

A SYSTEMATIC LITERATURE REVIEW OF SUSTAINABILITY APPROACHES IN RECREATION MANAGEMENT

REVISÃO SISTEMÁTICA DA LITERATURA SOBRE ABORDAGENS DE SUSTENTABILIDADE NA GESTÃO DE RECREAÇÃO

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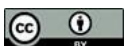
The authors declare that there is no conflict of interest

Abstract

This study systematically examined how the concept of sustainability has been addressed in recreation management across managerial, environmental, social, and behavioral dimensions by reviewing studies published between 2018 and 2025. Following the PRISMA 2020 guidelines, searches were conducted in Scopus, Web of Science, Google Scholar, and TR Dizin databases, yielding 412 records and seven additional sources. After removing 52 duplicates, 62 full-text articles were assessed, and 18 met the inclusion criteria for analysis. Data were analyzed using open and axial coding in Microsoft Excel and NVivo 14, with inter-coder reliability measured at $\kappa = 0.86$. Bibliometric validation was conducted using VOSviewer 1.6.20. Findings were clustered under four main themes: managerial approaches, participation and pro-environmental behavior, nature-based recreation and environmental management, and trends and research gaps in Turkish literature. Newcastle–Ottawa Scale assessments indicated that most studies presented low to moderate risk of bias. Overall, sustainability is predominantly framed through environmental protection, while managerial integration, governance, and performance assessment dimensions remain underdeveloped, particularly in local contexts. The results highlight that sustainable recreation management should evolve beyond environment-centered approaches toward institutionalization through social participation, leadership, resource management, and measurable performance indicators. Based on the findings, it is recommended to develop multidimensional assessment frameworks that integrate environmental indicators with managerial performance and participatory governance in sustainable recreation management.

Resumo

Este estudo examinou sistematicamente como o conceito de sustentabilidade tem sido abordado na gestão de atividades recreativas, considerando as dimensões gerencial, ambiental, social e comportamental, por meio da revisão de estudos publicados entre 2018 e 2025. Seguindo as diretrizes PRISMA 2020, as buscas foram realizadas nas bases de dados Scopus, Web of Science, Google Scholar e TR Dizin, resultando em 412 registros e sete fontes adicionais. Após a remoção de 52 duplicatas, 62 artigos em texto completo foram avaliados, dos quais 18 atenderam aos critérios de inclusão para análise. Os dados foram analisados utilizando codificação aberta e axial no Microsoft Excel e NVivo 14, com confiabilidade interavaliadores medida em $\kappa = 0,86$. A validação bibliométrica foi realizada utilizando o VOSviewer 1.6.20. Os resultados foram agrupados em quatro temas principais: abordagens gerenciais, participação e comportamento pró-ambiental, recreação em contato com a natureza e gestão ambiental, e tendências e lacunas de pesquisa na literatura turca. As avaliações da Escala de Newcastle-Ottawa indicaram que a maioria dos estudos apresentou risco de viés baixo a moderado. De forma geral, a sustentabilidade é predominantemente enquadrada pela proteção ambiental, enquanto as dimensões de integração gerencial, governança e avaliação de desempenho permanecem subdesenvolvidas, particularmente em contextos locais. Os resultados destacam que a gestão sustentável do lazer deve evoluir para além de abordagens centradas no meio ambiente, rumo à institucionalização por meio da participação social, liderança, gestão de recursos e indicadores de desempenho mensuráveis. Com base nas descobertas, recomenda-se o



Keywords: Recreation Management. Sustainability. Environmental Awareness.

desenvolvimento de estruturas de avaliação multidimensionais que integrem indicadores ambientais com desempenho gerencial e governança participativa na gestão sustentável do lazer.

Palavras-chave: Gestão do Lazer. Sustentabilidade. Consciência Ambiental.

