



Metaverse in Tourism and Hospitality Research – A Systematic Literature Review

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Abstract

This research paper consolidates the current literature on the convergence of the Metaverse, Tourism, and the Hospitality sector. Using a systematic literature review guided by the PRISMA framework, the study thoroughly examined 137 papers from the Scopus Database, eventually selecting 22 relevant sources. A content analysis was used to investigate the subtle details of studies connected to the Metaverse in the context of tourism. The study revealed that there was a strong emphasis on conceptual and qualitative approaches, which indicates that the integration of the Metaverse in these businesses is still in its early stages. The findings notably emphasise a lack of research in essential sub-domains such as MICE (Meetings, Incentives, Conferences, and Exhibitions), cultural heritage, and tourism marketing. This highlights the necessity for additional exploration and empirical research in these domains to fully comprehend the diverse influence of the Metaverse on the tourist and hospitality industry. This research enhances our understanding of the changing interactions between the Metaverse and traditional sectors, providing valuable insights for academic researchers and industry professionals.

Keywords: Tourism, Metaverse, Hospitality, Review, SLR

1. Introduction

The word “Metaverse” was first coined by Neal Stephenson in his science fiction novel *Snow Crash* in the early 1990s (Buhalis, Leung, et al., 2023). The term “Metaverse” is a combination of the words “meta” and “universe” (Aburbeian et al., 2022; Koo et al., 2022). It describes “a three-dimensional virtual world where avatars participate in political, economic, social, and cultural activities” (Park & Kim, 2022, p. 4211). The Metaverse is

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“a vast and interconnected network of 3D virtual worlds rendered in real time. It allows unlimited users to experience these worlds simultaneously and continuously, giving them a strong sense of presence.” The Metaverse also ensures that data, including identity, history, entitlements, objects, communications, and payments, is seamlessly maintained across these virtual worlds (Ball, 2022; Dwivedi et al., 2023). The use of Metaverse applications in many sectors, such as education, healthcare, media and entertainment, tourism and hospitality, and retail, is rapidly increasing. In addition, the Metaverse market revenue is projected to reach a value of over 900 billion dollars by the year 2030 (Metaverse Market Report Scope, 2024).

The initial progress in the Metaverse primarily occurred within the gaming industry (Hollensen et al., 2023), which accounted for approximately 27% of the revenue share in 2022 (Metaverse Market Report Scope, 2024). Nevertheless, prominent retail corporations have also begun to promote their business ventures in the Metaverse. Nike introduced their brand “Nikeland” on Roblox, a Metaverse gaming platform with a daily user base of 47 million (Hollensen et al., 2023). Furthermore, Apple Inc. and Meta Platforms Inc. created Advanced Immersive head-mounted devices (HMDs) called Apple Vision Pro and Quest 3, respectively, to offer users immersive experiences. Besides, Apple Inc. developed the world’s first spatial operating system, VisionOS (Vision Pro, 2023). Additionally, Qatar Airways has introduced a virtual reality (VR) experience called QVerse, which enables travellers to observe the aircraft interiors, business class cabins, and the VIP check-in area at Hamad International Airport (What Is the Metaverse? 2022).

Metaverse has become an exciting study area for researchers from various fields since 2020. Due to immersive technology’s technological characteristics, most Metaverse studies have been conducted within the computer science and engineering domains (Firmansyah & Umar, 2023). Nonetheless, several studies were conducted in service industries as well, such as education (Díaz et al., 2020; Hwang & Chien, 2022; Kye et al., 2021; Tlili et al., 2022), healthcare (Aloqaily et al., 2023; Chengoden et al., 2023; D. Yang et al., 2022), marketing (Dwivedi et al., 2023; Eric Hazan et al., 2022; Hollensen et al., 2023; Sánchez-Amboage et al., 2023), and financial services (Bisht et al., 2022).

