based on their conduct in international affairs, such as engaging in multilateral solutions, international activism, and coalition-building with like-minded countries. They argue that middle powers exhibit unique diplomatic behaviors that differentiate them from major and weaker states. Referred to as the intrinsic impulse of the middle power, this approach suggests that middle powers can effectively pursue altruistic diplomacy in ways that differ from traditional diplomatic behaviors (Cooper, 2011: 317-318). This includes anti-hegemony, multilateralism, mediation, coalition building, niche diplomacy, and normative diplomacy, often called "good international citizenship diplomacy" (Gilley & O'Neil, 2014: 12-13; Şehitoğlu, 2024: 317-318).

Lastly, the identity approach, linked with constructivism (Cha, 2019), seeks to forecast and explain a country's behavior based on its self-perception and definition of its middle power identity, particularly highlighting the role of values, ideas, and norms in

foreign policy and international politics. This approach is closely related to the behavioral approach, as both emphasize the impact of values, ideas, and norms on foreign policy and international politics. While it focuses on discursive behaviors, such as policymakers' speeches, it is important to note that simply identifying as a middle power does not automatically confer that status. In some instances, the claim to being a middle power may be nothing more than political rhetoric.

Regardless of the abovementioned approach, the authors argue that the concept of middle-power diplomacy encompasses several vital aspects. Firstly, middle powers are typically opposed to hegemonic influence, often due to having experienced interference from more powerful neighboring countries. As a result, they tend to support a multipolar world order. Additionally, middle powers often serve as mediators and facilitators, resolving conflicts between major powers and promoting peaceful resolutions. They also engage in specialized diplomacy beyond the traditional realms dominated by significant powers through coalition-building. Lastly, middle powers are seen as essential in promoting and upholding values such as human rights, environmental protection, and development assistance.

The global landscape of international relations has experienced significant shifts, prompting a reevaluation of the roles and behaviors of middle powers. This transformation can be attributed to two main factors. Firstly, there has been a notable reconfiguration of power dynamics and norms in the international order, primarily influenced by the escalating rivalry between the United States (USA) and China, as well as the evolving global values. Secondly, the emergence of "emerging middle powers", such as Türkiye, Indonesia, Mexico, and Korea, alongside the more established "traditional middle powers" like Canada and Australia, has defied prior assumptions about the characteristics and conduct of middle powers that were primarily established in the late 1980s (Kim, 2020: 3-4).

The traditional classification of middle powers in international relations highlights the influence of values, ideas, and norms on foreign policy while acknowledging that it is not inherently biased toward liberal perspectives. However, since the 1990s, this conventional classification has been disrupted by the ascent of "non-Western emerging middle powers", including Korea, Indonesia, Türkiye, and Mexico, alongside the "traditional" middle powers, such as Australia, Canada, and the Nordic countries (Ungerer, 2007; Lee, et al 2015). This paradigm shift in middle-power diplomacy diverges from past approaches in several significant ways.

Middle powers now exhibit significant diversity in their shared values, norms, and behaviors, resulting in a less homogeneous grouping. Some emerging

middle powers aspire to a status beyond that of a traditional middle power, seeking regional or even global influence. While traditional middle powers seek to legitimize and maintain the liberal international order, some emerging middle powers are critical of this order and the hegemonic position of the USA, advocating for reforms in global governance. Türkiye is a stunning example of an emerging middle power that falls into this category, as evidenced by President Recep Tayyip Erdoğan's statements such as "The World is bigger than five" and "The Century of Türkiye".

In the case of Türkiye, it is crucial to consider a "status as a recognized identity approach" to national identity formation and the country's positioning. This approach emphasizes the concept of "status as a recognized identity" (Murray, 2019: 29-52), where a middle power seeks recognition in the international community through specific actions and roles based on its perception of its own status, ultimately realizing its objective status. In essence, middle power status is not solely determined by a country's position in the hierarchy of the international community on a material level or by a shared set of "standardized rules of behavior". It is somewhat influenced by subjective self-image and how countries seek recognition through their roles and interactions with others, ultimately establishing a socially recognized status in the international community (Larson et al., 2014: 7).

As a result, middle power status is both a recognized identity and a social construct. At this point, a middle-power country may no longer be considered a middle power but instead a global power. Status identity is an integral part of national identity, as political elites and citizens believe their country has a rightful international status, along with the associated prestige, rights, respect, roles, responsibilities, and obligations. Therefore, the "Century of Türkiye" claim is a national identity declaration and outlines the envisioned path for the country. President Erdoğan has articulated that the Century of Türkiye represents "a comprehensive roadmap that will raise Türkiye above the level of contemporary civilizations" (Directorate of Communications, 2023).

To maintain and champion a national identity and realize the envisioned future, it is imperative for the government to consistently articulate the country's ethos, define its ambitions and aspirations, and communicate these both domestically and internationally through public diplomacy and strategic communications.

Changing Identities: Capability and Willingness

In international relations, "status" denotes the relative position of states within a hierarchical global community. This status represents a collective perception of a state's ranking, encompassing attributes such as wealth, coercive power, culture, population, socio-political organization, and diplomatic influence. It is essential to recognize that material capabilities are not the only factors that determine status; soft power, which includes a state's cultural influence, values, and norms, also plays a significant role. This soft power related to civilization is evident in the global influence of certain cultures, the spread of democracy, the acceptance of human rights principles, and the care for the vulnerable.

A state's recognized identity within the international community is not just a matter of subjective self-definition and material factors. It is a complex interplay of shared meanings and recognition from other states. Since a state can only achieve a certain status by recognizing others, it becomes essential to seek the legitimacy and authority that other states acknowledge in order to attain specific statuses, such as that of a great power. As a result, the pursuit of status is not a passive process but one that requires states to adopt specific roles and behaviors. For example, a state may seek recognition of its status by acting as a great power or a middle power within the international community. From this perspective, middle-power foreign policy and public diplomacy can be seen as both material and discursive activities aimed at attaining recognition for status identities. States actively attempt to change their status by deliberately modifying their behaviors and roles. In terms of discourse, practical support is crucial in moving beyond mere rhetoric.

The Social Identity Theory (Tajfel, 1982; Taijfel & Turner, 1986) supports the aforementioned statement. It states that social groups and their members strive to maintain and reinforce their distinct identities by comparing themselves with others based on specific attributes and characteristics. In this context, status is determined by comparisons between different groups rather than being a limited resource like wealth or power, and it represents a group's relative position on a specific dimension of comparison. The Social Identity Theory identifies three main approaches social groups use to maintain and strengthen a positive status identity: social mobility, social competition, and social creativity.

First, social mobility (Tajfel & Turner, 1986; Jackson et al., 1996; Wright, 2001) occurs when group boundaries are flexible, allowing members to move between groups through choice or effort. In this case, they aim for upward status mobility by imitating the values or behaviors of a superior group. For example, a country may seek to join a group of superior nations in the international community.

Second, social competition (Lenski, 1954; McNamara, 1997; Wright & Taylor, 1999) reverses relative positions by directly challenging and competing

with another group being compared. This typically occurs when movement between groups is highly restricted; however, if capabilities exist, it is feasible to outperform the other group. In international politics, this concept is applied in the context of great power competition in international relations, such as the competitive dynamic between countries like the United States and China. This concept can also be illustrated in Türkiye's efforts to establish itself as a global power.

Third, social creativity (Lenski, 1966; Bezouw, Toorn, and Becker, 2020) comes into play when a group is inferior to another group in a particular area. The inferior group can attempt to find a new dimension of comparison that favors it (e.g., focusing on soft power instead of hard power). Alternatively, the group can redefine the value assigned to an existing dimension of comparison (e.g., promoting the notion that "Smaller is stronger" or "Black is beautiful") or select new comparators that are favorable to them. Examples of social creativity include Canada's efforts to ban anti-personnel landmines and the Nordic countries' diplomatic efforts in niche areas such as human security and the environment (Kim, 2020).

Today's Türkiye aims to portray itself as a responsible and constructive regional force, particularly in the Balkans, the Middle East, and North Africa, while simultaneously positioning itself as a global power by becoming a central player on the world stage. Türkiye actively seeks to establish new cooperation with its neighbors and the international community, supported by the government's official declaration. However, in order to solidify this identity, recognition from both internal and external sources is crucial. The will of the people and its leaders plays a significant role in this process. Besides the categorization that defines a country's identity and status, willingness is essential in shaping its identity. The perceptions of other countries and the country's self-perception are crucial. Therefore, it is necessary to communicate this identity both internally and externally. Public diplomacy and strategic communication are in high demand.

This paper suggests that the diplomatic behavior of states on the international and domestic political levels can be explained by their capability and willingness (Schweller, 2006: 46-47; You, 2020: 99-153). The core causal mechanism of the capability-willingness model has two aspects. First, a state's ability is enhanced when it expands its material capabilities and attains diplomatic independence from the existing hegemon or neighboring great powers. Second, even with these capabilities, the role of mature domestic political cohesion is paramount. It is this cohesion that provides leaders with the "will" to strive for status as a global power consistently.

