

# **Expert Perspectives on Factors Shaping Metaverse Adoption for Cultural Heritage Experiences in Hospitality Industry within an Emerging Economy**

## **Abstract**

**Purpose** –Although the Metaverse has been widely adopted in developed countries, there has not been any research investigating the implantation of this highly transformative technology in emerging economies and disadvantaged regions, such as Tunisia. This paper aims to critically explore the factors influencing the adoption of Metaverse for cultural heritage experience and discusses how will it disrupt the future of the hospitality industry.

**Design/methodology/approach** – 44 semi-structured interviews were conducted in the Tunisian hospitality industry who provided their expert opinions during in-depth interviews. The interviews were then analysed using thematic analysis.

**Findings** - The findings indicate that the Metaverse presents benefits, success factors and challenges for offering cultural heritage experiences in the hospitality industry and that its adoption in poor and less developed countries is nuanced.

**Social Implications** - Leveraging the Metaverse for cultural enrichment can be a powerful tool for the socioeconomic development of underprivileged regions, provided that it is implemented inclusively to include underprivileged labour, whose work in the industry lies on the bottom of the economic pyramid.

**Practical Implications** – The findings of the study help hospitality managers identify opportunities and challenges in Metaverse, fostering an understanding of the cultural environment and its socio-economic development as key requirements to enhance visitor experience via Metaverse.

**Originality/value** –This paper further explains the impacts of Metaverse on cultural heritage experience provided in the hospitality industry rooted in the previous literature relating to technology-enhanced experience.

**Keywords:** Metaverse, Hospitality, Tunisia, Emerging Economy

## 1. Introduction

In recent times, the market demand for and operational implementation of digital cultural experiences such as the Metaverse have been rising rapidly. With use cases ranging from informing decision making (Bagozzi *et al.*, 2022), through to changing the way that people live and interact with each other. Metaverse is a platform that operates in the virtual world that provides an immersive experience for users to interact with each other. Since, Metaverse acts as a gateway to online experiences that could impact the physical world (Soliman *et al.*, 2024) it can be considered as an alternative to the physical experience in the physical world, shaping culture in symbolic ways, including how culture is accessed, consumed, and valued (Wright, 2022). The role of digital technologies has been to disintermediate the ‘value chain’ in cultural production and consumption, with digital devices, platforms, and infrastructures being introduced and dominating these processes (Roberge *et al.*, 2017).

In the hospitality industry, the Metaverse is perceived as a bridge between digital and physical realms, allowing for the integration of resources and experiences (Buhalis and Karatay, 2022). It promises to revolutionise social interactions through three-dimensional, immersive experiences, facilitating a blend of virtual and real-life activities (Buhalis *et al.* 2023; Gursoy *et al.*, 2022). Thus, the Metaverse represents a significant shift in digital interaction and engagement, offering vast potential for innovation in user engagement, collaboration, and the co-creation of value, particularly within the hospitality industry (Buhalis *et al.*, 2022).

Existing research on Metaverse in hospitality is fragmented and exploratory, failing to capture the comprehensive impact and overlooking potential challenges (Chen, 2024). Furthermore, it has not specifically focused on cultural heritage experiences (Buhalis and Karatay, 2022). With many cultural sites in danger (Hosseini *et al.*, 2021), more research is needed to explore the effects and challenges of adopting Metaverse in the hospitality sector and the broader impact on cultural heritage experiences. Also, despite its potential to expand audiences and engagement (Zaharia and Preda, 2024), Metaverse adoption in emerging economies like Tunisia is in its early stages (Agnihotri *et al.*, 2024). Therefore, more research is needed on the potential and challenges faced by emerging economies' (e.g. Tunisia) hospitality organisations when adopting Metaverse for cultural heritage experiences.

