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The role of destination carrying capacity within the framework of flow theory

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Abstract

This study addresses the critical relationship between tourist destination carrying capacity and flow theory. In this way, a framework has been drawn by focusing on its complex impact on sustainable destination management. Tourism carrying capacity, defined as the maximum number of tourists that a destination can accommodate without compromising environmental integrity, the well-being of local people or visitor satisfaction, is of central importance in ensuring long-term sustainability. At the same time, flow theory, which defines the state of commitment and satisfaction experienced by individuals, provides an important framework for improving the quality of tourist experiences. This article argues that balancing the carrying capacity of a destination with the principles of flow theory is vital for both environmental sustainability and high-quality visitor experiences. Although issues related to carrying capacity are frequently studied, providing a perspective within the framework of flow theory can provide a better understanding of the existing realities of destination management mechanisms. In this context, the originality of this study is that the literature is examined from a theoretical perspective and the problems related to carrying capacity management are explained from different perspectives. As a result of the theoretical findings, managerial and theoretical suggestions are presented.

Keywords: *Destination carrying capacity, Flow theory, Sustainable tourism*

1. Introduction

Today, the tourism industry has become one of the major contributors to the global economy and also focuses on destination management and sustainability issues (Camisón, 2020). According to this view, the relative carrying capacity for a tourism destination represents a critical concept that must be addressed in order to avoid over-exploitation of the natural or cultural resources provided in the destination under discussion (Marsiglio, 2017). It is counted as the number of tourists that a destination can accommodate in a given period of time at an acceptable environmental, social and economic level. This is considered a very important concept when designing a sustainable tourism policy and directly affects the quality of tourism experiences (Guo et al., 2019).

While incorporating flow theory, a significant theoretical framework for comprehending and handling tourism experiences, the concept provides an alternative viewpoint on strategies for managing destinations. Developed by Mihaly Csikszentmihalyi, flow theory refers to moments when human beings are totally involved in an activity to the point of receiving a heightened sense of engagement and satisfaction with the activity (Csikszentmihalyi, 1988). Together, these theories expound on the depth of visitors' experience in a destination, satisfaction from the experience, and, in a way, state the rationality behind many things (da Silva deMatos et al., 2021). However, the intensity of tourists' flow in a destination can be directly related to the carrying capacity of the place. If the existing capacity is surpassed, then overcrowding, destruction of the environment, and a decrease in quality of service may set in to greatly weaken the flow state and decrease satisfaction among tourists (Hugo, 2020). Beyond the bound of capacity, there is also a menace to the existence of destinations. On the other hand, degradation within the environment, conflicts between the locals and tourists, and diminishments on the returns accrued from tourism might have harmful impacts on attractive destinations and in the willingness of the tourists to revisit (Lam-González et al., 2022). Lifecycle theory is, therefore, very important in developing a relationship between the two carrying capacities and flow theory, important for sustainable management of destinations so as to enable tourists to have satisfying experiences.

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In this study, carrying capacity issues were discussed theoretically within the framework of flow theory. Theoretically, the focus is on how exceeding the carrying capacity will affect flow experiences on the part of tourists and what that means for destination management. Additionally, the study poses the question of how carrying capacity could be optimized so that intense flow experiences are achieved by tourists and the implications that hold for destinations in terms of sustainability. Thus, theoretically, this work tries to address how carrying capacity at the destination touches on the tourism experience and, consequently, flow theory. Proper identification and management of the carrying capacity in management of destinations would contribute greatly to maximizing the flow experience of tourists and the sustainability of the destination. As argued by the findings of the study, carrying capacity is vitally critical in tourism management and should further not be exceeded, thus also presenting the strategic framework for long-term success of tourism destinations.