How has Türkiye Evolved? From a Middle Power to a Global Power

Türkiye has historically employed various approaches to status promotion since the establishment of the republic in 1923. Türkiye aspired to align with the West in the early years, emphasizing pro-Western, anti-communist ideals. Following the Cold War, Türkiye shifted its focus to its ties with Central Asia and the Balkans while also pursuing membership in the European Union (EU). By the 2010s, Türkiye, alongside countries like Indonesia, had underscored the harmony between Islam and democracy and the necessity of bridging the East and West. Furthermore, from 2002 to 2010, under the leadership of the Justice and Development Party (AK Parti), Türkiye assumed a conventional middle-power diplomatic role, engaging in conflict mediation, development assistance, and niche diplomacy. With its rapid economic growth since the early 2000s, it has actively leveraged the opportunity presented by the U.S. anti-terrorism focus and the resulting "Transatlantic Rift" to pursue middle power capability diplomacy (Kardaş, 2011: 32).

As Türkiye's attempts to join the EU were effectively blocked, Recep Tayyip Erdoğan shifted the country's focus towards emphasizing Islam and the historical and cultural elements of the Ottoman Empire as central to Turkish identity. This, paired with aspirations for regional power, has led to tensions with the West. This represents a shift from seeking status through assimilation to pursuing a competitive approach. In the 2010s, the discourse around Turkish identity centered on the concept of a "civilizational state" within the framework of "A New Türkiye," as emphasized by Erdoğan after his election in 2014. This vision combines the historical and cultural legacy of the Ottoman Empire with a modernized Türkiye, aiming to establish the country as a central player in the Islamic world.

Ahmet Davutoğlu, who served as Prime Minister from 2014 to 2016 and as Foreign Minister from 2009 to 2014, developed the concept of "Strategic Depth," which reinterprets Türkiye's international positioning and role based on its civilizational identity. According to this concept, Türkiye, the center state of the Ottoman-Islamic civilization, has significant historical, cultural, and religious links to the region's countries. Therefore, it should assume a leadership role in promoting unity and integration within the Islamic world. This concept marks a departure from the "Zero Problems with Neighbors" policy pursued in the 2000s. It signifies a shift towards a more assertive policy aimed at expanding Türkiye's pan-regional sphere of influence based on a civilizational-centered attitude.

In the 2010s, there was an increased emphasis on

Turkish Islam and Ottoman traditions, values, and norms, as opposed to Western engagement and the promotion of democracy. Rather than presenting a theological or ideological model like Saudi Arabia or Iran, Turkish Islam has focused on rejuvenating a uniquely Turkish "civilizational Islam," which combines Türkiye's economic and geopolitical power with its Muslim identity.

Following the 2011 elections, a noticeable shift towards domestic consolidation and a redefinition of identity occurred. Since 2013, there has been a move towards a more assertive foreign policy. Türkiye has adopted a competitive approach towards the West and its neighbors and has criticized the current international order. A clear desire is to enhance Türkiye's standing as a regional power by building solidarity rather than competition and excluding others.

As a result of this shift, Turkish diplomacy has refocused from the West to the East, particularly to the Middle East and North Africa. Its role has evolved from being a mediator and bridge-builder to that of a regional power and "center of gravity" seeking to expand its influence in the region. Türkiye's foreign policy is predicated on the non-exertion of hegemony over other states whilst concomitantly seeking to expand the reach of its own influence. In its dealings with weaker states, Türkiye prioritizes meeting the most pressing needs of the recipient state and endeavors to foster cooperation that will yield mutual benefits. The Türkiye-Somalia relationship exemplifies this approach. Following a significant famine in 2011, Türkiye provided considerable aid and assistance, including in the areas of security, social welfare, and economic development, and has since become one of Somalia's most important partners in Africa. In addition to its material support, Türkiye has cultivated a positive image in Somalia and among the Somali people (Balcı, 2024: 8-12).

Türkiye is firmly positioning itself as a formidable global force, ready to challenge the prevailing world order dominated by major powers. This determination is reflected in its two powerful mottos: "The world is bigger than five" (Aral, 2019: 71-95) and "The Century of Türkiye" (Fidan, 2023: 11-25). These mottos serve as a powerful vision, driving the steady implementation of practical policies to support this ambitious goal.

What is to be Done to Solidify Identity as a Global Power?

What steps should Türkiye take to establish and strengthen its identity as a global power and make "The Century of Türkiye" a reality? There are various ways to showcase a country's image to the world, and public diplomacy has been given significant importance in modern times. Several Turkish institutions play a crucial role in implementing Türkiye's public diplomacy. The Turkish Cooperation and Coordination Agency (TİKA), Yunus Emre Enstitüsü (YEE), Presidency for Turks Abroad and Related Communities (YTB) under the Ministry of Culture and Tourism, Presidency of Religious Affairs, Disaster and Emergency Management Presidency, Anadolu Agency (AA), the Republic of Türkiye Investment Office, Turkish Maarif Foundation, are at the core of Turkish public diplomacy. Other institutions include Türk Kızılay (The Turkish Red Crescent), the Ministry of Foreign Affairs, Turkish Radio and Television Corporation (TRT), and Turkish Airlines (THY). They engage in political, diplomatic, economic, and cultural activities to advance public diplomacy. In order to enhance the effectiveness of these efforts, these institutions must have a well-coordinated relationship among themselves (Kalın, 2011: 21). Currently, the Presidency of the Republic of Türkiye's Directorate of Communications (DoC) appears to be responsible for this coordination and drives national and international public relations efforts.

On the other hand, Türkiye is strategically advancing its policies through digital public diplomacy by harnessing the influence of social media to amplify crucial messages from President Erdoğan and government diplomats. The online discussions on platforms like Twitter reflect a purposeful redefinition of Türkiye's identity, values, and global influence. A recent study (Uysal & Schroeder, 2019) emphasizes the importance of prioritizing foreign policy and political values as essential soft power assets over cultural aspects, highlighting Türkiye's humanitarian aid and social responsibility efforts in the Islamic world. While Türkiye has excelled in public diplomacy through initiatives such as dramas, language, scholarships, and cuisine diplomacy, it is crucial to consider integrating sports into Turkish public diplomacy to achieve an even more significant impact.

The Instrumental Utility of Sports

It is undeniable that throughout history, sports have strived to remain neutral and apolitical. However, paradoxically, this apparent neutrality has led to the maximization of its instrumental utility. As a result, sport has been shaped and used by those in power for specific purposes (Houlihan, 2000: 215-217). Modern sport, in particular, has been structured to meet the needs of industrial societies and nation-states, serving internally as a means of political symbolism and externally as a tool that can be used for various diplomatic purposes. It is regarded as an effective tool for promoting social cohesion, shaping national identity, and enhancing a country's image abroad (Nygård & Gates, 2013: 238-241). Suppose one acknowledges the practical usefulness of sports and embraces the idea of soft power; viewing sports as an effective tool for promoting soft power and delivering public diplomacy is reasonable. From this

standpoint, it can be posited that sport has evolved into a potent instrument within the ambit of professional domains, such as diplomacy, and even more so within the purview of political science and international relations (Güzelipek, 2023: 38-39; Şehitoğlu, Tekin, and Güner, 2023: 404).

In the 1970s, sociologists widely employed two general theories to analyze the role of sport in society: functionalist theory and conflict theory. These theories offer different perspectives on the significance and impact of sports based on distinct assumptions about social order. According to functionalist theory, sports contribute to societal integration by promoting shared values and norms. Conversely, conflict theory argues that sports function as a tool to perpetuate dominant-dominated relationships. Both perspectives underscore the instrumental role of sports in meeting the needs of industrial societies and states (Coakley, 2020: 24-49).

Furthermore, sports, organized to meet the requirements of industrial societies and states, are seen as a powerful political tool serving multiple purposes. They can be leveraged internally to manipulate political symbols, used externally for diplomatic purposes, and exploited economically as a new arena for capital accumulation in industrial societies (Jung, 2010: 243; Nygård & Gates, 2013: 238-241). Sports are not only used as a political tool, but they also carry various diplomatic and symbolic significance (Hoberman, 1984: 20). While modern sports emphasize values such as sportsmanship, fair play, peace, and friendship, the symbols associated with sporting events often include national elements, including flags, anthems, torches, and award ceremonies (Houlihan, 2007: 215-217). These elements make sports a useful diplomatic tool.

Suppose we define diplomacy as a means to achieve national goals and interests. In that case, sports diplomacy can be viewed as a subset of diplomacy that utilizes sports to advance national interests. In other words, sports are used to achieve national interests, such as survival, prosperity, and national prestige. Sports diplomacy is often seen as a form of low-politics diplomacy, in contrast to the high-politics diplomacy associated with traditional diplomatic relations (Allison, 2005; Boniface, 1998; Caffrey, 2008; Murray, 2013; Tomlinson & Young, 2006). The authors argue that there are three key distinctions between low-politics sports diplomacy and high-politics diplomacy. First, sports diplomacy focuses on functional areas, such as organizing international sporting events, exchanging athletes, and hosting visits by key sports figures. Second, sports diplomacy engages with civil society, whereas high politics diplomacy mainly targets policymakers and bureaucrats. Third, sports diplomacy involves transnational and non-governmental actors, with international sports organizations, such as the International Olympic Committee

(IOC) and the Federation Internationale de Football Association (FIFA), playing a dominant role in decisions related to events, broadcasting rights and official sponsors.

The sport as low politics has been used by states in diplomatic relations in three main ways. One is in terms of "image expansion," in which states sell themselves through sporting activities to enhance their image; another is through (non)participation in certain events to express their opposition to international actions they (dis)agree with; and a third is using sporting events with other countries as a tool to establish national identity or improve relations with other countries (Jung, 2009: 242).