1 INTRODUCTION

Recreation management is positioned within the applied dimension of management science as an interdisciplinary field that plans, organizes, and supervises individuals' leisure experiences (Cury *et al.*, 2023). Initially limited to the organization of physical activities, this field has gradually integrated the principles of social participation, resource utilization, and environmental balance, thereby incorporating the concepts of social responsibility and sustainability into managerial processes (Guidotti *et al.*, 2023). Today, recreation is regarded not merely as a means of leisure but as a managerial domain that supports the sustainability of individual well-being and the quality of social life (Safarpour *et al.*, 2025). This transformation necessitates the coordinated implementation of performance management, participant satisfaction, and environmental responsibility within managerial processes (Gregori-Faus *et al.*, 2025; Özkaya & Çelebi, 2025).

The principles of sustainability have become decisive factors in recreation planning in terms of long-term resource management, user behavior, and environmental balance. Sustainable recreation management is grounded in both the notion of nature conservation and the establishment of a balance among managerial responsibility, social awareness, and economic efficiency. Current trends emphasize the joint evaluation of environmental awareness and institutional performance within managerial processes, as well as the strengthening of social participation in decision-making mechanisms. Thus, sustainability has evolved from being merely an environmental objective to becoming a strategic component of recreation management.

In the international literature, the concept of sustainability has been increasingly associated with the field of management science in a more systematic manner. It has been emphasized that sustainable sport and recreation practices are integrated into organizational leadership and policy development processes (Cury *et al.*, 2023). In the

management of sustainable facilities, the use of resources, energy efficiency, and institutional standards are required to be addressed in managerial coordination (Gregori-Faus *et al.*, 2025). Sustainable sport management has been shown to be restructured on the basis of knowledge, skills, and managerial competencies (Guidotti *et al.*, 2023; Öz *et al.*, 2025). Moreover, scale development studies aimed at measuring sustainability awareness in sport and recreation management demonstrate that the concept has become institutionalized in a systematic manner (Safarpour *et al.*, 2025).

In the Turkish literature, the concept of sustainability is predominantly addressed within the framework of its environmental dimension. Studies examining the alignment of sport recreation programs with sustainability criteria indicate that managerial aspects often remain in the background (Özkaya & Çelebi, 2025). Research on sustainable recreation practices conducted in coastal regions has revealed inadequacies in planning and monitoring processes (Tekdamar & Cengiz, 2024). The managerial component of sport recreation has been noted to be insufficiently defined (Karavelioğlu, 2024). Furthermore, it has been stated that sustainable event management has not yet been institutionalized at the policy level (Tavazar & Güzel, 2018). These findings suggest that, while the concept of sustainable recreation in Türkiye is conceptually evolving, it has not yet achieved managerial integrity.

This study examines the concept of sustainability in recreation management through managerial, environmental, social, and behavioral dimensions. By analyzing national and international research published between 2018 and 2025, the study identifies the development, strengths, and conceptual gaps within sustainable recreation management. The aim is to evaluate the transition of managerial sustainability in the literature from an environmentally oriented approach toward a strategic management paradigm.

2 METHOD

2.1 Research model

This study is a systematic literature review that examines scholarly publications addressing sustainability approaches in recreation management. The review process was designed in accordance with the core principles of the PRISMA 2020 guidelines for

systematic reviews. The purpose of the study is to reveal how the concept of sustainability has been addressed in the context of recreation management across managerial, environmental, social, and behavioral dimensions in research published between 2018 and 2025.

2.2 Data collection tools

The literature search was conducted across four databases to encompass the most recent and accessible sources in the field:

- *Scopus*
- *Web of Science*
- *Google Scholar*
- *TR Dizin*

The search period covered publications from January 2018 to September 2025. The keywords used in the search process included (“recreation management,” OR “sustainability,” OR “environmental responsibility,” OR “recreation policy,”) AND (“sustainable development” OR “green management” OR “environmental management”) AND (“rekreasyon yönetimi,” OR “sürdürülebilirlik.”) Both English and Turkish keywords were employed to ensure a comprehensive review of the national and international literature.