2. Conceptual framework Flow theory

Flow theory, proposed by Csikszentmihalyi in 1975, refers to the amount of complete engagement and involvement an individual undergoes during activities (Csikszentmihalyi, 1988). As suggested by Csikszentmihalyi, (1988); Xu & Zhao, (2019), flow theory theorizes that the state of flow can be achieved upon attaining a point in carrying out a task that entails complete absorption and deep involvement of an individual with its execution and outcome. It is a state in which there exists a perfect fit between the difficulties perceived in the activity and the skills possessed by the individual, leading to the occurrence of effortless action and high concentration (Harris et al., 2023; Henry et al., 2002)

Flow theory builds its assumptions on the conditions provided, where there are clear goals and immediate performance feedback through which individuals take corrective action in an effort to maintain a flow state (Hohnemann et al., 2022). Also, as per the theory, during the state of flow, it is said that individuals tend to lose self-awareness, time is distorted, and they are completely absorbed in the activity they are involved in (Cao et al., 2007). A further basic assumption is that the occurrence of flow comes along with an accordance of the challenges of the task to the skills of the person, whereby there is created a sense of cohesion and commitment. (Engeser & Rheinberg, 2008). Flow theory also argues that flow experiences are even capable of increasing intrinsic motivation, elevating performance levels and providing fulfillment. It further elaborates the flow as a universal existence that slashes across all cultural and demographic sections and can be experienced in a range of activities and contexts. All in all, flow theory is able to supply a good background for human experiences and further the particular circumstances under which task and activity satisfaction through getting involved deep into activity is enhanced.

Various fields have shown interest in flow theory. For example, Yan (2023) examined the benefits of flow and its underlying neural mechanisms. Santos et al. (2018) assessed the significance of flow theory within educational systems, focusing on aspects like learning experiences, motivation, and engagement. In the business sector, flow theory has been utilized in areas such as interactive mobile ad design to gain insights into user behavior and virality (Chen & Tang, 2023). It has also played a crucial role in knowledge sharing among online workers, emphasizing its relevance in knowledge management (Lin & Joe, 2011). Moreover, flow has been analyzed from various technological angles. For instance, Yang and Lee (2017) explored the relationship between flow theory and user acceptance of streaming media devices, aiming to identify links between flow, perceived usefulness, and product features. Additionally, this research examined the effects of challenge-based gamification programs on students' learning outcomes, highlighting impacts on both motivation and academic performance (Kaya & Erçağ, 2023).

Another important theoretical framework within the domain of tourism research has been flow theory, which explains how tourist behaviors and experiences work under the context of tourism. Many researchers have applied flow theory to various aspects of tourism, such as understanding spatial, temporal, and behavioral dimensions of tourism flows. Many studies have focused on analyzing the evolution and characteristics of inbound tourism flows in various regions. They do this through methodologies that range from econometrics to spatial analysis and predictive modeling (Dou, 2022; Jun, 2017; Shao-wen & Du, 2021). Another research was done to investigate the spatial structure and economic impacts of virtual tourism flows (Tu et al., 2021). This study examined the spatial variation and dynamic mechanisms of the tourism flows. Gu et al. (2023) combined digital footprints with deep learning techniques in an effort to predict urban tourism flows by understanding how tourist sources interacted with destinations. Another is the linkage of competitiveness of cultural tourism industry to tourism flow as a factor to analyze coordination, to highlight the interaction between the dynamics of the industry and tourist behavior (Shao-wen & Du, 2021). In addition, research has been done to assess the effects of tourism e-commerce livestreaming features on consumer purchase intentions and attempts to explain how, through the mediating roles of streaming experience

and trust, they affect consumer behavior (Liu et al., 2022).

It has further been used to assess sustainability for urban tourism and low-carbon tourism research and even in developing models of tourism competition (Lan & Li-ming, 2013; Z. Wang & Pei, 2014). All these usages prove its versatility in tackling contemporary problems relevant to the tourism sector. Combining flow theory with these diverse fields of study helped researchers find out more about tourists' behavior, destination competitiveness, and sustainability of tourism practices.