The "image-expansion" effect can be viewed as a dual phenomenon, one of success and the other of acceptance (Allison, 2005: 5-6). The former involves success in a particular sport, often equating outstanding performance with national superiority. The latter, acceptance, has a broader international significance. Many nations have utilized sports to signify their acceptance as part of the global community, particularly in divided countries such as the two Koreas and Germany before the Unification. In 1969, only 13 countries acknowledged East Germany. Even well-established nations use sports to reinforce their standing. It is widely believed that China's fervor for the mega sports events primarily stems from a desire to affirm and showcase its status as a mature member of the international system.

One of the most well-known examples of using sports to improve international relations is the "ping-pong diplomacy" between the USA and the People's Republic of China (PRC) in the early 1970s. This involved exchanging sports teams to enhance relations. The USA sent a table tennis team to the PRC one year, and in return, the PRC sent a basketball team to the USA the following year. The choice of sports was highly political, as the USA was not strong in table tennis, and the PRC was not a powerhouse in basketball at the time. Neither side was expected to win, creating a friendly atmosphere for the game. This ping-pong diplomacy ultimately led to President Nixon's visit to the PRC in 1972, marking a significant step in the improvement of the relationship between the two countries (Kropke, 1976: 317-326; Nafziger, 1971: 180-212).

Using Sports as a Tool for Public Diplomacy

In modern sports, competition is at the heart of the game. Winning and being the first are the ultimate goals, naturally involving competing against opponents. However, opponents are essential, as no game would exist without them. Therefore, modern sports can be seen as a form of "friendly competition" (Dunning, 2001: 94). This concept of friendly competition assumes the presence of others. Our understanding of ourselves is shaped in relation to

others, and it is most evident in competitive situations. In sports, the "sense of us" comes to the forefront through direct competition, where winners and losers are clearly defined. While international sporting events may not be as extreme as war, they can be seen as a form of competition that mirrors the dynamics of conflict (Jung, 2018: 67-87).

In today's globalized world, the relationship between international and domestic politics is becoming increasingly interconnected, blurring the lines between them. While the intertwining of international relations and domestic politics has always existed, it has become even deeper with the erosion of the ideological and systemic barriers that once hindered interdependence between states. This has led to a more significant role for public diplomacy aimed at civil society in other countries as a critical component of foreign policy. Through active public diplomacy, it is possible to transform competition with others into a more cooperative and mutually beneficial relationship. This is where the potential for sports to serve as an effective tool for public diplomacy emerges (Murray, 2016: 617-627; Jackson, 2013: 274-284). The potential for convergence between sport and public diplomacy stems from several sources; however, the authors will focus on three main ones.

Firstly, sports and politics have long been intertwined, from ancient times to the present day. It is unrealistic to expect them to be separated entirely. Instead, the goal should be to acknowledge and moderate their interconnectedness so that it does not become extreme in either direction.

Secondly, in today's globalized world, where war is less likely to be used as a means to resolve conflicts between nations, and economic values are considered paramount, sports can serve as a non-combative platform for nations to display their hierarchy and pride. This demonstrates the effectiveness of sports as a diplomatic tool in advancing national interests. For example, the eagerness of great powers, including China, Russia, France, and the UK, to host the Olympic Games again illustrates why sports and public diplomacy can converge.

Lastly, both sport and public diplomacy aim for long-term and gradual effects. While the outcomes of sports and public diplomacy may be immediate, their impact will likely be observed gradually over time. A single victory in an international game or a singular act of support for another country does not immediately improve a country's image. However, repeated victories and consistent support will undoubtedly have a positive impact on a country's policy performance.

Avoiding the Pitfalls of One-sided Sending: Attraction and Acceptance

Power always depends on the context of the relationship (Baldwin, 1979: 161-194). Soft power is based on how others perceive a country's image, ideology, and policies and is closely related to identity issues. The communication and relationships between a country and others influence it. Soft power is exerted when a country's self-identity aligns with the identity of others. However, identity politics tends to be egocentric, as people often project their own constructed reality as the truth, assuming that what is attractive to them will also be attractive to others. When states ignore this relational nature, they may fall into the trap of unilateral projection. An example of this can be seen in the 1936 Berlin Olympics, as described in Richard Mandell's[3] book "The Nazi Olympics." Similarly, the 2008 Beijing Olympics also reflected this concept, as discussed by Caffrey[4] and Lovell[5].

The elaborate display of nationalism at major sporting events, such as the Olympics, T serves as a stark reminder of the potential pitfalls of one-sided projection by countries. This risk is further accentuated when coupled with an instrumental and strategic approach to soft power. Some define power as the possession of resources that can influence performance. When a group or individual possesses a stable supply of resources, they are deemed to hold power. While this definition may make power appear tangible and quantifiable, it necessitates revision due to its conflation of the results of power dynamics with the means to an end. This can be called the "fallacy of means" or "fallacy of concreteness". People often equate power with resources but face the paradox that those possessing power-yielding resources only occasionally achieve their intended objectives.

In this vein, the key to addressing the issue of spreading soft power is understanding when the projection or expression of one's charm is perceived as attractive by the other party and when it is seen as unattractive. Establishing the rules of interaction between projecting and receiving attraction is a complex task that requires subtle coordination. It is crucial to expect the recipient to avoid embracing an appeal based on a one-sided projection. Türkiye's pursuit of global power should consider this, stressing the need for a balanced approach. It is imperative to recognize that there are no guarantees that others will accept unilateral projections of identity. Therefore, Türkiye's efforts to establish a global power identity must proceed carefully in its relations with others.

[3]Mandell, Richard. The Nazi Olympics. Macmillan, 1971.

[4]Caffrey, Kevin. "Olympian Politics in Beijing: Games but not Just Games." The International Journal of the History of Sport, vol. 25, no. 7, 2008, ss. 807-825.

[5]Lovell, Julia. "Prologue: Beijing 2008 - The Mixed Messages of Contemporary Chinese Nationalism." The International Journal of the History of Sport, vol. 25, no. 7, 2008, ss. 758-778.

Conclusion

Human beings now live in a time of rapidly evolving geopolitical dynamics, increasing global challenges, and the return of great power competition. While traditional great powers have yet to adequately address the problems, some countries not traditionally considered great powers are seeking to establish their position in the global arena. They aim to be pivotal actors contributing to a fair and inclusive international system, capable of addressing growing global challenges through supranational cooperation and building solidarity rather than fostering polarity. Türkiye is at the forefront of this movement with its declaration of the Century of Türkiye.

This article discusses Türkiye's efforts to transition from a middle-power country to a global power. It emphasizes the importance of strengthening Türkiye's identity and the significance of public diplomacy. Additionally, it explores the potential of using sports to enhance public diplomacy, which Türkiye can capitalize on. Türkiye was the first country in the world to establish a National Sports Day. May 19 initially marked the date of Atatürk's landing at Samsun, which marked the beginning of the War of Independence. It was declared a national holiday in 1935 as "Atatürk Day" and was later renamed "Youth and Sports Day" in 1938. Finally, in 1981, it was renamed the "Commemoration of Atatürk, Youth and Sports Day." Despite Türkiye's rich history and the popularity of sports, there is still room for growth in utilizing sports as a diplomatic tool.

Türkiye's experience with Armenia in 2008 and 2009 exemplifies successful sports diplomacy (Polo, 2015: 5-11). During the 2010 World Cup qualifiers in South Africa, Türkiye and Armenia were drawn into the same group, leading to home and away exchanges. With the Turkish government aiming to improve relations with its neighbors, the soccer match provided a platform for dialogue and exchange with Armenia, ultimately leading to official visits between the presidents of the two countries. The article emphasizes the need for a more proactive approach. While sporting events and hosting international competitions contribute positively to Türkiye's image, the extent to which a country can develop its soft power through sports is limited. A balanced and relative message is essential, as a one-sided approach can have a negative impact.

Türkiye's rich values, historical significance, and cultural depth have significantly impacted regional dynamics, creating new spheres of influence. Turkish foreign policy's primary objective is to establish the Türkiye Axis based on the principles of justice, stability, inclusiveness, multilateralism, and the rule of international law (Ataman, 2023: 91). Türkiye's remarkable dynamism and emergence as a leading force regionally and globally must be effectively communicated with precision and credibility to domestic and international audiences (Kalın, 2011: 17) through strategic communication.

Two suggestions are being proposed as conclusions. The first suggestion is to organize national sports competitions, which could be named "The Turkish Sports Festival," annually for internal communication and national unity. It could coincide with May 19. The second suggestion is to continue pursuing the goal of hosting the Olympics through outreach and strategic communication despite previous unsuccessful bids. By expanding sports diplomacy, Türkiye can strengthen internal and external communication and move closer to achieving its goals.

In 2023, on Sunday, October 29, Türkiye celebrated its 100th anniversary with great pride. "The Century of Türkiye" is more than a motto. As Türkiye reaches 100 years, it faces the challenge of realizing its domestic and foreign ambitions. Establishing identity as a global power requires mobilizing public diplomacy, which sports can help support. It is vital to acknowledge the prevailing spirit of the age (zeitgeist), which is characterized by the principles of public diplomacy and strategic communication. In this context, sport emerges as a pivotal and fruitful domain. Indeed, states that employ this diplomatic practice, which is of paramount importance in winning the hearts and minds of foreign societies, will reap considerable benefits.