2.3 Inclusion criteria

Three primary criteria were applied to determine the studies included in the analysis. First, the research topic was required to be directly related to recreation management. Second, the concept of sustainability needed to be addressed in at least one of the following dimensions: managerial, environmental, participatory, or behavioral. Finally, the study had to consist of peer-reviewed journal articles or institutional reports relevant to the field. These criteria encompassed both research developing managerial models and studies focusing on participant behavior and environmental awareness.

2.4 Exclusion criteria

Studies were excluded from the review if they met any of the following conditions. Research focusing solely on tourism without incorporating a recreation dimension was excluded. Studies limited to a single sport branch or field-based performance analyses were also omitted. In addition, theses, conference abstracts, and preliminary reports with insufficient data were not considered. This exclusion strategy ensured that the review remained focused on recreation management literature and maintained conceptual consistency throughout the analysis.

2.5 Selection process

During the screening phase, all identified records were first reviewed at the title and abstract level. Studies that were irrelevant to the research topic or duplicates were excluded at this stage. The remaining studies deemed suitable were then subjected to full-text assessment. In the final stage, a total of 18 studies that met the inclusion criteria were incorporated into the analysis. These studies consisted of both international and national sources. Each step of the selection process was reported in accordance with the PRISMA 2020 flow diagram, which clearly indicated the number of records screened, assessed for eligibility, excluded, and ultimately included in the review.

2.6 Methodological quality assessment

The methodological quality of the included studies was evaluated using the Newcastle–Ottawa Scale (NOS), which was originally developed to assess the methodological quality of observational studies and was adapted for use in the present research (Wells *et al.*, 2014). The scale evaluates studies across three dimensions—selection (0–4), comparability (0–2), and outcome (0–3)—for a total possible score of nine points. Most studies scored seven or higher, placing them within the “low risk” category. This result indicates that systematic reviews in the field of recreation management generally demonstrate a high level of methodological reliability

3 FINDINGS

3.1 Data collection and analysis

During the analysis process, the 18 included studies were systematically evaluated, and a thematic framework was established through content analysis. Key data from each article were extracted based on variables such as publication year, country, research design, sustainability dimension addressed, main findings, and managerial contributions.

The analysis process was conducted based on the qualitative data analysis approach proposed by Miles and Huberman (1994). As a result of the coding procedure, the data were organized under four main themes: managerial approaches, participation and pro-environmental behavior, nature-based recreation management, and trends in the Turkish literature. These themes represent the conceptual evolution of sustainability within the literature and illustrate its varying levels of association with management science. To enhance the validity of the thematic patterns, a bibliometric analysis was performed using VOSviewer 1.6.20, through which co-occurrence networks among keywords were generated. The high centrality values of the terms “sustainability,” “recreation management,” and “environmental responsibility” indicated that the literature is predominantly concentrated around managerial and environmental dimensions. This finding demonstrated that the four main structures identified through thematic analysis were also consistent at the bibliometric level. In the final stage, the extracted data were re-examined in terms of their managerial contribution levels, and the conceptualization of sustainability within recreation management was interpreted through a relational model framework. Consequently, the overall trends in the literature were evaluated both descriptively and within a coherent conceptual structure, establishing the four main themes as the foundational pillars of sustainable recreation management

Table 1*Research Procedure in Accordance with the PRISMA 2020 Guidelines*

Stage	Number
Screening	412
Additional sources	7
Duplicate records removed	52
Titles and abstracts screened	367
Abstracts excluded	305
Full texts assessed	62
Full texts excluded	44
Studies included	18