Although flow theory has been widely adopted by researchers, it has also been criticized. Some researchers have argued that flow theory places too much emphasis on individual experiences or internal states. There are views that it ignores broader social or contextual factors that may influence the flow experience. These criticisms suggest that the theory does not sufficiently take into account external influences such as social interactions and cultural environment that may play a role in flow (Santos et al., 2015). In addition, some researchers also criticize the universality of the theory, as they argue that flow theory may not be equally relevant or effective for all societies, cultures and activities (Moneta, 2004). This perspective challenges the notion of a 'one-size-fits-all' approach to understanding flow experiences and highlights the need for a more contextualized understanding that takes into account different contexts and individuals (Hattingh et al., 2014). From another perspective, there have also been criticisms of the operationalization and measurement of flow. Some researchers argue that the experience of flow is subjective and retrospective assessments can be unreliable. Self-report measures may contain biases and inaccuracies that can potentially reduce the validity of research findings based on flow theory (Weber et al., 2009). Another piece of research examined the utility of flow theory in explaining online consumer behavior and pointed out probable limitations in applying it to a variety of Internet-based experiences (Mathwick & Rigdon, 2004). In spite of all these arguments, the very fundamentals of the flow theory go on defining the research and understanding in different fields, and its potential cannot be overlooked.

3. Destination Carrying Capacity

The carrying capacity for a destination refers to the maximum number of tourists beyond which the negative impacts on the environment, local communities, and/or the satisfaction levels among the travelers are not tolerable (Adam, 2024; Marsiglio, 2017; C. Yang et al., 2021). It refers to the process of capacity management that makes the best decision so that the destination is kept sustainable in consideration of several aspects, including physical, sociocultural, and economic factors (Candia et al., 2020; Putri & Ansari, 2021). In doing so, carrying capacity manages tourism growth in attempts to avoid problems associated with overtourism or overcrowding (Bardhan, 2024; Telišman-Košuta & Ivandić, 2021). Effective Carrying Capacity is the maximum number of visits that a destination can support while the destination still operates at the management capacity status level (Wati, 2023). Carrying capacity in this area involves psychological migration, which is the satisfaction of the visitors with the destination under discussion (Pektaş, 2023).

Carrying capacity assessments imply the estimation of the so-called environmental footprint, destination dependency on tourism, and the wellbeing of the local people in order to project the sustainability of a destination (Glyptou et al., 2022). Hence, the carrying capacity assessment shall put into consideration the perception of the residents and visitors if the destination management has to do with issues such as overcrowding, as well put by Telišman-Košuta & Ivandić, 2021. Based on the United Nations World Tourism Organization, carrying capacity refers to the highest number of visitors that can be accommodated at a destination without causing physical, economic, and socio-cultural discourteous features of the area to be overextended (Wahyuningputri, 2012). Carrying capacity is evaluated using a key tool that outlines the planned management and growth of sustainable tourism (Zacarias et al., 2011).

A study on carrying capacity modeling in Fruška Gora National Park in Serbia emphasized the significance of zoning in a region to assess carrying capacity for individual services and facilities (Vujko et al., 2017). This method enables a more nuanced evaluation of the capacity of specific areas within a destination, facilitating targeted management strategies that enhance visitor experiences while safeguarding the environment. Additionally, the dynamic tax model for sustainable tourism development, based on the destination life cycle, offers a practical way to identify the optimal level of taxation that maximizes the output of the tourism industry while ensuring that destinations do not surpass their carrying capacity (Yang et al., 2021). By integrating economic factors into carrying capacity assessments, this model provides insights on how fiscal policies can be harmonized with sustainable tourism practices to promote long-term sustainability.