Researchers have made a few attempts to review the literature on the Metaverse and the concerned field. Tlili et al., (2022) conducted a combined content and bibliometric analysis to understand the opportunities and challenges of the Metaverse in the education sector. In comparison, Alfaisal et al., (2022) evaluated the scope of the Metaverse in the education sector from the Information Systems Model (IS) perspective. In retail, Shen et al., (2021) synthesised the literature on consumer behaviour and proposed a conceptual application design for virtual commerce. Volchek & Brysch (2023), in their

conference paper, used a semi-systematic literature review to identify critical dimensions of tourism in the Metaverse, namely “Satisfaction of needs, Destination, Ecosystem and Escape.” Another review in the tourism and hospitality domain was of Kouroupi & Metaxas (2023). This paper explained the role of the Metaverse in mitigating over-tourism. However, these studies did not provide a holistic view of the use of Metaverse in tourism and hospitality. Besides, to the best of the authors’ knowledge, no past research on the Metaverse and tourism segments exists. Furthermore, it is crucial to comprehend the current advancements of the Metaverse’s participation in research related to tourism and hospitality.

This study makes several significant contributions to the existing body of literature. The current study assesses scholarly research on the Metaverse from the tourism and hospitality business viewpoint. It examines the latest advancements in connecting Metaverse technology with various aspects of tourism. Furthermore, this present study offers a pathway for forthcoming research by reviewing the prevailing pattern of Metaverse research, mainly focusing on the research methodologies and types. Furthermore, our research systematically outlines the existing Metaverse-tourism studies by analysing their tourism segments, thereby identifying the areas requiring further investigation. Our work can aid academia by offering a thorough depiction of Metaverse literature as observed via the lens of tourism segments. Therefore, the present study aims to address the following research inquiries: First, what are the most recent advancements in Metaverse research within the field of tourism and hospitality? Secondly, what research methodologies, types, and tourism segments were employed in prior Metaverse studies on tourism and hospitality?

The content of this paper is organised into four distinct sections. The introduction section elucidates this work’s context, research gap, and objectives. Subsequently, the methodology section presents a concise overview of the research design, the data-gathering process, and the PRISMA framework’s application for data filtering. This study’s results and discussion section provides a detailed representation of the findings obtained from the systematic literature review and content analysis. The conclusion section of the document encompasses the final remarks, limitations, and ramifications.

2. Methodology

This article explores how the Metaverse indulges in tourism and hospitality research. In carrying this out, this study performed a literature screening and literature review protocol based on “Preferred Reporting Items for Systematic Reviews and Meta-Analyses” (PRISMA) (Liberati et al., 2009; Page et al., 2021). PRISMA guidelines are broadly used by tourism and hospitality academia in review articles for a systematic and rigorous

investigation (Dube et al., 2023; Rahmadian et al., 2022). The study also analyzed content to identify the research methods, types, and tourism segments (tourism management, museum management, MICE, hospitality management) (Firmansyah & Umar, 2023; T & P. S., 2023).

This study employs a systematic literature review to analyze state-of-the-art research in the Metaverse and tourism and hospitality. Authors used SCOPUS as their data source since it is widely popular and recognised among researchers (Mongeon & Paul-Hus, 2016). It is also commonly used in tourism and hospitality research (Ng, 2022; Sánchez et al., 2017). SCOPUS database, owned by Elsevier and launched in 2004, comprises more than 5000 international journals in various disciplines, including Business, Management, and accounting (Singh et al., 2021). Furthermore, earlier studies have also been carried out solely with the SCOPUS database (Firmansyah & Umar, 2023).

The authors developed a set of keywords to gather the data, considering the necessity of fetching all the records related to the study area. Therefore, the subsequent search query was employed: (TITLE-ABS-KEY (Metaverse) AND TITLE-ABS-KEY (tour*) OR TITLE-ABS-KEY (Hospitality OR accommodation OR stay OR hotel) OR TITLE-ABS-KEY (travel)). As of 15 December 2024, this search query yielded one hundred thirty-seven (137) documents before applying any exclusion criteria. Primarily, the authors decided to analyze the documents in the English language. English language filtering (LIMIT-TO (LANGUAGE, "English")) removed three papers from the search list (One each in Chinese, Portuguese, and Spanish) and left 134 documents. This search result unequivocally demonstrates the early stage of Metaverse Research in the tourism and hospitality field.