Source: Authors

Table 2*Risk of Bias Assessment of Included Studies (Newcastle–Ottawa Scale)*

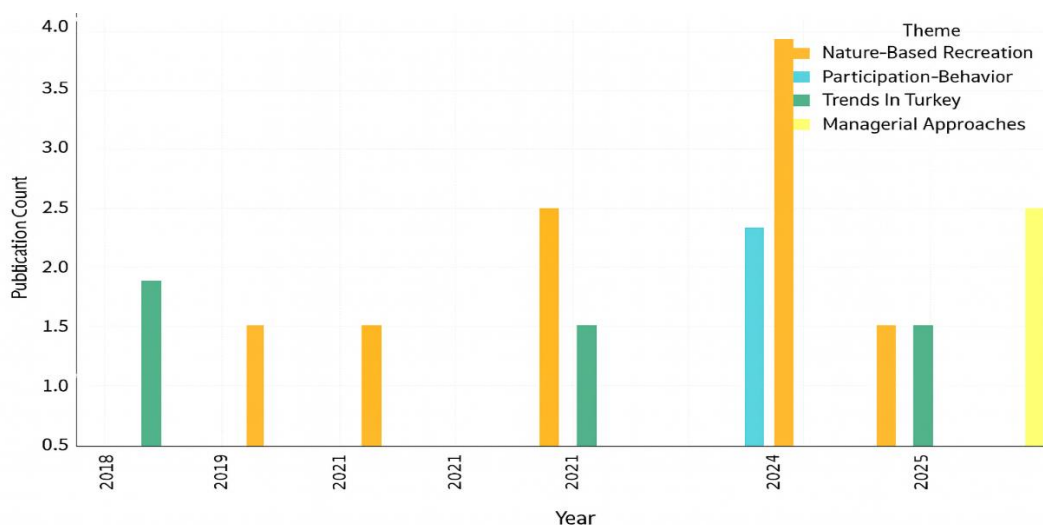
Study	Selection (0–4)	Comparability (0–2)	Outcome (0–3)	Total Score (0–9)	Risk Level
Cury <i>et al.</i> (2023)	4	2	3	9	Low
de Bernardi <i>et al.</i> (2023)	4	2	3	9	Low
Francis <i>et al.</i> (2023)	4	2	2	8	Low
Genç <i>et al.</i> (2022)	3	1	2	6	Moderate
Gregori-Faus <i>et al.</i> (2025)	4	2	3	9	Low
Guidotti <i>et al.</i> (2023)	4	2	3	9	Low
Han <i>et al.</i> (2023)	3	2	3	8	Low
Karavelioğlu (2024)	3	1	2	6	Moderate
Morse <i>et al.</i> (2022)	4	2	3	9	Low
Özkaya and Çelebi (2025)	3	1	3	7	Moderate
Safarpour <i>et al.</i> (2025)	4	2	3	9	Low
Tavazar and Güzel (2018)	3	1	2	6	Moderate
Tekdamar and Cengiz (2024)	3	2	2	7	Moderate
Winter <i>et al.</i> (2019)	4	2	3	9	Low Risk
Yazıcı and Pirli (2022)	3	1	2	6	Moderate
Özdedeoğlu and Erdoğan (2023)	3	1	3	7	Moderate
Erkekli and Gülcan (2025)	3	2	3	8	Low Risk
Yener (2021)	3	1	2	6	Moderate

Source: Authors

Table 2 presents the methodological reliability levels of the 18 studies included in the review. The scoring was conducted based on the criteria of selection, comparability, and outcome. Most studies achieved scores of seven or higher, placing them within the “low” or “moderate” risk categories. This finding indicates that methodological reliability is generally maintained within the recreation management literature. Studies categorized as low risk were distinguished by strong sample selection, transparent methodological reporting, and the use of comparative analysis Cury *et al.* (2023), Guidotti *et al.* (2023), Gregori-Faus *et al.* (2025), and Safarpour *et al.* (2025) were classified within this group, as they systematically integrated the concept of sustainability into managerial processes. Studies identified as having a moderate risk level were generally descriptive in nature, exhibiting limitations in methodological transparency and comparative analysis. Özkaya and Çelebi (2025), Tavazar and Güzel (2018), and Tekdamar and Cengiz (2024) were included in this group, emphasizing local implementations. Therefore, these findings suggest that research on sustainable recreation management within the Turkish literature is still in a developmental stage in terms of methodological standardization.