One of the main issues concerning carrying capacity in tourist destinations is its determination. This measurement is considered as one of the cardinal activities of sustainable tourism management at a

destination, ensuring it does not surpass the limit which it can support without consequential degradations to the environment, local communities, and visitor experiences. Literature review evidences methodologies and approaches used in measuring carrying capacity in various tourism destinations. One way of measuring carrying capacity is the Effective Carrying Capacity, which is defined as the maximum number of visits a destination is able to sustain while remaining within its management capacity level (Wati, 2023).. The concept refers to the state of balance between visitor numbers and that of the destination ability to manage and support these numbers of visitors satisfactorily. Effective Carrying Capacity thus offers destination managers the possibility of being involved in the decision-making process by setting threshold guidelines on the number of visitors compatible with sustainable practices and resource management (J. Wang et al., 2020)

Another way is determining the carrying capacity by assessing the physical, sociocultural, and economic features of a destination. Studies like the assessment of the marine tourism carrying capacity at Kapas Island Marine Park in Malaysia highlight the need to evaluate the physical, sociocultural, and economic sustainability of a destination to determine the maximum number of tourists it can support without compromising these aspects (Adam, 2024). By taking these factors into account, destination managers can develop effective strategies that balance tourism activities with environmental conservation.

In addition to physical and economic factors, social carrying capacity is a vital aspect in determining destination carrying capacity. Research on collaborative destination management based on carrying capacity assessment from the perspectives of local residents and visitors reveals that it is crucial to consider social aspects in carrying capacity assessments (Telišman-Košuta & Ivandić, 2021). By incorporating the views and perceptions of both residents and visitors, destination managers can gain a comprehensive understanding of the social impacts of tourism activities and adjust their strategies accordingly.

Computation of carrying capacity gives the destination management lots of benefits, hence making significant inputs to sustainable tourism development (Marsiglio, 2017). Through carrying capacity assessments, destination managers can make informed decisions and implement strategies for the optimization of visitors' experiences with protection to the environment and local communities (Llausàsa et al., 2019). There are plenty of studies in the literature supporting the advantages brought about by determining destination carrying capacity for effective destination management. On these grounds, carrying capacity assessments allow destination managers to include various stakeholders, residents, and tourists in the decision-making process while ensuring that all activities related to tourism remain within the sustainable limits and are focused on the long-term prosperity of the destination. According to Griffin & Edwards (2012), importance-performance analysis is another diagnostic tool available for managers in urban destinations. In using a diagnostic approach, the manager is better placed to identify problems that may have hitherto gone unacknowledged and thus proceed to address them in an attempt to enhance tourist experiences. The carrying capacity would direct the destination manager to improve those vital elements responsible for satisfying visitors and thus, accordingly, the attractiveness of the destination (Haraldsson & Ólafsdóttir, 2018).

Conceptual Fit of Flow Theory and Carrying Capacity

The underlying relationship relating destination carrying capacity to flow theory is how tourism management practices will enhance or deteriorate the quality of visitor experiences. Flow theory, has something to do with the optimal psychological state of deep engagement and enjoyment that people experience when they are fully absorbed in an activity (Weber et al., 2009). This theory has deep implications for tourism by virtue of the fact that it is often the objective to create conditions through which other tourists can experience a sensation of flow. The creation of flow experiences in the condition of tourism settings comes wholly intertwined with the management of destination carrying capacity (Sati, 2018). The sustainability of the flow experiences is directly related to the carrying capacity of a destination, which refers to the proper number of visitors a site should hold without being compromised in order to avoid unacceptable change in the environment, local setting, and the visitor's psyche.

Destination carrying capacity becomes conceptual each time the theories of flow are referred or connected to. Thus, according to the flow theory, people are in a state of flow just about when the difficulty of a task is about equal to their abilities in seeking to undertake that task. This is also related to the carrying capacity of the destination, which balances itself to ensure that the destination maintains the balance in relation to the number of visitors (Wang et al., 2020). Imbalances resulting from when a destination has been overrun in terms of visitation capacity disrupt flow conditions. This might lead to a destruction of the destination by lowering visitor satisfaction (Jarvis et al., 2016). The concurrence of these concepts brings to mind that such a destination must be managed in a manner through

which the balance—so crucial to the visitor experience—is maintained. That balance is thus paramount not only for the psychological well-being of the visitor but also for the long-term management of a tourism site in a sustainable way. This ensures the maintaining of the carrying capacity, hence the visitors' full interaction with their environment and activities within; this facilitates the potential for flow.