Acknowledgement:

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Research Article

Bibliometric Analysis of Sustainable Green Maritime Research with Visual Mapping Technique

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Abstract

In coastal countries, the maritime industry has a structure that complements and strengthens the sectors it is connected to, and its ties to tourism are growing stronger every day. In today's world, where the value of green maritime practices is increasing, the collaborations of maritime transportation and tourism with related fields, their sustainability, and environmental sensitivity will contribute to the long-term development of these two industries. The aim of this study is to examine the research on green maritime studies using visual mapping technique and bibliometric analysis. In this context, Web of Science (WOS) Core Collection database was used to analyze scientific publications in the field of green maritime and searches were made with the keyword "Green Maritime". Based on the search results, the most influential articles, countries, authors and titles were identified, and citation, word mining and bibliometric matching analyses were performed using VOSviewer software. The research findings reveal the distribution of studies in the field of green maritime studies by year, publication categories, authors with the most publications and the most cited articles. According to the results of the analysis, "China, Denmark and Norway" stand out among the countries that publish the most in this field. Among the universities with the highest number of publications are "Technical University of Denmark", "Dalian Maritime University" and "Shanghai Maritime University". In the study, a word map and co-authorship map of green maritime literature were also created. While keywords such as "green maritime logistics", "maritime transport" and "speed optimization" stand out in the word map, the co-authorship map shows the prevalence of international collaborations. This study provides theoretical contributions to related fields and offers data to support strategies for advancing sustainable maritime practices.

Keywords: Maritime Tourism, Maritime, Green Maritime, Maritime Transport, Sustainable Maritime, Sustainability.

JEL Codes: L83, L91, Q56

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Introduction

Maritime transportation in international trade is of great importance as the lifeblood of the global economy. Around 90% of global trade is conducted via maritime transportation (Wang et al., 2023). In this context, the role of ships stands out as a critical element in ensuring the flow of trade goods and supporting economic growth (Caliskan & Ozturkoglu, 2018). Advanced technologies, trained personnel and effective maritime management are required for ships to carry out their activities safely. However, the environmental impacts of the maritime industry have posed significant sustainability challenges. Due to the negative impacts of maritime transportation on greenhouse gas emissions, ocean pollution and biodiversity (Song et al., 2023), sustainable maritime practices and green shipping concepts are becoming increasingly important (Shin et al., 2018). Green maritime refers to the adoption of environmentally friendly practices in various areas such as shipbuilding, fuel utilization, operational processes and waste management. In this context, green shipping aims to reduce the carbon footprint of ships, prevent marine pollution and increase environmental sustainability in general. For example, the use of low-sulfur fuels, energy-efficient ship designs and proper waste management are among the key elements of green maritime. Sustainability in the maritime industry is also supported by international regulations and policies. Emission reduction targets set by the International Maritime Organization (IMO) and other environmental regulations are among the important steps to promote green maritime (IMO, 2023). These policies require all stakeholders in the sector to adopt sustainable practices and fulfill their environmental responsibilities (Mjelde et al., 2019). The importance of maritime transportation in international trade and the value of green maritime practices in terms of sustainability make it possible to link it with the tourism industry. Especially, incorporating maritime tourism vehicles into international policies and regulations alongside the maritime industry strengthens the bond between the two by adopting green practices in both the maritime and tourism sectors. Ensuring that tourists, an important part of tourism, reach their destinations safely and in an environmentally friendly manner, instilling environmental awareness, prioritizing environmentally sustainable practices, protecting destinations, transportation routes, and biodiversity, and reducing the negative impacts of maritime transportation will contribute positively to both industries. Indeed, Badollahi et al. (2022) define sustainability as a shared responsibility and recommend adopting green practices and increasing environmental awareness in the development of maritime tourism.

The purpose of this study is to reveal the importance of the concept of green maritime in international trade and its contributions to sustainable maritime transportation and to conduct a bibliometric analysis based on the studies conducted in this field and to examine the existing literature. In particular, to review the number and scope of scientific studies assessing the effectiveness and prevalence of green maritime practices and to identify new insights and perspectives that these studies provide to the literature. In the literature, it is seen that various studies have been conducted on green maritime. In their study, Tadros et al. (2023) addressed the main factors that directly affect the operational efficiency, fuel consumption and emission release of ships within the framework of green maritime. In this context, they analyzed the studies between 2010 and 2022 through the Scopus database. Davarzani et al. (2016) conducted a bibliometric analysis using Scopus database for studies on maritime, port, logistics, green, sustainable and green operations, etc. within the scope of green maritime and green ports between 1975-2014. Ampah et al. (2021) bibliometrically analyzed the studies on clean alternative marine fuels within the scope of green maritime between 2000-2020 using Scopus and Web of Science (WOS) databases. It is seen that bibliometric analysis studies on green maritime generally focus on studies on issues that will indirectly affect green maritime. In this study, the studies directly accessed through the green maritime keyword were examined bibliometrically. This study identifies the current state of research in the field of green maritime research and future research directions and makes important contributions to the literature. The findings provide data that will help to develop strategies to increase sustainability in the maritime and tourism industry and green maritime policies.

Sustainability and Green Maritime

Sustainability is the concept of meeting our current needs while leaving a world in which future generations can meet their own needs. It aims to improve the lives of today's people and future generations, to ensure that they live in prosperity and peace, and to create a livable environment (Kara, 2023). From this perspective, sustainability covers issues such as the efficient and fair use of resources, prevention of pollution, control of carbon emissions and combating climate change in order to leave a livable world for future generations (Tezcan, 2023). The concept of sustainability was first introduced in the 1987 Brundtland Report, which highlighted the critical balance between humanity's pursuit of a better quality of life and the limitations imposed by nature. Over time, this concept has evolved to encompass three key dimensions: social, economic, and environmental (Kuhlman & Farrington, 2010). While the environmental dimension requires reducing environmental impacts, the economic dimension is concerned with minimizing or sustaining costs. The social dimension

aims to improve the welfare of society, including by protecting human rights and improving labor regulations. It can be said that the main goal of sustainability is to reduce economic costs, minimize environmental impacts and improve social justice. In recent years, the maritime industry has been emphasizing sustainability (Shin et al., 2018). The maritime sector includes areas such as shipping, shipbuilding, port operations and maritime services and serves as a source of income for coastal destinations. In particular, shipping is an important component that enables the transportation of goods and products using vehicles such as ships and boats (Le et al., 2024). Similarly, maritime transportation, an important and complex component of passenger transport, has continued to be valued from past to present in both the tourism and hospitality sectors and the context of sustainable maritime sector (Hoarau-Heemstra et al., 2023; Paiano et al., 2020; Ruiz-Guerra et al., 2019; Véronneau & Roy, 2009). Therefore, sustainable operations in maritime transportation, which require multidisciplinary reviews, have become an important issue for companies in the maritime supply chain. In recent years, greenhouse gas emissions from maritime transportation have been a global concern. In this context, reducing fuel consumption and carbon footprint stands out as a strategic goal for maritime companies and the service sectors collaborating in this field (Onyango, 2025; Paiano et al., 2020; Ruiz-Guerra et al., 2019; Simonsen et al., 2019).

Recreational activities conducted within the scope of maritime tourism (such as sea excursions, diving, etc.) are associated with risks such as moorings, antifouling (toxic paint), marine litter, invasive species, discharges (gray water, fuel, and oils), marine waste, manipulation, overfishing, etc., and directly and indirectly affect marine ecosystems (Caparrós-Martínez et al., 2022). Similarly, cruise ships, which are a significant component of maritime tourism, have become a popular means of vacation, travel, and recreational maritime transportation. Cruise shipping is described as a continuously growing maritime activity (Pallis & Vaggelas, 2019). However, the environmental impacts such as water, oil, and noise pollution resulting from the power systems of cruise ships are considered significant problems. To address these issues, it is proposed to develop environmentally friendly and sustainable ship technologies by utilizing solar energy, an inexhaustible and easily accessible renewable energy source (Shi & Luo, 2018). According to Pallis & Vaggelas (2019), it is emphasized that the "green" policies prioritized in the maritime industry are also inevitable for cruise ships. Despite continuing to grow as an economic activity, cruise ports, cruise lines, all relevant stakeholders, and destinations are associated with a number of environmental issues (e.g., footprints). Therefore, when examined from the perspective of both industries reducing environmental impact and increasing

fuel efficiency will contribute directly to maritime environmental sustainability and economic prosperity and indirectly to social sustainability (Mansouri et al., 2015). The main goal of sustainability in ports is to maximize profits while ensuring socially acceptable, safe, energy efficient and environmentally friendly management (Lim et al., 2019). There are also some barriers to sustainability in international shipping. Some of these include the difficulty of cooperation and partnerships due to the multi-regional nature of activities, different modes of transportation and logistics, making information sharing difficult. Lack of understanding of sustainability, green and sustainable terms, sustainability efforts are reactive and do not receive sufficient support from government, public and international platforms, and freight transportation data is limited or outdated (Wu et al., 2020). Carbon dioxide (CO_2) and other air contaminants trap sunlight and radiation in the atmosphere, causing heat to be trapped, which leads to an increase in the Earth's temperature. This situation, which emerges as a result of climate change, is defined as global warming. From this point of view, the concept of green maritime or sustainable maritime is an approach that envisages the use of ships that carry out the transportation of goods and passengers in the maritime and tourism industries with the lowest energy use and improve environmental conditions (Hoarau-Heemstra et al., 2023; Paiano et al., 2020; Ruiz-Guerra et al., 2019; Simonsen et al., 2019; Tadros et al., 2023). In other words, green shipping aims to prevent exhaust emissions from ships for the global ecosystem, as it means efficient maritime transportation with minimal damage to health and ecology (Shi et al., 2018; Wan et al., 2016). According to the Kyoto Protocol, the greenhouse gases that cause exhaust emissions and need to be controlled urgently are CO2 and other air contaminants. CO2 is responsible for the largest percentage of global warming due to its prevalence (Wang et al., 2023). This shows that CO2 and other air pollutants released by ships into the atmosphere increase global warming and lead to climate change. Therefore, the concept of green maritime or sustainable maritime aims to reduce the environmental impact of ships by minimizing their energy use and prevent their negative impact on the global ecosystem.