4 RESULTS

The 18 studies included in the review were subjected to content analysis and classified under four main themes. The findings were evaluated within the framework of managerial approaches, participant behavior and environmental awareness, nature-based recreation management, and trends in the Turkish literature.

Figure 1*Theme–Year Distribution (2018–2025)*

Source: Authors

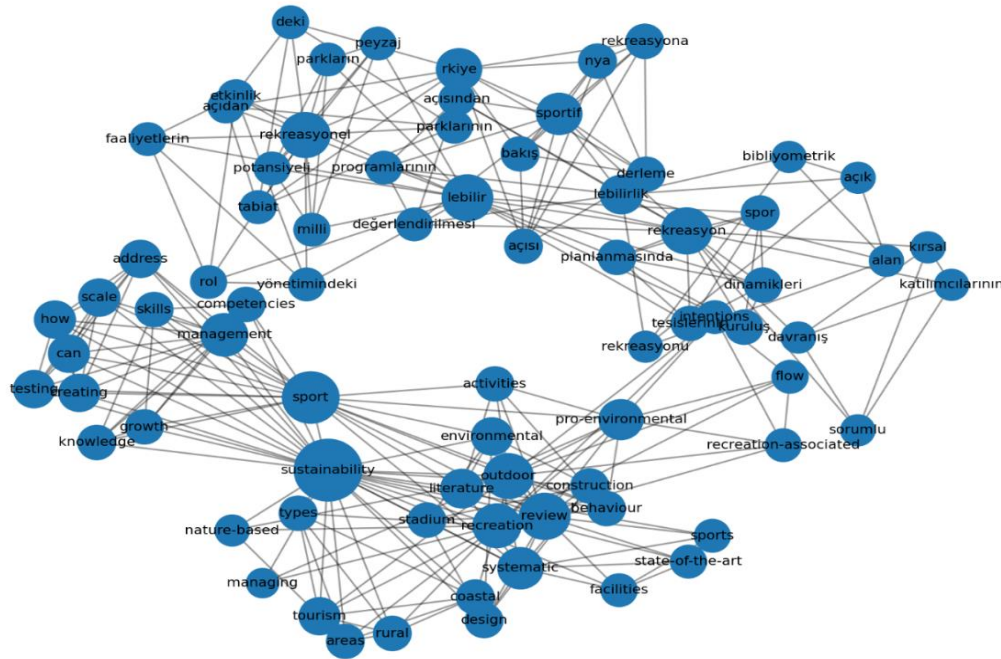
When examining **Figure 1**, it is observed that during the 2018–2020 period, most studies concentrated on nature-based recreation and environmental sustainability. In these years, sustainability was primarily evaluated within the framework of resource conservation and environmental awareness (Winter *et al.*, 2019). During the 2021–2022 period, publication trends began to address the relationship between participant behaviors, environmental awareness, and managerial processes (Han *et al.*, 2023). After 2023, however, a clear managerial focus has emerged in the literature. During this period, published studies have increasingly focused on scale development and review research that integrate the principle of sustainability with management science (Cury *et al.*, 2023; Guidotti *et al.*, 2023; Safarpour *et al.*, 2025). This trend indicates that within the recreation management literature, sustainability has begun to be conceptualized not merely as an environmental concern but as an institutional and managerial component.