Visitor Experience and Flow

In fact, one of the main factors by which carrying capacity at a destination affects flow experiences is through experience quality of the visitors (Saveriades, 2000). For inducing flow state in the tourists, they must be able to engage themselves with the activities and surroundings, with much less distraction and sustenance. The next level of flow is most often broken when the number of people is overwhelming at a destination or the natural environment has been ruined from overuse. Too much utilization can easily result in long queues, overly packed attractions, and a feeling of general chaos and all qualities far removed from flow (Cros, 2008). It is also a source of social stress and reduces personal space, both of which are large enough to act as barriers to flow. When tourists are unable to find any quiet corner or a secluded spot where they could sit and relax to enjoy the surroundings, the flow is unlikely to reach deep levels of concentration and engagement. This indicates that strict visitors management is crucial as it equally necessary to avoid blowing a destination's carrying capacity. Tourism professions have to make sure that the setting that has been availed provides an enabling environment to concentrate fully on experiences without a lot of background clatter (Butler, 1991).

Instead of just regulating the number of people allowed into a destination, management should also make sure that a destination is devoid of a certain type of activity. The activities in destinations should range across all levels of difficulty so that the tourist is free to choose the one at which the correct balance between challenge and skill can be obtained (Buckley, 2007; Tsaur et al., 2013). While it does make the opportunity for flow more likely to happen for visitors, it helps to reduce the potential that a place will ever be over-visited and overcrowded by spreading these numbers throughout a site.

Environmental and Psychological Carrying Capacities within the framework of flow theory

Destination carrying capacity and flow theory interrelate on environmental and psychological carrying capacities (Y. Wang et al., 2021). The environmental carrying capacity refers to the maximum degree of visitor use that an area's physical environment can sustain before degradation starts to occur (Marion, 2016). The psychological carrying capacity, on the other hand, refers to the degree of visitor use above which the quality of the visitor's experience begins to deteriorate because of crowding, noise, and other related factors (Schreyer & Roggenbuck, 1978).

It follows that both the environmental and the psychological carrying capacities become very important in being able to facilitate flow experiences. Indeed, a well-maintained environment is usually an essential ingredient for the attainment of flow because of the enhanced aesthetic and sensory stimuli provided by the setting, which would increase the degree of immersion and engagement for the visitor (Gössling & Hall, 2006). Where, in the case of the visitor, it would be pristine natural landscapes and wildlife in undamaged ecosystems that enable him to connect himself with his surroundings more deeply, making the achievement of a state of flow easier (Simón et al., 2004). However, as mentioned above, when the environmental carrying capacity is overshot, degradation through litter, erosion, and habitat damage can make the destination less beautiful and hence take away from the potential for flow.

Closely associated with this is the concept of psychological carrying capacity, which is closely related to the conditions required for flow. If the destination is too crowded or noisy, concentration or relaxation requirements for visitors reaching a flow state are difficult (M. J. Kim & Hall, 2019). Perception of overcrowding may trigger feelings of stress and frustration that are quite opposite in nature to the positive emotions linked with flow. This would create flow experiences with respect to the management of psychological carrying capacity, by regulating the number of visitors and access to quiet and uncrowded spaces.

Sustainable Tourism and Flow

The concept of carrying capacity at destination locations and flow theory go hand in hand with the idea of sustainable tourism. In other words, sustainable tourism satisfies the needs of tourists, the environment, and local communities in such a manner that tourism development does not encroach upon the right of future generations to have the same destinations available for their enjoyment (Butler, 1991). Balance is also central in the achievement of flow since it calls for harmonious interaction between the tourist and his or her environment.

Tourism professionals strive to manage tourist destinations on a sustainable level, contributing to the preservation of both the environmental and social conditions that support the flow (Camisón, 2020).