A more specific filtering process was carried out to narrow the scope of this study to Metaverse, tourism, and hospitality management. This involved selecting documents under the subject areas of 'Business, Management and Accounting', 'Computer Science', 'Economics, Econometrics and Finance', 'Social Sciences', 'Arts and Humanities', 'Psychology', and 'Multidisciplinary'. These shortlisted documents were then subjected to further scrutiny. The study eliminated all subject areas of science and technology as they were beyond the scope of the study (e.g., mathematics and engineering). Eighty-one documents were retained after this stage for the next level of screening. Research documents on tourism across disciplines showcase the interdisciplinary nature of the domain. Interdisciplinary techniques entail the utilisation of two or more disciplines in a dynamic manner to elucidate, examine, and comprehend the intricacy of the tourism phenomenon. It examines tourism from multiple disciplinary perspectives rather than just one (Darbellay & Stock, 2012). This analysis excludes book chapters, conference papers, and editorials.

An extensive evaluation of abstracts and full papers was conducted on 41 research articles and seven review papers. Duplicate articles and those unrelated to the study field, such as climate change and marine reconstruction, were omitted from the review. This study exclusively encompasses readily available documents, including abstracts and full papers. Therefore, documents that the authors did not have access to are excluded from the review. In the end, 22 eligible documents were selected for the final study. Figure 1 explains the document selection process based on the PRISMA framework (Page et al., 2021)

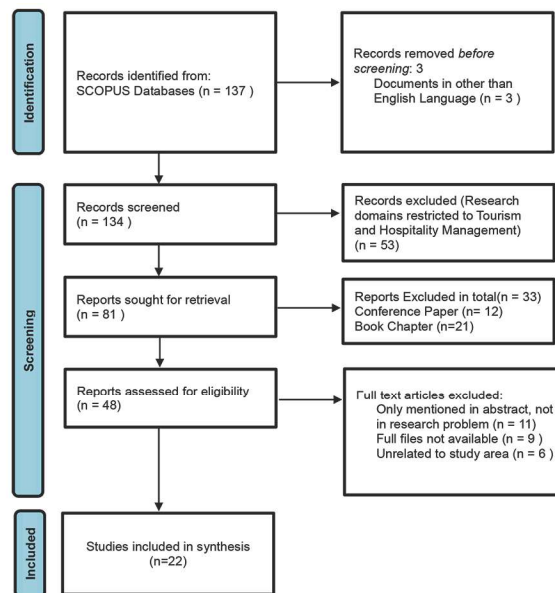


Figure 1: PRISMA Flow Diagram of Document Selection Process

3. Results and Discussion

The authors individually assessed each of the 22 selected documents and compiled a summary (see Table 1). The whole table is arranged in descending order depending on the number of citations, with all the necessary information in each column. Furthermore, the summary encompasses the data extracted from each document (Research method, document type, tourism functional area, and publisher) for content analysis, which serves as the second level of review in this study (Firmansyah & Umar, 2023). The following fields of the study outline the essential sections of Table 1.

Table 1: Summary of Publications (Source: Authors' own work)

Author/s	Title	Research Method	Study Type	Tourism Segment	Citation count
"Gursoy D.; Malodia S.; Dhir A. (2022)"	"The Metaverse in the Hospitality and Tourism industry: An overview of current trends and future research directions"	Qualitative	Conceptual	Tourism Management	151
"Buhalis D.; Lin M.S.; Leung D. (2023)"	"Metaverse as a driver for customer experience and value co-creation: implications for Hospitality and Tourism management and marketing"	Qualitative	Conceptual	Hospitality	114
"Buhalis D.; Leung D.; Lin M. (2023)"	"Metaverse as a disruptive technology revolutionising Tourism management and marketing"	Qualitative	Conceptual	Tourism Management	113
"Koohang A.; Nord J.H.; Ooi K.-B.; Tan G.W.-H.; Al-Emran M.; Aw E.C.-X.; Baabdullah A.M.; Buhalis D.; Cham T.-H.; Dennis C.; Dutot V.; Dwivedi Y.K.; Hughes L.; Mogaji E.; Pandey N.; Phau I.; Raman R.; Sharma A.; Sigala M.; Ueno A.; Wong L.-W. (2023)"	"Shaping the Metaverse into Reality: A Holistic Multidisciplinary Understanding of Opportunities, Challenges, and Avenues for Future Investigation"	Qualitative	Conceptual	Tourism Management	94