Institutional theories, specifically institutional isomorphism (Lin *et al.*, 2023), can help to illustrate the underlying mechanisms behind the adoption of the Metaverse by hospitality organisations in Tunisia during the provision of cultural heritage experiences. Tunisia's government heavily controls the economy, making the bureaucracy cumbersome for developed economies like the USA. However, while politics are country-specific, Metaverse operates beyond national borders. Service providers create the rules and manage the Metaverse, necessitating consideration of ideals and social impact (e.g., ethics) (Dwivedi *et al.*, 2022). This study employs Institutional Isomorphism perspective as a theoretical framework for examining Metaverse adoption in Tunisia as an emerging economy. This choice is driven by its contextual relevance and theoretical fit. First, Tunisia, as an emerging economy, faces unique institutional pressures. Institutional Isomorphism Theory helps understand how these factors influence new technology adoption, such as Metaverse. Second, Governments in emerging economies often shape technological adoption. Institutional Isomorphism can explore how government policies, regulations, and incentives influence organisations' Metaverse adoption decisions. Third, Institutional Isomorphism emphasises external pressures like industry norms, government regulations, and professional standards on organisational behaviour (Oliver, 1991). These isomorphic pressures are especially relevant in emerging economies. For example, organisations in emerging economies embrace the mimetic isomorphism and mimic practices of peers than organisations in developed countries (Child and Rodrigues, 2005) due to their uncertainty in dynamic and volatile environments and the fear of failure in a competitive context. In this context, the study seeks to address the central research question of ‘what factors influence the adoption of Metaverse to experience cultural heritage within the hospitality industry in an emerging economy?’.

This study makes several contributions. First, it's among the first empirical investigations of Metaverse in emerging economies. Unlike most previous studies that have focused on developed countries, this research focuses on Tunisia, a promising market with a large hospitality sector and high poverty levels. Tunisia has a high percentage of social media users (56.9%) (Datar portal, 2024) and a 12% audience of Metaverse users (Start.io, 2024). Second, while Metaverse attracts academic and practitioner interest, existing research fails to consider its comprehensive impact on hospitality and overlooks potential challenges (Yang and Wang, 2023). From a practical perspective, this study identifies opportunities and challenges in Metaverse hospitality, fostering understanding of the cultural environment and its socio-

economic development as key requirements to enhance visitor experience via Metaverse hospitality.

## **2. Literature Review**

### **2.1. Institutional Isomorphism and Metaverse Adoption in Emerging Economies**

In emerging economies like Tunisia, institutional isomorphism plays a significant role in shaping the adoption of innovative digital technologies, including the Metaverse. Following DiMaggio and Powell's (1983) argument that organisations copy other organisations' practices to acquire legitimacy, with modern society and organisations tending to be similar. It is no surprise that often there is a certain homogeneity in the response to the changing external environment by organisations within this space (Sakib, 2020). Institutional isomorphism can explore how this legitimacy-seeking influences Metaverse adoption. As organisations in emerging economies confront unique economic challenges and external pressures, they are likely to converge toward digital transformation in their respective industries. In the context of emerging economies, institutional isomorphism is especially pertinent due to structural economic challenges that limit competitiveness. Tunisia, for example, experiences slow economic growth and environmental issues like droughts (EBRD, 2024), which hinder the full development of a competitive market environment like that of developed economies such as the USA or the UK. Consequently, Tunisian organisations tend to conform to external institutional pressures, adopting practices that enhance their legitimacy and performance within global industries. This form of institutional isomorphism is vital for sectors like hospitality, which are expanding but must align with international standards and practices to remain competitive in the global market.

The Metaverse has tremendous potential to enhance cultural heritage experiences, particularly in emerging economies like Tunisia. By enabling new ways of consuming and valuing culture, the Metaverse can reduce the number of intermediaries in the value chain, allowing cultural institutions to directly engage with their audiences and create innovative forms of participation (Bakshi and Throsby, 2021). This digital shift also promotes a clearer distinction between traditional cultural policy and media policy, with the Metaverse serving as a bridge between the two (Valtysson, 2020).