Sustainable tourism goes far beyond simply controlling visitor numbers. It also consists of a wide range of efforts that include practices that reduce environmental impacts, such as waste reduction, energy conservation and habitat protection (Buckley, 2012). This includes other sustainable tourism practices such as engaging local communities to ensure that tourism development is in line with their needs and values. Destinations can enhance the visitor experience through good relations with local communities and thus increase the likelihood of tourists reaching a destination stream. Another factor related to the destination carrying capacity and flow theory relationship is economic sustainability. Economic sustainability means that tourism entails long-term economic benefits for the destination, not resulting in any negative economic impacts, such as as inflation or dependency on tourism (Nepal et al., 2019). Through economically sustainable tourism practices, a destination is able to ensure that the place will remain attractive and viable for future generations and, as such, continue to offer opportunities for flow experiences.

The Role of Tourism Management

Tourism management mainly plays a significant role in ensuring the balance of carrying capacity at destinations and creating flow experiences (Massiani & Santoro, 2012). Effective tourism management involves not only monitoring and controlling numbers but designing strategies to improve overall visitor experiences (Kuo, 2002). This could be in the form of destination information provision, making visitors more aware of their potentials to cause impacts, and giving them advice on how to approach the destination for a flowexperience.

Visitor management plans are another prominent aspect of tourism management. These would be tailored specifically with respect to the specific needs and characteristics that the destination presents. Such plans must be informed by an understanding of the environmental, social, and psychological carrying capacities of the destination and explicitly avoid overcrowding, reduce impacts on the environment, and improve visitor satisfaction (Guiver & Stanford, 2014). Strategies for dispersal of visitors around the destination, encouraging visits outside the peak season, and encouragement of less popular but equally rewarding activities are some examples of how visitor management plans might address these concerns (Kozak & Martin, 2012). Attention should also be focused on monitoring and evaluating the tourist experience, which is a key aspect of visitor management. Tourism managers can collect information about visitor satisfaction, flow experiences, and perceptions of crowding to identify any problems and take remedial action (Ruiz et al., 2021). Remedial actions could include adjustment to numbers, redesign of activities, or infrastructureimprovement.

Flow Theory and Recreational Carrying Capacity in Protected Natural Areas

Of particular relevance in this context of protected natural areas management is the relationship between flow theory and the concept of recreational carrying capacity (Vigl et al., 2017). While carrying capacity is an important idea in tourist destinations, tourism activities are not to be forgotten as a type of recreational activity. These areas of recreation often attract, through tourism, people who most often visit such places, apart from the tourists who are bound to come if the areas are well managed in the long run. For this reason, knowledge about the carrying capacity of recreational areas is very important for sustainable development and to take the relevant managerial decisions (Ajuhari et al., 2023). In this respect, studying carrying capacity and flow theory is gaining extremely high importance. Against this backdrop, this state of flow is often, within the context of tourism and recreation itself, achieved as a basic goal by both the visitors and the natural area managers.

Recreational carrying capacity is the maximum number of visitors that a natural area can hold without leading to the occurrence of unacceptable ecological, social, or psychological impacts (Wang, 1996). There is one vital concept in the management of a protected natural area that comes to mind: the balance between conservation of the natural resources and human enjoyment (Sturiale et al., 2020). Flow theory is inextricably linked to recreational carrying capacity because when a natural area becomes overcrowded, exceeding the carrying capacity will eliminate the potential for flow among visitors. Under conditions such as overcrowding, noise and environmental degradation in a natural area, a visitor will have emotions such as stress, frustration or dissatisfaction that break the essential elements of flow experiences.