"Buhalis D.; O'Connor P.; Leung R. (2023)"	"Smart Hospitality: from smart cities and smart Tourism towards agile business ecosystems in networked destinations"	Qualitative	Conceptual	Hospitality	53
"Go H.; Kang M. (2023)"	"Metaverse Tourism for sustainable Tourism development: Tourism Agenda 2030"	Qualitative	Conceptual	Tourism Management	41
"Zhang X.; Yang D.; Yow C.H.; Huang L.; Wu X.; Huang X.; Guo J.; Zhou S.; Cai Y. (2022)"	"Metaverse for Cultural Heritage"	Qualitative	Conceptual	Tourism Management	19
"Doyle D.; Kim T. (2007)"	"Embodied narrative: The virtual nomad and the meta dreamer"	Qualitative	Conceptual	Tourism Management	13
"Lin K.J.; Ye H.; Law R. (2023)"	"Understanding the development of blockchain-empowered Metaverse Tourism: an institutional perspective"	Qualitative	Empirical	Tourism Management	2
"Ioannidis S.; Kontis A.-P. (2023)"	"Metaverse for tourists and Tourism destinations"	Qualitative	Conceptual	Tourism Management	1
"Jo H. (Jo, 2023)"	"Tourism in the digital frontier: a study on user continuance intention in the Metaverse"	Quantitative	Empirical	Tourism Management	1
"Dutta D.; Srivastava Y.; Singh E. (2023)"	"Metaverse in the Tourism sector for talent management: a technology in practice lens"	Qualitative	Empirical	Tourism Management	1

"Corne A.; Massot V.; Merasli S. (2023)"	"The determinants of the adoption of blockchain technology in the Tourism sector and Metaverse perspectives"	Quantitative	Empirical	Tourism Management	1
"Fazio G.; Fricano S.; Iannolino S.; Pirrone C. (2023)"	"Metaverse and Tourism development: issues and opportunities in stakeholders' perception"	Mixed	Empirical	Destination Management	0
"Gao Z.; Braud T. (2023)"	"VR-driven museum opportunities: digitised archives in the age of the Metaverse"	Qualitative	Conceptual	Museum Management	0
"Huang X.-T.; Wang J.; Wang Z.; Wang L.; Cheng C. (2023)"	"Experimental study on the influence of virtual Tourism spatial situation on the tourists' temperature comfort in the context of Metaverse"	Mixed	Empirical	Tourism Management	0
"Jung T.; Cho J.; Han D.-I.D.; Ahn S.J.G.; Gupta M.; Das G.; Heo C.Y.; Loureiro S.M.C.; Sigala M.; Trunfio M.; Taylor A.; tom Dieck M.C. (2024)"	"Metaverse for service industries: Future applications, opportunities, challenges and research directions"	Qualitative	Conceptual	Tourism Management and Hospitality	0
"Chu C.-H. (2023)"	"Deep resource allocation for a massively multiplayer online finance of Tourism gamification in Metaverse"	Qualitative	Conceptual	Tourism Management	0

"Sánchez-Amboage E.; Enrique Membiela-Pollán M.; Martínez-Fernández V.-A.; Molinillo S.(2023)"	"Tourism marketing in a Metaverse context: the new reality of European museums on meta"	Qualitative	Empirical	Museum Management	0
"Ud Din I.; Almogren A. (2023)"	"Exploring the psychological effects of Metaverse on mental health and well-being"	Qualitative	Empirical	Tourism Management	0
"Baker J.; Nam K.; Dutt C.S. (2023)"	"A user experience perspective on heritage Tourism in the Metaverse: Empirical evidence and design dilemmas for VR"	Qualitative	Empirical	Tourism Management	0
"Gursoy I.T.; Aktas E.; Tecim V.; Kurgun O.A. (2023)"	"Beta tourist world: a conceptual framework for organising an event in the Metaverse"	Qualitative	Conceptual	MICE	0

Year of Publication

Figure 2. highlights the publication of articles and reviews yearly. Surprisingly, the last decade (2010-2020) didn't produce any Metaverse, tourism and hospitality management documents for multiple reasons. One of the early articles in the study domain explored the relationship between real and virtual worlds (Doyle & Kim, 2007). Doyle and Kim (2007) explains the emergence of user-generated content and virtual worlds like Second Life, and at the same time, are concerned about the complexities of identity politics in virtual spaces. However, there has been a dramatic surge in Metaverse and tourism publications since 2022, and with 18 documents published in 2023.