As social media and digital interactivity gain prominence, the Metaverse has become an attractive platform for cultural institutions looking to innovate (Gadalla *et al.*, 2013). Technologies like VR and AR disrupt conventional methods of experiencing culture by offering more interactive and immersive experiences. For instance, international cultural institutions have already begun to invest in virtual marketplaces where art and heritage can be exhibited and sold, marking a significant shift toward digital art spaces. This integration can help emerging economies like Tunisia to internationalise their cultural products, attract tourists, and generate economic growth (Kshetri, 2022). However, the adoption of the Metaverse in cultural heritage also presents challenges. Costs associated with upskilling and digital transformation are significant barriers, particularly for smaller institutions. Despite these challenges, major players in the global cultural sector are leading the way by investing in virtual hubs for exhibitions and sales, signalling the growing importance of the Metaverse in the digital economy.

## **2.2. Normative, Coercive, and Mimetic Isomorphism in the Metaverse Adoption**

Normative isomorphism is closely linked to professionalisation, which drives similarity within organisations as professionals share common standards and norms (DiMaggio and Powell, 1983). In the context of the Metaverse, the hospitality industry experiences normative pressures through professional education and training, particularly in cultural heritage sectors such as museums and archives. These institutions benefit from the push towards digital convergence, often facilitated by interdisciplinary collaboration between cultural and technological professionals (Rasmussen, 2019). This digital transformation is particularly relevant as institutions adopt the Metaverse to enhance visitor engagement, providing new avenues for cultural preservation and education.

Coercive isomorphism stems from formal and informal pressures, often resulting from legal regulations, environmental standards, or societal expectations (Rasmussen, 2019). In Tunisia, coercive pressures are evident in the legal framework governing cultural heritage, which dates to 1886 (UNESCO, 2024). Although the laws on cultural heritage have evolved, formal pressures from the state may influence the adoption of new technologies like the Metaverse to promote and preserve Tunisia's rich cultural heritage. Simultaneously, informal societal pressures, including cultural expectations and economic constraints, also play a significant role

in shaping organisational behaviour, especially for non-profit entities like museums that do not always operate under purely economic rationality.

Mimetic isomorphism occurs when organisations facing uncertainty imitate others to achieve legitimacy or reduce risk (DiMaggio and Powell, 1983). For cultural heritage institutions, uncertainty regarding funding, cultural policy, and the sustainability of heritage sites often leads to the imitation of successful models that have integrated digital technologies, such as the Metaverse (Hadley and Gray, 2017). The rapid adoption of these technologies, driven by mimetic pressures, can bring both opportunities and challenges. For example, while the Metaverse offers new ways to engage with audiences, the high costs associated with digital transformation can create financial pressures, particularly in the face of limited budgets (Rasmussen, 2019). This mimetic pressure highlights the need for a broader understanding of how institutional isomorphism affects the adoption of the Metaverse, particularly in emerging economies where the government's role in regulating digital transformation is critical as well.

### **3. Methodology**

#### **3.1. Sample**

Due to the nature of this study, a qualitative method was selected and carried out and the sample consisted of a total number of 44 respondents within the hospitality industry. This includes owners of software development IT organisations and hospitality and culture operators or experts such as academics and government officers. All respondents could be considered experts on the Metaverse, as they were computer scientists or managers of startups or governing and regulatory officers whose activities were partially oriented towards the creation and development of applications or platforms for the hospitality industry. Table 1 includes a variety of the respondents' demographic characteristics.

#### **3.2. Data Collection**

Data collection was carried out through semi-structured interviews. This approach involves using pre-developed open-ended questions and prepared follow-up prompts, with additional spontaneous probes as needed (Richards and Morse, 2007). Respondents agreed to participate in face-to-face, semi-structured interviews, lasting approximately 60–90 minutes. Saturation

criteria was applied to determine the appropriate sample size and ensure data collection was guided by information quality rather than quantity (Saunders *et al*, 2018). Interviews were conducted until no new information emerged, indicating that the data corpus was representative of the phenomenon under investigation. Saturation was achieved when respondents 43 and 44 failed to reveal new information, and themes became repetitive. This finding aligns with Patton's (2002) conclusion that saturation can be reached in many shorter interviews or a small number of in-depth interviews. All 44 interviews were conducted in French, aside from one in English. French is the native language of the respondents and one of the co-authors. To ensure the validity of the survey in French, several steps were taken as follows considering previous literature (Khilji and Jomezai, 2024; Sutrisno *et al.*, 2013). That is, the transcript was translated from English into French by bilingual experts fluent in both languages and cultures. A back-translation process was then conducted by them to verify the accuracy of the translation.