Methodology

In this study, articles and papers on sustainable green maritime research were bibliometrically analyzed using the WOS Core Collection database. Word mining and visual mapping were then performed using VOSviewer 1.6.20 software. In this framework, 31 articles and five papers using the keyword "Green Maritime" from the WOS database and published between 2010 and May 2024 were bibliometrically examined with the VOSviewer program.

The WOS database is one of the most widely accepted and frequently used databases in the scientific literature for the easiest compilation of the data required for bibliometric analysis (Bozdemir & Çivi 2019; Yang et al., 2013). The concept of bibliometrics is defined as the examination of studies in different fields by combining mathematical and statistical methods. The term was first used by E. Wyndam Hulme at Cambridge University in 1922. Bibliometrics, derived from the words "biblio" and "metrics", comes from the Greek and Latin words "bybl(os)" meaning book and "metricus" or "metrikos" meaning measurement (Yorulmaz et al., 2022).

Scientific mapping methods and bibliometric analyses help to understand the development of the topic, providing a systematic guidance to researchers working in the related field. Such methods, quantify relevant countries, research areas, journals, publishing houses, organizations, universities, editors, authors, and keywords (Zhang et al., 2009). It also examines networks of attribution and association. These methods can be used to create node/link maps to visually observe research distribution, the direction of research development, and hotspots (Seyhan & Öztürk, 2021).

Findings

Distribution of publications on green maritime by years

The distribution of 36 publications accessed according to the search records using the keyword "Green Maritime" in the WOS database in May 2024 is shown in Figure 1.
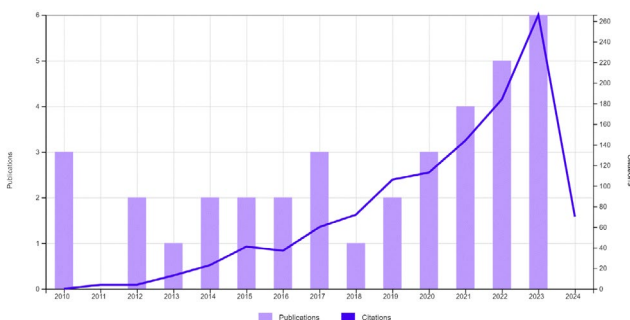

Figure 1. Distribution of Publications by Years

Looking at Figure 1, the highest number of six studies was published in 2023. It is seen that five studies were published in 2022, four in 2021, three in 2010, 2017 and 2020, two in 2012, 2014, 2015, 2016 and 2019, one in 2013 and 2018, and no study was published in 2011 and the first five months of 2024.

Distribution by publication category

The WOS database also allows publications to be analyzed according to their categories. Figure 2 shows the top 10 publications in the WOS database according to publication categories.

Figure 2. Distribution of Publications by Category

The categorization of all publications in the WOS database is shown in Table 1.

Table 1. Distribution of Publications by Category

WOS Category	Number of Publications	% Distribution
Transportation Science Technology	13	36.111
Green Sustainable Science Technology	9	25.000
Environmental Sciences	8	22.222
Environmental Studies	8	22.222
Transportation	8	22.222
Energy Fuels	4	11.111
Engineering Environmental	4	11.111
Engineering Electrical Electronic	3	8.333
Management	3	8.333
Engineering Civil	2	5.556
Engineering Marine	2	5.556
Oceanography	2	5.556
Operations Research Management Science	2	5.556
Telecommunications	2	5.556

Business	1	2.778
Chemistry Multidisciplinary	1	2.778
Construction Building Technology	1	2.778
Economics	1	2.778
Engineering Multidisciplinary	1	2.778
Engineering Ocean	1	2.778
Forestry	1	2.778
Geography	1	2.778
Marine Freshwater Biology	1	2.778
Materials Science Multidisciplinary	1	2.778
Materials Science Paper Wood	1	2.778
Water Resources	1	2.778

Sustainability	2	5.556
Transportation Research Part C Emerging Technologies	2	5.556
Advanced Materials Research	1	2.778
Benchmarking An International Journal	1	2.778
Energy Research Social Science	1	2.778
Engineering Technology Applied Science Research	1	2.778
Environment Development and Sustainability	1	2.778

When Table 2 is examined, it is seen that the journal "Transportation Research Part D Transport and Environment" ranks first with five publications among the 9 journals with the highest number of publications. The others are "Journal of Cleaner Production" with three publications, "Sustainability" and "Transportation Research Part C Emerging Technologies" with two publications, "Advanced Materials Research" with one publication, "Benchmarking An International Journal", "Energy Research Social Science", "Engineering Technology Applied Science Research" and "Environment Development and Sustainability".

When Figure 2 and Table 1 are examined, the highest number of publications were made in the fields of transportation science technology with 13 publications, green sustainable science technology with nine publications, environmental sciences, environmental studies and public transportation with eight publications, energy fuels, engineering environment with four publications, engineering electrical electronics and management with three publications, and engineering construction with two publications.

Journals with the most publications

The journals with the highest number of publications according to WOS database data are shown in Table 2.

Table 2. The Journals in Which the Publications Are Most Frequently Published

Journal Name	Number of Publications	% Distribution
Transportation Research Part D Transport and Environment	5	13.889
Journal of Cleaner Production	3	8.333

Authors with the most publications and most cited publications

The five most cited authors are shown in Table 3.

Table 3. Top Five Authors and Number of Publications

Author	Number of publications
Kontovas, Christos A.	3
Psaraftis, Harilaos N.	3
Laporte, Gilbert	2
Gribkovskaia, Irina	2
Ma, Dongfang	2

When Table 3 is analyzed, the authors with the most publications are "Kontovas, Christos A." and "Psaraftis, Harilaos N." with three publications. The authors of the two publications are "Laporte, Gilbert", "Gribkovskaia, Irina" and "Ma, Dongfang".

Table 4 contains the citation counts of the most cited publications.

Table 4. The Most Cited Publications

Number	Author	Year	Annual Average Citation	Total Citation
1	Psaraftis & Kontovas	2014	81.64	1143
2	Psaraftis & Kontovas	2010	12.47	187
3	Venturini et al.	2017	15.88	127
4	Fang et al.	2019	24.8	124
5	Kontovas	2014	6.55	72
6	Schinas & Stefanakos	2012	5.23	68
7	Yu et al.	2021	11	44
8	Norlund et al.	2015	3.2	32
9	Stevens et al.	2015	3.1	31
10	Ma et al.	2021	7	28

According to the data in Table 4, "Ship speed optimization: concepts, models and combined speed-routing scenarios" with 1143 total citations. Others; "Balancing the economic and environmental performance of maritime transportation" with 187 citations, "The multi-port berth allocation problem with speed optimization and emission considerations" with 127 citations, "Toward future green maritime transportation: an overview of seaport microgrids and all-electric ships" with 124 citations, "The green ship routing and scheduling problem (GSRSP): a conceptual approach" with 72 citations, "Cost assessment of environmental regulation and options for marine operators" with 68 citations, "Literature review on emission control-based ship voyage optimization" with 44 citations, "Supply vessel planning under cost, environment and robustness considerations" with 32 citations and "Is new emission legislation stimulating the implementation of sustainable and energy-efficient maritime technologies?" publications with 31 citations.

Top 10 most cited articles according to WOS results

When the most cited studies are examined by year, significant insights into the evolving impact and popularity of research over time can be observed. For example, Psaraftis & Kontovas (2010) examined the effects of various maritime emission reduction policies on maritime logistics and the important trade-offs that these policies bring. Basically, they addressed the relationships between the environmental benefits of these measures and the economic aspects of the logistics chain. They stated that the three main ways to reduce maritime GHG emissions are technical measures (alternative fuels, energy-efficient engines, more efficient ship hulls etc.) market-based instruments (emissions trading and carbon tax) and operational options (speed optimization, optimised routing, fleet planning, etc.). The study specifically investigated the potential impacts of speed reductions and changes in fleet size on logistics characteristics such as transit inventory costs. They also addressed the risk that measures that increase shipping costs could shift traffic to more environmentally harmful land transportation. They emphasized that some measures implemented to achieve environmental objectives may have serious side effects on the economics of the logistics supply chain and that these effects should be carefully evaluated. In this context, they concluded that there is a need to balance maritime logistics impacts with environmental policies. Building on the theme of balancing economic and environmental considerations, Schinas & Stefanakos (2012), presented a model based on stochastic linear programming for the assessment of high operating costs incurred in sulfur emission control areas of ships. This model determines the fleet mix and the capacity offered, aiming to minimize the total cost to operators. In study, they examined the costs and efficiency impacts of different ship types under various scenarios. They emphasized the cost-increasing effects of low sulfur fuel consumption in the sulfur emission control zone. They aimed to reveal how the current regulations will change ship operating costs and how these costs will affect the distribution of the fleet. Psaraftis & Kontovas (2014) aimed to develop various speed optimization models by addressing critical issues related to ship speed optimization. They focused on models that include basic parameters such as fuel price, market situation, inventory cost of cargo and the dependence of fuel consumption on carrying capacity, which affect the speed decision of the ship owner or charterer. They conclude that solutions for optimal environmental performance do not always coincide with solutions for optimal economic performance, and that policies that appear at first glance to be environmentally appropriate may in fact be inappropriate. Considering that a private operator will choose the optimal economic performance, policy makers have suggested that measures such as fuel taxes, etc. should be introduced and incentivized by policy makers to achieve more environmentally and socially favorable outcomes. They

emphasized that in this case, more favorable results can be obtained for the benefit of the environment and society in terms of CO2 production. In contrast, the study conducted by Kontovas (2014) highlighted how the scope of ship routing and reporting issues can be addressed, emphasizing the importance of speed variation in reducing emissions. The research explored various methods for estimating fuel consumption and emissions, ultimately concluding that increasing ship speed could lead to improved performance.