On the contrary, immersive technologies such as virtual reality (VR) and augmented reality (AR) in tourism and hospitality research have been flourishing over the last two decades (Loureiro et al., 2020). Nonetheless, Figure 2 depicts the continual growth of academic interest in Metaverse, tourism and hospitality, especially after 2020. In the year 2021, the 'Metaverse'

keyword was trending in Google Trends search since the company Facebook rebranded to 'Meta' and announced their plan to invest in Metaverse research. Furthermore, another software giant, NVIDIA, revealed its plan to enter the Metaverse in the same year (Kim, 2021). In fact, the COVID-19 pandemic accelerated the technological developments in the Metaverse, generative AI, and artificial intelligence.

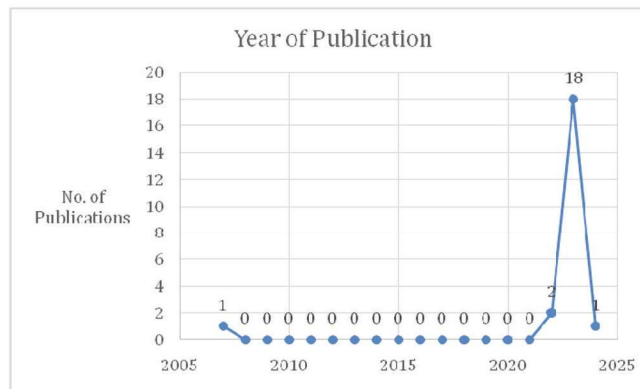


Figure 2: Year of Publication (Source: Authors' own work)

Document Type

This investigation was conducted using two sorts of documents: research articles and reviews. This guarantees the study's quality, as most research publications in international journals undergo a rigorous peer-review process before publication. Figure 3 shows that 86% of the documents fall under the journal article category, and review papers, contributing around 14%. The rise in research articles indicates the growing interest in the Metaverse for tourism and hospitality within academia.

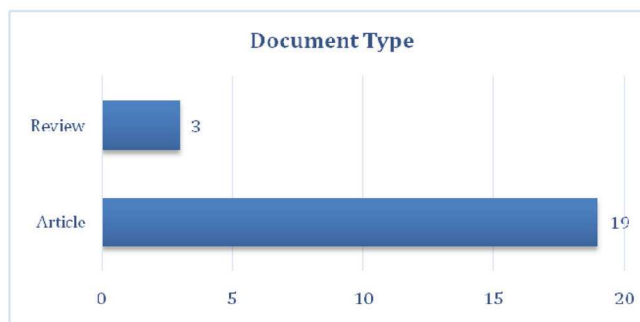


Figure 3: Document Type (Source: Authors' own work)

Journal

Table 2 illustrates the number of published works and the overall count of citations. The Journal of Information Technology and Tourism (JITT) published the most publications (10); all other journals published 22 documents altogether. It is intriguing that when it comes to the number of citations, the International Journal of Contemporary Hospitality Management (IJCHM), with only two publications related to the Metaverse, has the highest citations (167). However, the journal with the most publications has only six citations. This may be because of a higher impact factor of IJCHM (11.1 in 2022) than JITT (9.3 in 2022). Given that a journal's Impact Factor (IF) indicates its perceived excellence, it is probable that the IF will influence the choices and actions of editors seeking to enhance their journal's ranking (Poria et al., 2015). Therefore, researchers tend to cite articles from reputable journals with a high IF.

Among the 22 documents analyzed, the research article by Gursoy et al., (2022) ("The Metaverse in the Hospitality and Tourism Industry: An Overview of Current Trends and Future Research Directions") has the highest citation (151) published in the Journal of Hospitality Marketing and Management. However, the author Dimitrios Buhalis has a high author citation of 374 from 4 articles (Buhalis, Leung, et al., 2023; Buhalis, Lin, et al., 2023; Buhalis, O'Connor, et al., 2023; Dwivedi et al., 2023).