To establish a robust foundation for data collection, a non-random sampling technique was employed, specifically snowball sampling. Following relevant literature (Elbaz, 2013), this method was chosen to access a diverse range of experts with varying perspectives on Metaverse adoption in the hospitality industry. Initial "seed" respondents were carefully selected based on their expertise and diverse experiences within the field. Since, these individuals possessed distinct backgrounds and IT knowledge relevant to the research focus, ensuring a wide range of perspectives, they were considered experts and interviewed to collect the data for this research.

As recommended by Noy (2008), respondents were strategically selected, not only possessing rich information for the research but also serving as bridges to other potential respondents within their social networks. Respondents were encouraged to recommend additional experts within their social networks, expanding the sample and ensuring a diverse representation of viewpoints as indicated in Table 1.

Table 1 – Respondents’ profile

Int.	Role	Age	Qualification	Gen der	Type of organisation	Years of experience	Years of exp in the industry
1	Co-founder & Managing Director	37	Postgraduate	M	Startup - Cultural experiences innovations	7	10
2	CEO	30	Graduate	M	Startup - re-imagining the Tunisian oral folkloric heritage	4	6
3	Academic/ CEO	40	PhD	F	University and a startup in tourism technology to promote Tunisian heritage through digital technologies	3	6
4	CEO	42	PhD	F	a technological startup in the field of cultural tourism.	5	6
5	Educational director	41	Graduate	F	Museum Lab	5	10
6	CEO	41	Postgraduate	M	archaeology and heritage preservation	6	10
7	CEO	35	Post grad	M	Software IT – developer	4	6
8	CEO	31	Graduate	M	Software IT – developer	3	6
9	CEO	30	Graduate	F	Software IT – developer	4	7
10	Digital Marketing Manager	28	Graduate	M	Software IT – developer	6	6
11	Consultant	57	Graduate	M	Tourism operations	4	14
12	Manager	61	Post grad	M	Cultural tourism	26	35
13	Academic	34	PhD	F	University	7	7
14	Consultant	60	Graduate	F	Social-cultural entrepreneur	19	20
15	Academic	40	PhD	F	University	15	15
16	Director	52	Graduate	F	Hotel Federation	4	5
17	Researcher	25	Masters	M	German agency	3	4
18	Researcher	23	Master	W	Cultural and tourism associations	2	2
19	Marketing exec	24	Master	W	Tourism marketing	1	1
20	Tourist guide	56	Degree	M	Tourist Company	28	35
21	CEO	26	Master	W	Hand Crafts	3	3
22	CEO	64	Graduate	M	Tourism agency	22	40
23	Sales exec	25	Masters	W	Hotel	3	3
24	Owner	28	Master	M	Guest House	4	8
25	Owner	55	Graduate	M	Small hotel	11	25
26	Manager	65	Graduate	W	private university of Tourism and Hospitality	40	45
27	Manager	45	Degree	M	SME specialised in organising cultural tours	15	20
28	Manager	37	Graduate	M	SME specialised in organising ecotourism tours	13	14
29	Owner	35	Master	W	SME specialised in rural tourism tours	5	5
30	Director	58	Graduate	M	Hotel part of a large international Chain	20	28
31	Academic	48	PhD	M	University specialism: e-tourism	6	6