Within the **managerial approaches** theme, recreation management is observed to be increasingly integrated with sustainable organizational models. Cury *et al.* (2023) associated sustainable sport and recreation management with the principles of environmental leadership. Guidotti *et al.* (2023) emphasized the necessity of aligning managerial competencies with the concept of sustainable development. Safarpour *et al.* (2025) demonstrated, through a scale development study measuring sustainability awareness in sport management, that managerial structures can be made measurable and systematically evaluated. Francis *et al.* (2023) and Gregori-Faus *et al.* (2025) highlighted

the critical role of facility planning and environmental design in shaping sustainable management policies. Özdedeoğlu and Erdoğan (2023) focused on the foundational dynamics of sustainable facility management in Türkiye and proposed a practice-oriented model. Overall, this theme indicates that managerial sustainability requires not only environmental policy but also the integration of leadership, organizational coherence, and resource management.

Within the participation, behavior, and environmental awareness theme, individuals' attitudes and levels of awareness in recreational activities have come to the forefront. de Bernardi *et al.* (2023) demonstrated that pro-environmental behaviors are more strongly manifested in nature-based activities. Han *et al.* (2023) noted that the flow experience during outdoor recreation positively influences environmental intentions. Erkekli and Gülcan (2025) found that sustainability awareness among rural recreation participants is reflected in their level of responsible behavior. Karavelioğlu (2024) emphasized that although awareness of sport-related recreation in Türkiye has increased, managerial support remains limited. These findings suggest that sustainable recreation management represents not only an institutional but also a behavioral transformation process.

Within the **nature-based recreation and environmental management** theme, strategies related to open space planning and the use of natural resources have become prominent. Winter *et al.* (2019) emphasized that strengthening managerial control processes is essential to maintain the sustainability of nature-based tourism. Morse *et al.* (2022) argued that considering environmental carrying capacity in the planning of outdoor recreation is a prerequisite for sustainability. Tekdamar and Cengiz (2024) evaluated the suitability of sustainable recreation types in the Western Black Sea coastal regions and proposed a model for spatial planning. Yener (2021) indicated that environmental monitoring criteria remain insufficient in the analysis of nature parks from a recreational perspective.

Figure 2*Keyword Network in the Literature on Sustainable Recreation Management*

Source: Authors

Yazıcı and Pirlı (2022) analyzed the recreational potential of national parks within the framework of sustainable landscape management. Overall, this theme reveals a shared tendency toward awareness of sustainable environmental management and the planned utilization of natural areas.

When examining Figure 2, it is evident that the strongest connections among the keywords are concentrated around the concepts of “sustainability,” “recreation management,” and “environmental responsibility.” These three terms constitute the core axis shaping the orientation of the literature. The network map shows that the nodes “management,” “participation,” “leadership,” “policy,” and “awareness” have appeared more frequently in the post-2023 period. This shift indicates that discussions on sustainability have moved beyond an environmentally centered approach toward a perspective of institutional governance and participatory management. Overall, the network structure demonstrates that the concept of sustainability within recreation management literature has evolved into a multidimensional framework. The interaction among the managerial, behavioral, and environmental dimensions has strengthened; however, data-driven governance models and measurement tools remain underdeveloped.

The keyword network analysis reveals a conceptual intersection across the themes and highlights the multidimensional evolution of sustainability understanding in the field.

Within the **theme of trends and gap analysis in the Turkish literature**, it has been determined that research in this area has progressed within a limited conceptual and methodological framework. Genç *et al.* (2022) conducted a bibliometric analysis of the relationship between outdoor recreation and sustainability in international publications, revealing the limitations of the Turkish literature. Özkaya and Çelebi (2025) emphasized the lack of managerial structures in evaluating the sustainability of sport recreation programs. Tavazar and Güzel (2018) stated that the understanding of sustainability in recreational event management has not yet been established at the policy level. Karavelioğlu (2024) noted that, although the concept has advanced at the practical level in Türkiye, theoretical depth has yet to be achieved. Overall, this theme indicates that the national literature has not yet developed a comprehensive paradigm for sustainable recreation management.