Table 2: Journal with No. of Publications and Citation (Source: Authors' own work)

Journal	No. of Publications	No. of Citations
Artnodes	1	0
Computers in Human Behavior	1	0
Electronics (Switzerland)	1	19
Frontiers in Psychology	1	0
Information Technology and Tourism	10	6
International Journal of Contemporary Hospitality Management	2	167
International Journal of Performance Arts and Digital Media	1	13
Journal of Computer Information Systems	1	94
Journal of Hospitality Marketing and Management	1	151
Museum Management and Curatorship	1	0
Tourism Management	1	113
Tourism Review	1	41

Content Analysis

Document by Research Type

Figure 4 highlights that most studies in the chosen data are conceptual, i.e. 13(59%). On the other hand, empirical studies are available in nine (49%) papers. It is quite evident from the figure that Metaverse studies in tourism and hospitality management are still in the infancy stage. Empirical studies mainly focused on heritage tourism, where Baker et al., (2023) evaluate multiple heritage tourism applications and VR hardware from a user experience perspective. Another study presents empirical data on the development of blockchain-empowered Metaverse tourism in a specific destination, focusing on the case of Macau (Lin et al., 2023). Further empirical studies are based on users' /tourists' perspectives (Baker et al., 2023; Huang et al., 2023; Jo, 2023), and some concentrate on stakeholder perspectives as well (Dutta et al., 2023; Lin et al., 2023; Sánchez-Amboage et al., 2023).

An interesting fact about the conceptual paper is that all the highest-cited documents fall under the conceptual category. These documents mainly deal with the opportunities, challenges, and future research directions of Metaverse synthesis in the tourism and hospitality industry (Buhalis, Leung, et al., 2023; Buhalis, Lin, et al., 2023, 2023; Dwivedi et al., 2023; Koochang et al., 2023). Therefore, the results imply that the majority of the studies are based on a conceptual understanding of the author, with relatively limited primary data. Since most of the studies focused only on tourism and hospitality as a broad spectrum, a detailed evaluation has to be done in fields such as MICE, tourism activities, and tourism marketing.

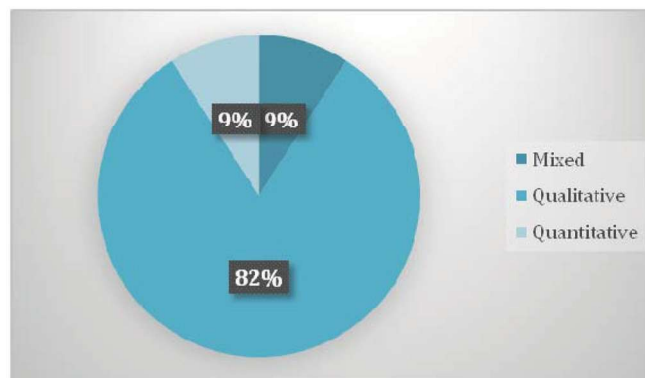


Figure 4: Document by Research Type (Source: Authors' own work)

Adopted Research Method

The authors found three types of research methods used in the data set consisting of 22 documents, of which 18 papers employed qualitative

methods (Refer. Figure 5). The rest of the documents used quantitative and mixed approaches (two papers each). In the study on tourists' thermal sensation and temperature comfort in the Metaverse platform, Huang et al., (2023) collected data from lab experiments and questionnaires. Both types of data were then processed using SPSS and Process Macro. Another mixed approach study was performed to explore the stakeholders' preferences for incorporating Metaverse tools in their business strategy. Fazio et al., (2023) used Q-Methodology, which helps reveal the different perspectives around a topic.

In a quantitative study, Jo (2023) employed Structural Equation Modelling (SEM) to empirically investigate the hypothesised linkages and evaluate the influence of different parameters on users' intention to continue using the Metaverse. Corne et al., (2023) in turn discusses the rationale behind adopting blockchain technology in the tourist accommodation industry, specifically focusing on its applications in loyalty programmes, online booking systems, and the enhancement of dependability and traceability of client testimonials on review platforms, in view of the fact that blockchain technology and NFTs are integral parts of the Metaverse payment system.

While qualitative studies were the prevailing approach in the provided dataset, researchers employed qualitative research methods for the new study areas but no secondary data was available for a quantitative investigation (Firmansyah & Umar, 2023). The Metaverse domain is relatively new, with a few research studies available to justify the authors' decision to perform qualitative research methods. In their academic works, Jung et al., (2024) and Koohang et al., (2023), brought experts from various service industries and compiled their opinion on Metaverse and their respective fields. These studies are crucial because these opinions and research ideas pave the way for future research.