32	Director	32	Master	W	hotel part of a large international Chain	3	3
33	Owner	70	Graduate	W	a rural guest house	18	28
34	Owner	60	Graduate	W	Hotel	15	30
35	Board member	55	Museum	M	Museum	25	25
36	Director	57	Graduate	M	Regional Tourism representation	25	30
37	Engineer	50	Graduate	M	Tunisian airway company.	25	30
38	Manager	50	Graduate	M	Tunisian holding with hospitality structures	15	15
39	Owner	48	Graduate	W	Small Hotel	25	25
40	Coordinator	35	Master	M	German technical agency	7	10
41	Communication specialist	52	Graduate	M	European technical agency	10	10
42	Director	57	Graduate	W	Ministry of Tourism	-	-
43	Exec director	54	Graduate	W	Tunisian hotels federation	-	-
44	CEO	47	Graduate	M	Professional training institute in Gastronomy	-	-

*Source: Authors own work*

### **3.3. Data Analysis**

To gain a deep understanding of the data, a thorough immersion process was conducted, involving a careful reading of the transcripts (Braun and Clarke, 2012; Bryman, 2012). Initial codes were generated through a systematic line-by-line analysis, identifying key features relevant to the research question. Themes were identified by recognising hierarchical patterns and recurring concepts within the coded data as indicated in Figure 1. This was an iterative process involving constant refinement and movement between the dataset, coded extracts, and developing themes. These themes were not merely emergent but were actively constructed through a rigorous engagement with the data. When clarification was needed, respondents were re-approached to provide additional context or insights. This active construction distinguishes thematic analysis from simpler textual analysis (Braun and Clarke, 2012).

## 4. Thematic Analysis

### 4.1. Isomorphism Theory: Deciphering the Forces Shaping Metaverse Adoption in Tunisia

To understand the dynamics of Metaverse adoption in Tunisia, the analysis draws upon DiMaggio and Powell (1983), Oliver (1991), Sakib (2020), Dwivedi et al. (2022), Lin et al. (2023), theory of institutional isomorphism. This theory posits that organisations tend to become similar to each other over time due to three isomorphic pressures namely normative, coercive, and mimetic.

**A (Parent) Thematic Code – Normative Isomorphism** is derived from the interview transcripts below (Table 2) that Normative Isomorphism is evident in the shared belief among professionals that adopting the Metaverse is necessary to stay competitive and align with industry trends.

Table 2: A (Parent) Thematic Code – Normative Isomorphism

...”I am convinced that the Metaverse could truly benefit the tourism and culture industry. It opens the door to unique virtual tourist experiences, allowing visitors to explore destinations, participate in cultural events, and interact with other users, all from the comfort of their homes. I believe that experiencing a virtual tour of a tourist destination could certainly inspire a desire to visit it in person”... ...”A digital space where users can interact, socialise, create businesses, and experience various fields...the Metaverse is a parallel world to the real one, and its economy is still under...”...
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*Source: Authors own work*

This pressure arises from professional norms, values, and beliefs within a particular field. In the context of the Metaverse, professionals in the hospitality and culture sectors believe that adopting this technology is crucial to stay competitive and meet the evolving expectations of tech-savvy consumers. This reflects a normative pressure to conform to industry trends and embrace innovation. Additionally, there is a shared belief that the Metaverse can enhance cultural understanding and preservation, aligning with the professional values of promoting Tunisian heritage.

A (Parent) Thematic Code – **Coercive Isomorphism** is derived from the interview transcripts below (Table 3) that Coercive Isomorphism is apparent in the constraints imposed by funding sources and the need to comply with data security regulations in Tunisia.

Table 3: A (Parent) Thematic Code – Coercive Isomorphism

...” Finally, the main challenges to using the Metaverse are the inaccessible equipment and limited funds. The initiative should come from a Tunisian investment group, not just from foreigners”...  
 ...”Access to local funds is a challenge. Most funds come from international sources or foreign funds, like FNF or European funds, which have strict guidelines”...  
 ...”I am also concerned about the security of personal data. The immersive nature of the Metaverse often involves the collection of sensitive data, and it is crucial to ensure strict security standards to protect users' privacy...adopting reliable security systems is essential to eliminate the risks of hacking, theft of confidential data, and identity theft”...