Table 3

Thematic Summary of Included Studies

Theme	Authors	Year	Summary of Findings	Managerial Contribution
Managerial Approaches and Organizational Sustainability	Cury <i>et al.</i> ; Guidotti <i>et al.</i> ; Safarpour <i>et al.</i> ; Francis <i>et al.</i> ; Gregori-Faus <i>et al.</i> ; Özdedeoğlu and Erdoğan	2023–2025	Managerial sustainability, leadership, and facility management models have been emphasized.	An institutional understanding of sustainability and a leadership-based management model have been proposed.
Participation, Behavior, and Environmental Awareness	e Bernardi <i>et al.</i> ; Han <i>et al.</i> ; Erkekli & Gülcan; Karavelioğlu (2023–2025)	2023–2025	Participant behaviors and levels of environmental awareness show an increasing trend.	The reflection of sustainability awareness in social behavior supports managerial planning.
Nature-Based Recreation and Environmental Management	Winter <i>et al.</i> ; Morse <i>et al.</i> ; Tekdamar & Cengiz; Yener; Yazıcı & Pirlı	2019–2025	Open space management and resource conservation-oriented approaches have been emphasized.	The concepts of environmental monitoring and carrying capacity have been strengthened in spatial planning.
Trends and Gap Analysis in the Turkish Literature	Genç <i>et al.</i> ; Özkaya & Çelebi; Tavazar & Güzel; Karavelioğlu	2018–2025	Conceptual diversity and data limitations persist in the national literature.	The institutionalization of a management-based sustainability approach is required.

Source: Authors

5 DISCUSSION AND CONCLUSION

The literature indicates that the concept of sustainability in recreation management has become increasingly institutionalized. In most studies, sustainability is addressed not merely as an environmental necessity but as a fundamental component of management science. Cury *et al.* (2023) and Guidotti *et al.* (2023) emphasized that managerial sustainability should be integrated into performance, leadership, and decision-making processes. Safarpour *et al.* (2025) demonstrated that sustainability awareness can be evaluated as a managerial criterion. This trend reveals that recreation management has evolved from being primarily nature-conservation-oriented into an organizational and managerial discipline.

The international literature demonstrates that sustainable recreation is implemented through systematic models, whereas studies conducted in Türkiye remain largely practice-oriented. Gregori-Faus *et al.* (2025) and Francis *et al.* (2023) noted that sustainable facility management is based on institutional standards. In contrast, Özkaya and Çelebi (2025) and Tavazar and Güzel (2018) indicated that most Turkish applications lack managerial coherence and policy continuity. This disparity suggests that while managerial institutionalization has advanced at the international level, conceptual alignment at the national level has yet to be fully achieved.

From a methodological perspective, most studies are descriptive in nature. Sample diversity, depth of data analysis, and the application of management theory remain limited. In particular, studies published in Türkiye often confine the concept of sustainability to environmental awareness, with insufficient analysis of the managerial dimension. This limitation contributes to a delay in the development of a robust theoretical framework within the field of recreation management. In contrast, international reviews exhibit a more systematic structure in terms of transparent reporting, data validity, and the reliability of measurement instruments.

From an applied perspective, sustainable recreation management has evolved into not only an environmental protection policy but also a tool for enhancing social participation and managerial efficiency within local governments, universities, and public institutions. Özdedeoğlu and Erdoğan (2023) emphasized that the principles of

sustainable management should be integrated into institutional structures in facility planning. Karavelioğlu (2024) demonstrated that increasing social participation is a prerequisite for managerial success. These findings indicate that sustainability principles must become measurable not only in strategic documents but also within implementation processes. Therefore, sustainability in recreation management is no longer merely an environmental obligation but a managerial and social necessity. The literature shows that sustainability has been redefined along the axes of long-term resource management, participatory behavior, and organizational leadership. While international studies exhibit a mature structure in terms of managerial institutionalization, the Turkish literature remains in a developmental stage due to conceptual diversity and data limitations. This underscores the necessity for future research to develop theory-based, measurable, and policy-oriented models in the field of recreation management.