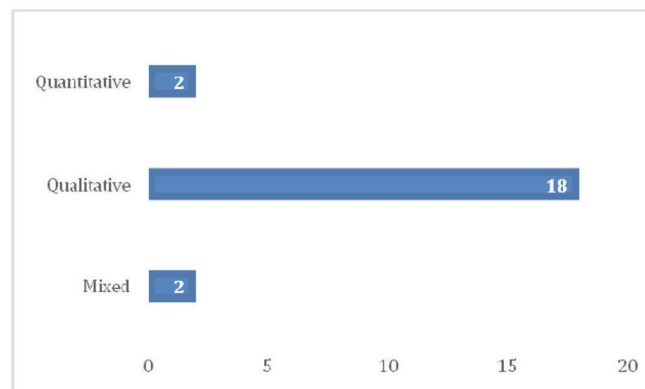


Figure 5: Adopted Research Method (Source: Authors' own work)

Documents by Tourism Segments

Tourism is an umbrella term that consists of various independent segments. This study further dives deep into the chosen dataset to explore the exact study area. Understanding the pattern of publications will help future studies focus on less-explored areas in the Metaverse, tourism, and hospitality management.

Most of the documents fall under the tourism management area (n=6) (Refer. Figure 6). These studies broadly explore the potential and challenges of Metaverse implementation in the tourism ecosystem. For instance, Ioannidis & Kontis (2023) conducted a review study on tourist and tourism destinations and found that the Metaverse has tremendous scope in revolutionising tourism activities and marketing. Meanwhile, Go and Kang (2023) focused on sustainable tourism development in alignment with UNWTO's Sustainable Development Goals (SDGs). Virtual technologies have been purported to aid in the recovery of tourism destinations and facilitate sustainable growth in the travel industry in the post-pandemic era (Drianda et al., 2021). However, Buhalis, Leung, et al., (2023) point out several challenges associated with Metaverse implementation in tourism and allied services. The challenges include, but are not limited to, security and ethical concerns, consumer experience challenges, economic challenges, and technological challenges.

Secondly, researchers emphasised user experiences (n=5) in their publications. The significance of user experience in tourism lies in its impact on tourists' intention to visit and their decision-making process. Elevated levels of trust and a favourable disposition towards personalised tourist recommendations (PTRs) can result in a stronger intention to travel (Lee & Kim, 2021; Sutcliffe & Hart, 2017; X. Yang et al., 2023). Interactions inside virtual environments can create a feeling of place, where individuals establish emotional connections and memories (Baker et al., 2023). Gaining insight into users' encounters with the Metaverse and HMD devices is crucial for developers, enabling them to craft immersive and captivating experiences surpassing mere technical capabilities. Furthermore, the users' interactions inside the Metaverse are symbolic since they improve one's self-perception and social status. Consequently, this can result in continued involvement with the platform. Hence, user experiences are crucial in establishing significant, memorable, and captivating interactions within the Metaverse.

On the other hand, hospitality has four documents dealing with potential advantages and difficulties that arise with introducing the Metaverse in the hospitality field. Buhalis, Lin, et al., (2023) highlight the importance of strategically utilising the Metaverse to co-create and develop hybrid virtual and physical consumer experiences collaboratively. In comparison, Gursoy et al., (2022) anticipate the impact of the Metaverse on the hospitality industry.

At the same time, it emphasises the need to create more Metaverse-centric marketing strategies and customer interaction. The hospitality sector can employ Metaverse applications in virtual booking, training and simulation, and interacting marketing and branding, while keeping in mind the negative impacts of the Metaverse.

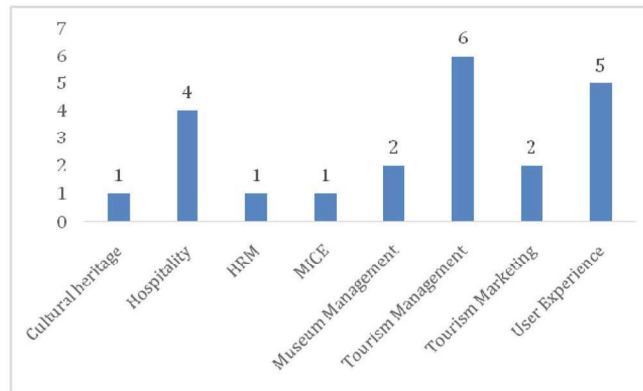


Figure 6: Documents by Tourism Segments (Source: Authors' own work)

Implications

The integration of Metaverse applications into the tourism and hospitality sectors presents several practical implications that can significantly enhance operational strategies and customer engagement. Organisations can utilise the Metaverse to establish a strong virtual presence, allowing them to market both virtual and physical goods effectively. This is particularly beneficial for attracting tech-savvy customers, especially millennials, who are increasingly engaged with digital experiences. By creating immersive environments where potential customers can explore destinations or products, businesses can enhance the booking process and increase conversion rates from interest to actual travel.