Norlund et al. (2015) examined the planning of supply ships delivering cargo on oil and gas platforms. They developed a simulation-optimization methodology that takes into account costs, environmental impacts and operational robustness. They concluded that speed optimization can reduce fuel consumption and hence emissions, but these strategies will affect the robustness of weekly ship schedules due to increased weather uncertainty during the winter season. Similarly, Stevens et al. (2015), They investigated whether new emission laws encourage the implementation of sustainable and energy efficient marine technologies. They have developed a framework that links emission laws in different countries and the technical energy efficient solutions that can be used to comply with these laws. It was emphasized that the Energy Efficient Design Index (EEDI), instead of encouraging the use of new ship engine technologies or alternative fuels, directs shipping companies to order ships that reduce design speed, and the Ship Enegy Efficient Management Plan (SEEMP) encourages companies to switch to bi-fuel engine systems instead of switching completely to alternative energy systems. The paper analyzes the feasibility of these policies and quantitatively assesses their impact for existing ships and newbuildings.

These studies highlight the importance of achieving a balance between economic performance and environmental benefits by focusing on ship speed optimization and emission reduction. Similarly, Venturini et al. (2017) addressed the issue of assigning berth times and positions to ships at container terminals and developed a novel model that incorporates ship speed optimization and environmental impacts.With this model, they aimed to reduce fuel consumption, total operation time and emissions by optimizing the cruising speed of ships between ports. They concluded that by applying the model, fuel consumption and air emissions can be reduced by about 40%. They emphasized that this requires strong cooperation between shipping lines and terminal operators.

Fang et al. (2019) investigated how port microgrids

and fully electric ships can drive green energy transformation in maritime operations. They emphasized the significant advantages these technologies offer, such as superior control features, enhanced energy efficiency, and greater flexibility in both electricity management and logistics. Their work highlights the potential of these innovations to revolutionize sustainability practices at sea. Extending the focus on green maritime solutions, Yu et al. (2021), focused on fuel consumption reduction and emission control based on ship voyage optimization. In the study, they aimed to make ship operations more efficient in line with the development of green maritime transportation by examining the factors affecting fuel consumption. They emphasized the importance of travel optimization based on emission control and highlighted the theoretical foundations of hydrodynamic factors affecting fuel consumption and optimization models. Building upon these themes, Ma et al. (2021) aimed to develop a model that includes multi-objective optimization of ship route and speed. With the model, they aimed to minimize both transportation costs and emissions, taking into account emission control area regulations. This optimization model is an attempt to balance transportation costs with the reduction of CO2 and SOx emissions while selecting the ship route and speed. As an example, they studied a route from Halifax in Canada to Georgia in the United States of America (USA). In the study, they concluded that both the total costs and emissions of the ship decreased and the total costs did not increase despite the increases in fuel prices.

Top publishing countries and universities by articles published on green maritime

Table 5. Top Five Countries with the Most Publications

Country	Number of publications
China	13
Denmark	5
Norway	5
Canada	3
Singapore	3

When Table 5 is analyzed, the country with the highest number of publications is China with 13 publications. "Denmark" and "Norway" with five publications and "Canada" and "Singapore" with three publications are the other countries with the highest number of article publications.

Table 6. Universities with the most publications

University	Number of publications
Technical University of Denmark	4
Dalian Maritime University	3
Shanghai Maritime University	3
Zhejiang University	3
Wuhan University of Technology	2
Hec Montreal	2
Molde University College	2
Nanyang Technological University	2
Universite De Montreal	2

When Table 6 is analyzed, "Technical University of Denmark" is the university that published the most articles with four publications. "Dalian Maritime University", "Shanghai Maritime University" and "Zhejiang University" with three publications and "Wuhan University of Technology", "Hec Montreal", "Molde University College", "Nanyang Technological University" and "University De Montreal" with two publications are the other universities with the most article publications.

Word map of Green Maritime literature

VOSviewer shows nodes, links and clusters in two-dimensional graphs. The nodes appear as labeled circles and their size indicates how often these elements occur. The distance between nodes indicates the closeness of their relationship. Closer distances indicate that the elements are more relevant. Nodes are clustered by color and show the relationships between links by line thickness. A thicker line indicates a stronger relationship, while a thinner line indicates a weaker relationship (Petrović & Thomas, 2024).

Keyword clusters for peer word analysis

Keyword clusters in the synonym analysis reveal the frequency with which keywords are used together. This review provides researchers with an insight into the conceptual framework of previous studies and helps them understand the scope and focus of research in the field.
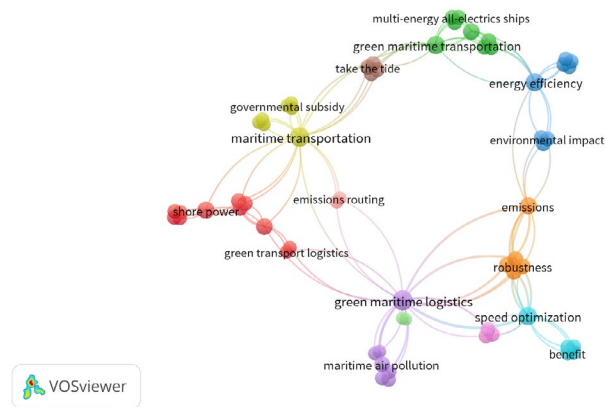

Figure 3. Green Maritime Keyword Clusters Co-Word map

When Figure 3 is examined, it is shown with a map of 132 keywords that occur at least "1" time in the studies published on Green Maritime and are related to each other. "Green maritime logistics", which was used "9" times, was the most used keyword. The others are listed in descending order according to the number of times they are used: "maritime transport" "speed optimization" "emissions" "green maritime transport" "energy efficiency" "marine air pollution" "vessel routing and scheduling" "supply vessel operation" "weather uncertainty". In terms of connectivity, "green maritime logistics" is again in the first place with 32 connectivity, followed by "maritime transport" and "speed optimization" with 19 connectivity. This is followed by "emissions" with 15 link strengths and "green maritime transport" with 14 link strengths.

Word cloud of abstracts of green maritime studies

The word cloud provides researchers with an overview of the abstract structure of previous studies on a topic and helps them to identify topics to focus on. In this study, the abstracts of 36 published studies on green maritime using the WOS database were analyzed with the Maxqda 2024 program. A word cloud was created using words that appeared at least three times in the abstracts and is shown in Figure 4.

Figure 4. Summary Word Cloud of Green Maritime studies

Among the words shown in Figure 4 and frequently used in the summaries; "maritime" was used 95 times, "ship" 46 times, "green" 42 times, "transport" 36 times, "port" 18 times, "environmental", "industry", "transport" and "transportation" 15 times, "energy" and "sustainable" 14 times and "supply" 13 times.

Map of co-authorship

Co-authorship is defined by how often two documents are cited together in new articles. By citing two previous articles together, the author of a new article creates a co-citation link between these two old articles. In basic terms, co-authorship is considered a measurable link between two papers (Griffith et al., 1974).

Co-authorship map of countries

The co-authorship relationships of the joint publications made by different countries on the subject are shown in Figure 5 and the total link strength of the publications made by countries is shown in Table 7.

Figure 4. Summary Word Cloud of Green Maritime Studies

Links in the map show other clusters related to a cluster. The number of co-authorships that researchers from one country have with researchers from another country is called total linkage strength (Yorulmaz & Derici, 2024; Van Eck & Waltman, 2017).

According to the country co-authorship map shown in Figure 5;

Table 7. Total Connection Strength of Countries' Broadcasts

Country	Number of publications	Co-authorship total link strength
China	13	6
Canada	3	4
England	2	3
Ghana	1	2
Netherlands	2	2
Singapore	3	2
Denmark	5	1
Germany	2	1
Greece	2	1
Malaysia	1	1
Norway	5	1
Pakistan	1	1
Philippines	1	1
Poland	1	1
Portugal	1	1
Vietnam	1	1
Indonesia	1	1

When Table 7 is analyzed, according to the co-authorship map of the countries, China ranked first with a total link strength of "6" and 13 publications. Canada ranked second with "4" total connection strength and "3" broadcasts, while the UK ranked third with "3" total connection strength and "2" broadcasts. The next ones are Ghana with "2" total connection strength and "1" broadcast, Netherlands with "2" total connection strength and "2" broadcast, Singapore with "2" total connection strength and "3" broadcast.

Co-citation matching of authors

It is the examination of other authors cited by the same author. It shows the frequency with which two authors' works are cited together and thus measures the level of citation linkage between authors. Table 8 shows the top 10 authors according to the number of citations on green maritime, taking into account the total link strength. All authors are also shown in Figure 6.