5.1 Recommendations

The future of sustainable recreation management should be grounded not only in environmental preservation but also in a measurable, accountable, and participatory managerial system. In this context, academic studies should more strongly integrate sustainability with management science. Newly developed models in the field should address environmental indicators alongside managerial performance criteria and be transformed into concrete scales capable of assessing the sustainability capacity of institutions. Developing multidimensional measurement tools that examine the relationship between environmental awareness and managerial efficiency would enhance theoretical depth and strengthen standardization in practice. Such tools are recommended to encompass components such as leadership, resource utilization, social participation, and ethical management.

Local governments should restructure their sustainable recreation policies not only with a focus on environmental protection but also in a way that enhances social inclusiveness and managerial efficiency. Implementing participatory management models will help guide user behaviors toward sustainable lifestyles and create a democratic balance in decision-making processes. Integrating stakeholder representation, community participation, and local feedback mechanisms into institutional structures will transform sustainability from a theoretical objective into a functioning principle of

governance (Gregori-Faus *et al.*, 2025). In this process, the integration of environmental protection, energy efficiency, economic sustainability, and social awareness policies will strengthen the strategic nature of recreation management (Cury *et al.*, 2023).

From a policy-making perspective, sustainable recreation must be integrated into national development strategies. At the local and regional government levels, it is particularly important to incorporate sustainability objectives into budgeting, resource allocation, and performance evaluation processes. Maintaining a balance among environmental management, social participation, and economic efficiency should be considered a key parameter in the long-term planning of recreational areas. This approach will transform recreation from merely a “leisure management” activity into a management domain that supports sustainable urbanization, social welfare, and ecological balance.

Future research should be built upon data-driven and interdisciplinary frameworks. Mixed-method studies that integrate both qualitative and quantitative approaches can reveal the impacts of sustainable recreation policies in a more comprehensive manner. Furthermore, employing methods such as bibliometric analysis, network visualization, and thematic mapping to periodically monitor trends in the literature will play a critical role in shaping the direction of knowledge production in the field. Specifically for Türkiye, reducing conceptual diversity and strengthening theory-based managerial models will help align sustainability research with international standards.

In conclusion, sustainable recreation management has evolved from an environmentally centered approach into a multidimensional structure grounded in managerial innovation, data-driven decision-making, and social interaction. The permanence of this transformation depends on academia’s ability to deepen theoretical understanding, local governments’ capacity to enhance implementation, and policymakers’ efforts to institutionalize a strategic understanding of sustainability. In this way, recreation management will stand at the intersection of ecological and managerial sustainability, serving as an applied laboratory for contemporary management science.

5.2 Limitations and strengths

The main strength of this review lies in its comprehensive evaluation of both national and international studies published between 2018 and 2025. Collecting literature

from multiple databases has provided a holistic overview of trends in sustainable recreation management. The study also enabled a comparative analysis between national literature and international approaches in terms of conceptual framework and managerial perspective (Cury *et al.*, 2023; Gregori-Faus *et al.*, 2025).

The limitations of this research are primarily related to conceptual diversity and methodological inconsistencies within the literature. The focus of some studies solely on environmental sustainability has restricted the analysis of managerial and social dimensions. Moreover, a large portion of the studies in the Turkish literature are practice-oriented rather than theory-driven, which has limited the scope for comparative analysis (Özkaya & Çelebi, 2025; Tavazar & Güzel, 2018).

The contribution of this study lies in its comprehensive examination of the concept of sustainability within recreation management across environmental, managerial, and social dimensions. The review demonstrates that sustainable recreation management should be addressed not only through environmental policies but also in conjunction with principles of institutional governance and social participation. This approach provides the literature with greater theoretical depth and managerial vision.

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Authors' Contribution

Both authors contributed equally to the development of this article.

Data availability

All datasets relevant to this study's findings are fully available within the article.

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