The Metaverse allows hoteliers and tourism operators to offer virtual tours of hotel rooms and amenities. This feature enables potential guests to experience a realistic preview of accommodations before making a reservation, enhancing their confidence in their choice. Additionally, the social interaction capabilities within the Metaverse foster community engagement, allowing users to share experiences and recommendations. This sense of community can lead to increased customer loyalty and repeat visits.

Understanding user experience is crucial in the Metaverse. Organisations must develop strategies that prioritise customer satisfaction through personalised interactions and immersive experiences. By focusing on user

experience, businesses can create more engaging environments that resonate with their target audience, ultimately leading to higher satisfaction levels. Destination management companies can leverage the Metaverse to showcase cultural heritage through immersive narratives that promote tourism while preserving local traditions. This enhances the attractiveness of destinations, encourages cultural exchange, and supports social equity within tourism practices.

Findings also highlight several academic implications that can stimulate further exploration in the fields of tourism and hospitality. The MICE sector has significant potential to thrive in the Metaverse. There is a pressing need for research focused on how MICE can effectively operate in a virtual setting. Understanding this dynamic could lead to innovative approaches for hosting events and conferences, thereby expanding the scope of MICE activities in the digital realm.

There is currently a gap in empirical research concerning user satisfaction levels within the Metaverse. Future studies should aim to quantify these experiences, providing insights into how they compare with traditional tourism methods. This understanding is essential for developing effective strategies that enhance user satisfaction and engagement in digital environments. Most of the existing studies on Metaverse applications in tourism rely on qualitative methodologies using secondary data. There is a clear need for empirical research with larger sample sizes to validate findings and provide actionable insights for practitioners. By employing diverse research methodologies, scholars can better understand user interactions within the Metaverse.

Further research is vital for conceptualising tourism activities within the Metaverse. Scholars should explore frameworks that address tourism governance, virtual destination development models, and user engagement strategies specific to this new digital landscape. Developing robust theoretical frameworks will advance academic discourse and guide practitioners in effectively leveraging Metaverse technologies. In summary, the study's practical and academic implications underscore the transformative potential of the Metaverse in tourism and hospitality, paving the way for innovative practices and further scholarly inquiry in this emerging field.

Limitations

This study has certain drawbacks. The literature review was performed using a single research database that is, Scopus. In future research, it would be beneficial to utilise alternative databases such as Web of Science, Crossref, or Google Scholar to obtain a more comprehensive understanding of the subject matter. In addition, this study only relied on research articles and review papers to examine the current status of the Metaverse in the fields of

tourism and hospitality. Further investigation involving diverse document categories, including book chapters, will contribute to a broader review of the subject area. The present study examined tourism and hospitality in a broader context. Therefore, a focused review of any specific tourism segment will give a more profound understanding. Due to the nascent stage of Metaverse research, authors may retrieve fewer documents. Nevertheless, the analysis unveiled an upward trend in Metaverse research within the tourism sector since 2020. Hence, there is potential for researchers to conduct a similar study with a larger number of documents in future.

4. Conclusion

This study examines the existing literature on the Metaverse in tourism and hospitality. The authors reviewed publication year, document types, and journals based on 22 documents obtained from the Scopus database using the PRISMA filtering procedure. The evaluation findings reveal the emergence of Metaverse research in tourism and hospitality, which has garnered significant interest among scholars since 2020. Adoption of Metaverse applications in tourism and allied services is currently limited. It is because of the absence of a fully functional Metaverse. Furthermore, this study thoroughly examined the content and assessed the research methods, types, and documents utilised by various tourism elements. Most of the inquiries were qualitative and conceptual. Researchers are genuinely interested in the Metaverse as a prospective catalyst for innovation and advancement. Limited research has been undertaken in MICE (Meetings, Incentives, Conferences, and Exhibitions) and the marketing context. This paper provides an overview of the current status of Metaverse research in the tourism and allied services field so that tourism practitioners and scholars comprehensively understand the studied area to develop future plans.

Declaration of Conflicting Interests

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