Table 8. Authors' Number of Citations and Total Link Strength

Country	Number of publications	Co-authorship total link strength
China	13	6
Canada	3	4
England	2	3
Ghana	1	2
Netherlands	2	2
Singapore	3	2
Denmark	5	1

Germany	2	1
Greece	2	1
Malaysia	1	1
Norway	5	1
Pakistan	1	1
Philippines	1	1
Poland	1	1
Portugal	1	1
Vietnam	1	1
Indonesia	1	1

England	2	3
Ghana	1	2
Netherlands	2	2
Singapore	3	2
Denmark	5	1

The co-citation map of journals is shown in Figure 7.

Figure 7. Co-Citation Map of Journals

When Table 8 is analyzed, "Psaraftis" ranked first with 481 total connection power in the ranking based on total connection power. The others are "Fagerholt" and "Kanellos" with 367 total connection strength, "International Maritime Organization (IMO)" and "Zhen" with 331 total connection strength, "Lindstad" with 298 total connection strength, "Hoang" with 285 total connection strength, "Wang" with 279 total connection strength, "Fernando" and "Zhu" with 276 total connection strength.
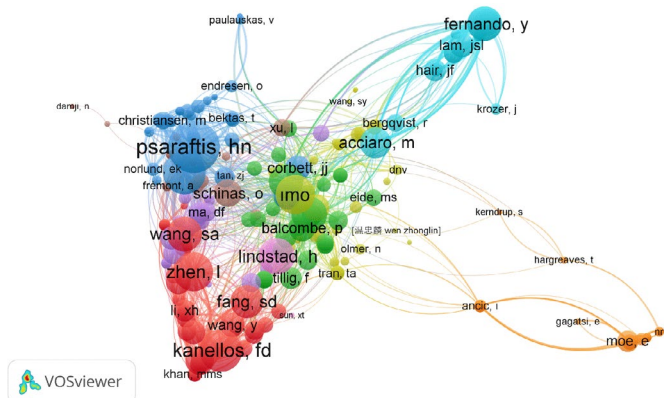

Figure 6. Co-Citation Map of Authors

The co-citation map in Figure 6 was created by considering authors with at least "2" citations and 236 authors met this condition.

Co-citation matching of journals

It shows the number of times two journal publications are cited together. Journals and the number of citations are shown in Table 9.
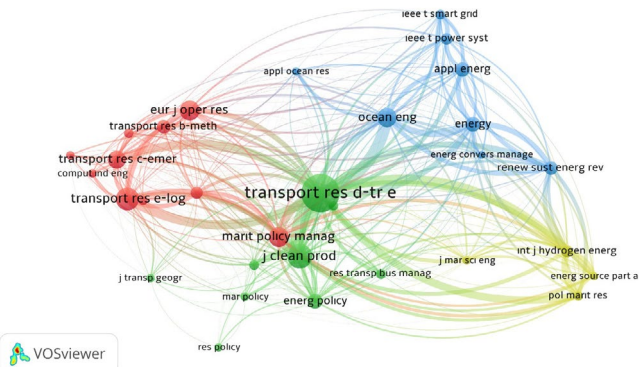
Table 9. Citation Numbers of Journals

Country	Number of publications	Co-authorship total link strength
China	13	6
Canada	3	4

When Table 9 and Figure 7 are examined, the most cited journal with 109 citations is "Transportation Research Part D Transport and Environment". The others are "Journal of Cleaner Production" with 54 citations, "Transportation Research Part E: Logistics and Transportation" with 47 citations, "Maritime Policy & Management" and "European Journal of Operational Research" with 38 citations, "Ocean Engineering" with 37 citations, "Transportation Research Part C Emerging Technologies" with 32 citations, "Energy" and "Energy policy" with 24 citations and "Applied Energy" with 23 citations.

The most emphasized topics of publications on green maritime issues

The most emphasized topics of the publications on green maritime are shown in Table 10.

Table 10. The most emphasized topics of the publications When

Subjects	Number of publications
Supply Chain and Logistics	23
Power Systems and Electric Vehicles	3
The Science of Sustainability	2
Management	2
Environmental Sciences	2

Paper and Wood Materials Science	1
Digital Signal Processing	1
Safety and Maintenance	1
Economy	1

Table 10 is analyzed, it is seen that the most emphasized topic in the publications is "supply chain and logistics".

Research method, analysis technique, data collection technique in the studies conducted

The research method, analysis technique and data collection technique of the top 10 most cited articles according to WOS results are shown in Table 11.

Table 11. Research Method, Analysis Technique, Data Collection Technique of Publications

Studies	Research Methodology	Analysis Technique	Data Collection Technique
1	A literature review was conducted as a research method.	Hardware-in-the-Loop experiments were applied.	Literature review, technical data and records from specific port microgrids and fully electric ships
2	Extended models and scenarios are derived for the economics and growth of ship speed and fleet development. These scenarios allow to analyze the relationships between ships' fuel consumption, emissions and logistical changes.	The study has created scenarios that provide changing data and decisive effects, and analyzed these scenarios.	-
3	Systematic programming and dynamic programming programs were used.	Ship speed variation has been analyzed using dynamic programming programs and comprehensive models.	Existing models and theoretical details from the literature on total speed diversity were utilized. The data required for fuel consumption and cost planning were obtained from previous studies and documents related to ship operations.
4	It formulated the green ship routing and scheduling problem by reviewing existing studies in the literature.	Various models in the literature were examined and analyzed how these models predict fuel consumption and emissions.	A literature review was conducted.
5	Literature review method was used.	The analysis was made by comparing and synthesizing the approaches and findings in the reviewed literature.	Data was collected through a systematic review of existing academic papers and reports covering fuel consumption, hydrodynamic factors, optimization models and emission control measures.

6	Stochastic Verification Programming was used. A model aiming to minimize the cost with analysis technology has been developed and it is aimed to unify the fleet management of ship operators under various scenarios.	A data set was created by bringing together the findings of previous research in the literature, summaries of technical reports and sources providing information on international maritime regulations. This data provided various parameters such as ship types, fuel costs, operating costs and scenarios to users in the sulfur emission control region.	A data set was created by bringing together the findings of previous research in the literature, summaries of technical reports and sources providing information on international maritime regulations.
7	A simulation-optimization based method has been developed for the supply ship. With this method, the weekly schedules of the supply ship were created by taking into account cost, emission and robustness factors.	A discrete event simulation model was used to simulate the effects of weather conditions on navigation and service times. In order to ensure cost efficiency for the ships, ship sailings and starting days were determined using a set covering model with a cost minimization objective. Speed optimization was applied to reduce travel times and associated fuel consumption.	Data from Statoil, a Norwegian oil and gas company, were used. Weather data taken from the Norwegian Meteorological Institute. These data also include wave height observations at 14 locations in the North Sea at three-hourly intervals from 1957 to 2013.
8	Emission laws in different countries and technical efficient solutions that can be used to comply with the laws have been investigated.	A framework analysis has been conducted linking emission policies and new marine technologies.	Various reports, scientific articles, and studies were reviewed.
9	A mathematical model has been developed to optimise the cruising speed of container ships between ports, thereby reducing fuel consumption and emissions.	An optimization model was created using mixed integer programming (Integer Linear Programming-ILP). In the model, optimization was performed using certain speed ranges.	The data is collected from existing literature on berth allocation problems and ship speed optimization studies.
10	A mathematical modeling and simulation method is used for multi-objective optimization of ship route and speed.	Non Dominant Sorting Genetic Algorithm II (NSGAII) and the Technique for Preference Ranking by Similarity to Ideal Solution (TOPSIS) methods were used.	Real data on the ship's route and speed were used. Ship performance parameters, fuel prices, weather data are used in the study.

When Table 11 is examined, it is seen that the articles generally provide data through literature review. The publications in the table are respectively; "Toward Future Green Maritime Transportation: An Overview of Seaport Microgrids and All-Electric Ships", "Balancing the economic and environmental performance of maritime transportation", "Ship speed optimization: Concepts, models and combined speed-routing scenarios", "The Green Ship Routing and Scheduling Problem (GSRSP): A conceptual approach", "Literature review on emission control-based ship voyage optimization", "Cost assessment of environmental regulation and options for marine operators", "Supply vessel planning under cost, environment and robustness considerations", "Is new emission legislation stimulating the implementation of sustainable and energy-efficient maritime technologies?", "The multi-port berth allocation problem with speed optimization and emission considerations" and "Green maritime: a routing and speed multi-objective optimization strategy" is in the form of.

Conclusion and Contributions

The increasing importance of maritime transportation in international trade necessitates the adoption of environmentally friendly and sustainable practi-

ces. Sustainable green maritime is a critical approach for a cleaner and healthier world by minimizing the environmental impact of the maritime sector. In this study, it is aimed to examine the researches conducted in the field of green maritime by using bibliometric analysis method and visual mapping techniques. Using the WOS database, the most influential articles, authors, countries and journals in this field were identified.

The research findings show that studies on green maritime studies, although fluctuating, have generally increased over the years and are concentrated especially in countries such as China, Denmark and Norway. Among the universities with the highest number of publications are "Technical University of Denmark", "Dalian Maritime University" and "Shanghai Maritime University". In addition, the most commonly used keywords and topics in the literature were also identified, and topics such as "green maritime logistics", "speed optimization" and "emissions" were found to be prominent. This situation shows that especially maritime transportation, reduction of greenhouse gas emissions in transportation, and the effects of ship speed on emissions during transportation have been investigated. It also shows the necessity of reducing CO2 emissions and achieving sustainable green maritime in the maritime industry.