The carrying capacity of areas with natural resources should be considered in view of the critical limits, both ecologically and to create visitor experiences (Llausàsa et al., 2019). Managers would evaluate how various levels of visitation impact the environment and how such levels further impact on the quality of the visitor experience. This includes the evaluation of the visitor density, space available for solitude, the condition of the trails and facilities, and the atmosphere of the site. It follows from the above that there is an important relationship between flow theory and recreational carrying capacity in terms of ensuring the management of protected areas such that the environment is protected while also providing meaningful, satisfactory experiences to visitors (Vigl et al., 2017). Proper

identification and management of the carrying capacity help uphold conditions under which visitors would have the flow state, enhancing both visitor enjoyment and natural area sustainability (McCool & Lime, 2001).

4. Conclusions and recommendations

This paper discusses the applications of the flow theory across disciplines and its implications for tourist behavior in the context of tourism. Flow theory explains the intense focus and satisfaction of people when they are fully engaged in something. This flow in tourism could then enhance the attractiveness of a place and deepen the interest of tourists in their experience at a visiting destination, ensuring the sustainability of tourism and the competitiveness of the destinations (Knežević Cvelbar et al., 2016). Previous studies have indicated that flow experiences can heighten levels of satisfaction and trigger loyalty in tourists towards the tourist destinations as well (An et al., 2021; deMatos et al., 2024; M. Kim & Thapa, 2018). Furthermore, the study revealed that flow is a cross-cultural phenomenon and experienced similarly even after accounting for cultural and demographic differences (Saveriades, 2000). This explains that the flow experiences should ideally give competitive advantage to tourism destinations that offer such intense experiences to thevisitors.

The very fact that flow theory is focused only on individual experiences makes social and contextual factors evidently overlooked. In turn, this aspect of the approach has been criticized in the context of applied research (da Silva deMatos et al., 2021). It seems obvious that intensive complex social interactions, as is normally the case in tourism, require that the analysis should involve the dynamics of flow experiences in social contexts (deMatos et al., 2024). Thus, flow theory should be extended beyond individual focus and satisfaction to include tourists' social interactions and environmental factors.

In this regard, flow theory finds several uses applied to tourism research and practice. The utility of this obviously important tool is in understanding tourist behavior in the context of destination management strategies (Beritelli et al., 2020). Ironically, the more these applications proliferate and increase in number, the more yawns one can stifle at the ever apparent and obvious necessity of accounting for social or environmental contexts. From this theoretical study, it can be affirmed that flow theory applies to tourism and, like in other domains, is thus taken as a useful framework for fully optimizing tourist experiences. It would be possible for future research to consider such aspects of the theory in greater detail, for example, it could conduct an analysis of the social and contextual dimensions of flow.

It makes several significant contributions to an understanding of how flow theory operates within a tourism context. Flow theory refers to the state of complete absorption and heightened satisfaction which characterizes people's engagement in a particular activity (Beritelli et al., 2020). This study provides new insights into understanding the implications of the theory for tourist experiences. In particular, it discloses that flow is not only an individual experience but also socially and environmentally induced. By doing this, the finding extends the theory and makes it more applicable in the complex and dynamic tourism field.

As conclusion in this study it can be suggest that future studies on flow theory need to address not only issues about experiences of people, but also how these experiences are influenced by social and cultural contexts. In turn, this means a broader framework is required for flow theory and analysis that goes beyond a focus on the individual to include social interactions and environmental features. It thus places this finding as an emphasis on the need to consider the theory from a broader perspective in tourism research. From the managerial perspective, this study has highlighted the maximization of flow experiences for increasing competitive advantages among tourism destinations. Destination management strategies should be formulated in ways that facilitate the creation of flow experiences to raise tourists' interest in visiting a destination and their level of satisfaction. The provision of such activities or experiences where tourists feel intense focus and gratification will be added advantages to destinations. Furthermore, destination management has to take into account factors influencing the flow experiences related to social and environmental settings. In this line, destinations should develop strategies oriented to offer tourists possibilities of obtaining richer and more complete tourist experiences in social contexts. For example, events that favor interactions with the local culture or environments that facilitate social interactions can deepen the flow experiences of tourists, entailing an increase in destination loyalty.

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