Sustainability in the maritime industry not only provides environmental benefits, but also offers a broader perspective, taking into account economic and social dimensions. This also reflects the implications encompassing all maritime components, primarily passenger transportation in coastal destinations. Therefore, sustainability in the maritime industry, based on multidisciplinary reviews, constitutes important steps that add value to the sustainability of all areas directly and indirectly connected, including the tourism and hospitality industry. So much so that maritime transportation is a significant motivator in tourists' travel preferences. In the investment plans of coastal countries, the maritime industry, which is prioritized for the economic development of maritime tourism destinations, consists of ports, ships, ship operations, shipyards, maritime transport companies, suppliers, and other intermediary services. Consequently, investments in coastal countries are shaped by opportunity costs, and sectoral developments that contribute to the development of cities and regions progress accordingly. For example, in passenger transportation (cruise ships, yachts, sailboats, and other maritime tourism vehicles, sea buses, ferries, cruise lines, cruise ports, marinas, piers, docks, etc.) and in freight transportation (tankers, container ships, Ro-Ro ships, bulk carriers, cargo ships, ports, shipyards for maintenance and repairs, etc.), there is a distinct sectoral operation. Therefore, the term "sustainable green maritime" should not be considered as a specific area. It is an impor-

tant component of international trade that contributes to all areas connected with maritime transportation, integrates with each other, values management and operations, and emphasizes sustainability. In the long term, sustainable green maritime practices will also have positive outcomes in areas such as cost savings, operational efficiency, service quality, and public health. Sustainable green maritime, increasing energy efficiency, use of renewable energy sources, waste management and adoption of environmentally friendly technologies are important steps to improve environmental performance in the sector. In addition, international regulations and policies play a major role in promoting sustainable green maritime practices. For instance, IMO has included strategic targets for green maritime by taking into account sustainable development (IMO, 2023). Indeed, Maersk ECO Delivery has designed a sustainable service by taking the initiative in the use of environmentally friendly fuels in the field of green shipping in the world (Maersk Line, 2022).

There are many studies in the literature in the maritime field (Ampah et al., 2021; Le et al., 2024). Among these studies, there are also studies carried out within the scope of green maritime (Davarzani et al., 2016; Fang et al., 2019; Ma et al., 2021; Mjelde et al., 2019; Song et al., 2023). For example, in the study conducted by Tadros et al. (2023), they conducted a bibliometric analysis to identify technologies and methods to reduce fuel consumption and exhaust emissions within the framework of sustainable green maritime. Accordingly, they focused on the main factors that have a direct impact on ship performance, exhaust emissions and fuel consumption. Within the scope of the analysis, three keywords, namely engine technologies, propeller selection and alternative fuels, were identified and studies between 2010 and 2022 were analyzed in the Scobus database. They concluded that no single solution is sufficient to achieve maritime sustainability, but a combination of various techniques can improve energy efficiency. Similarly, WOS database and VOSviewer were used in the study. Green maritime covers a broader spectrum, while clean alternative marine fuels address more specific issues. China, Denmark and Norway are the countries that stand out in this study. Time frames vary. Ampah et al. (2021) examined the studies on clean alternative marine fuels within the scope of green shipping between 2000-2020 using scopus and WOS database. The use of the WOS database in this study is similar to the use of bibliometric analysis and visual mapping techniques. The use of "alternative marine fuels" as a keyword differs in terms of the different time period. While our study analyzed sustainable green maritime research, this study focused on clean alternative marine fuels. In the field of sustainable green maritime, China, Denmark and Norway countries and logistics and speed optimization came to the forefront, while in the

field of alternative fuels, the USA as a country and alternative fuels such as methanol, LNG, ammonia and hydrogen came to the forefront. Visual mapping also varies using the R-studio bibliometrix package.

Theoretical contributions

Upon reviewing the literature, there are maritime studies that support sustainable maritime tourism (Di Vaio et al., 2020; Frković et al., 2024; Ng et al., 2019; Simonsen et al., 2019; Zanobetti et al., 2023). Similarly, there are tourism studies that support maritime studies within the context of green maritime, with recommendations for sustainable maritime tourism, green ships, green practices, and sustainable practices (Badollahi et al., 2022; Caparrós-Martínez et al., 2022; Onyango, 2025; Paiano et al., 2020; Pallis & Vaggelas, 2019; Shi & Luo, 2018). This study highlights the connection between the concept of "green maritime" and tourism, emphasizing their shared common ground, and thus provides theoretical contributions to both maritime and tourism literature. Another common ground is the prominence of the maritime and tourism industries in Türkiye's development plans and economic revenue shares, with these two industries being prioritized in development goals and investment plans. Particularly, cruise tourism, one of the rapidly growing sectors in the tourism industry, is directly connected to maritime activities and serves as an important development tool for Türkiye. Therefore, it is recommended that green maritime practices be considered in coastal countries, and research be conducted from multidisciplinary perspectives, providing theoretical contributions.

A review of studies conducted in the field of green shipping in Türkiye reveals a predominant focus on energy efficiency, emission reduction, sustainable port management, and environmentally friendly maritime transportation (Altınpınar, 2025; Millet et al., 2021; Çelik & Yorulmaz, 2025). Academic institutions specialising in maritime studies, such as Istanbul Technical University, Istanbul University, and Dokuz Eylul University, have undertaken substantial research in this domain. The focus of these studies typically encompasses alternative fuel usage, carbon emission reduction, optimisation of ship operations, and green logistics strategies. In this context, the literature emphasizes common strategic objectives aimed at reducing the environmental damage caused by international maritime activities and proposes recommendations within this scope (Kurt, 2023; Millet et al., 2021). Studies evaluating green ports that promote sustainability also examine the current state and significance of green maritime practices in Türkiye (Çelik & Yorulmaz, 2025). Indeed, the IMO targets, which advocate for policies aimed at reducing maritime transport emissions to zero, have steered researchers toward this field. Challenges awai-

ting shipowners, including financial and operational issues, access to new fuels, competitive pressures, and compliance with new regulations, have been identified (Altınpınar, 2025). The Port Operators Association of Türkiye (TURKLIM) is addressing the green transformation of ports, evaluating innovative ports within the framework of the zero-emission port concept (TURKLIM, 2024). There is a growing interest in ports that aim to contribute to environmental sustainability and improve working conditions through green port projects. Additionally, the potential of ports in Türkiye to achieve green port status is being actively evaluated (Keske et al., 2025). Research on green ports in Türkiye is becoming more diverse, with a strong emphasis on activities implemented to promote the use of sustainable energy (Demirci & Arıcan, 2024). In Türkiye, 20 ports hold "Green Port" certifications (TURKLIM, 2021). However, the effectiveness of green port practices is expected to improve, and the importance of increasing the number of such certified ports is frequently emphasized (Koşar Danışman & Özalp, 2016). Building on this, several recommendations can be made to provide a comprehensive analysis of green shipping research in Türkiye and to compare it with international literature. Firstly, bibliometric analyses on green shipping literature in Türkiye can be conducted to identify research trends and gaps in the field. This study provides an important basis for identifying current research trends, knowledge gaps and future research areas in the field of green maritime. It contributes significantly to understanding the current state of green maritime research and identifying future research directions. For instance, according to the research results, it is understood that the concepts highlighted in the word cloud (maritime, ship, green, environmental, shipping, industry, transportation, sustainability, transport, port, ship-owners, management, organization, sailing, voyage, cruise, etc.) need to be addressed. At the same time, it is clear that these concepts guide research in sustainable maritime and its related fields.

Practical contributions

Filling knowledge gaps and developing new strategies in this area will contribute significantly to enhancing environmental sustainability in the maritime industry. It is essential for maritime companies to have suitable tools to measure and evaluate their sustainable performance in economic, social, and environmental dimensions (Di Vaio et al., 2020; Zanobetti et al., 2023). Consequently, the maritime sector is expected to address the challenges and risks arising from increasing sustainability pressures. Additionally, examining Türkiye's maritime environmental policies and its compliance with international regulations would provide valuable insights for the advancement of sustainable maritime practices. In

addition, enhancing industry-academia cooperation could facilitate the development of more applicable and innovative solutions to current challenges in the sector. Conducting case studies on the implementation of green technologies in Turkish ports and ships can contribute to the literature by documenting local experiences and best practices. Finally, strengthening international cooperation with leading countries in green shipping, such as China, Denmark and Norway, would support the transfer of knowledge and technology, thus promoting Türkiye's progress in this area. This study, considering sustainable development goals, advocates for fostering collaborations on green maritime initiatives among maritime and tourism industries, as well as national and international organizations and institutions, to encourage maritime companies. In this context, expanding the scope of existing research in Türkiye and conducting more in-depth studies based on the proposed recommendations would make significant contributions to the green shipping literature and to the sustainable development of the maritime sector. Finally, this study makes important contributions to the development of new strategies and policies to improve environmental sustainability in the maritime sector and provides a reference point for research in all related areas, making significant contributions to both academia and industry.

Limitations and recommendations

The limitation of this study is that it only includes analyses based on the WOS database and does not include studies in other scientific databases. This may result in the analysis results not providing a complete overview. Another limitation is the limited number of publications analyzed in this study. This can make it difficult to generalize the analysis. Furthermore, the bibliometric analysis and visual mapping techniques used focused only on specific keywords, specific time periods and publications in specific languages and do not cover all research in the field of green maritime. It is recommended that future studies focus on more comprehensive and empirical research in areas related to the maritime industry, especially sustainable maritime tourism, where green practices are valued.

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