Source: Authors own work

This pressure stems from external forces, such as regulations, funding constraints, or market demands. In the Tunisian context, limited access to local funding and reliance on international sources with strict guidelines create external pressures on Metaverse development. The need to adhere to data security standards and regulations is also highlighted, indicating coercive pressures to ensure user privacy and prevent misuse of the Metaverse.

A (Parent) Thematic Code – **Mimetic Isomorphism** is derived from the interview transcripts below (Table 4) that Mimetic Isomorphism is observed in Tunisia in the tendency to emulate successful models of virtual heritage preservation and social media engagement.

Table 4: A (Parent) Thematic Code – Mimetic Isomorphism

...”The metaverse could help preserve our cultural heritage with virtual museums showcasing our treasures around the world”...  
 ...”Imagine tourists worldwide being able to experience the grandeur of Carthage's ruins or wander through the vibrant streets of Djerba through VR”...  
 ...”We should create virtual versions of cultural sites like Carthage to showcase Tunisian culture”...  
 ...”A digital space where users can interact, socialise, create businesses, and experience various fields...the Metaverse is a parallel world to the real one, and its economy is still under”...  
 ...”Just like if they are on TikTok or Facebook, we must have a presence there.”...

Source: Authors own work

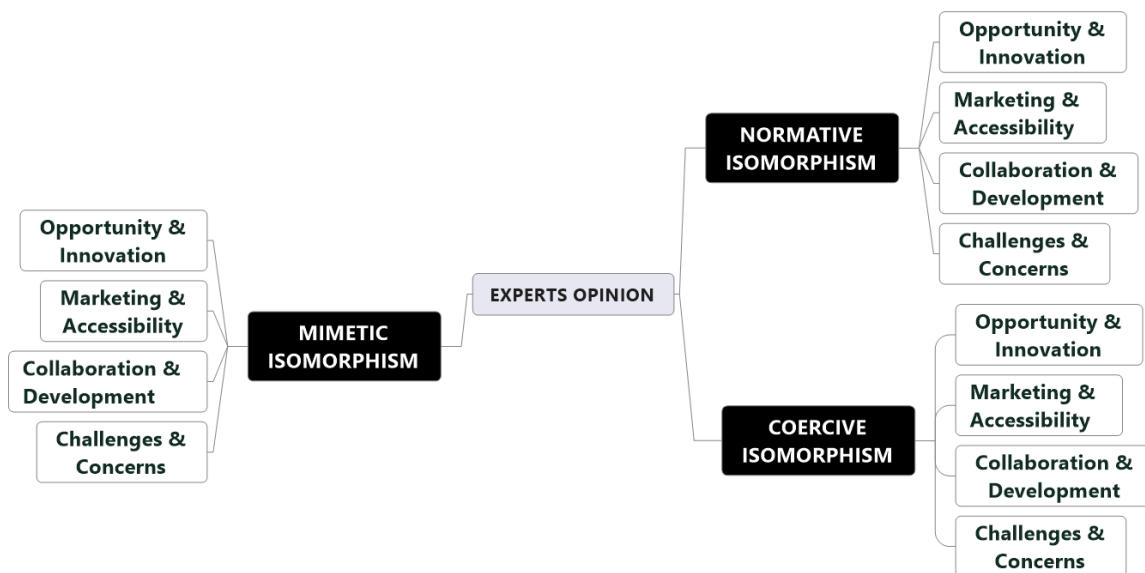
This pressure arises from the tendency of organisations to imitate successful models or industry best practices. In the interviews, there is evidence of mimetic isomorphism in the suggestions to create virtual versions of cultural sites like Carthage, mirroring successful models of virtual heritage preservation in other countries. The desire to emulate the success of social media platforms like TikTok and Facebook in reaching target audiences is also evident, driving the push for a strong Metaverse presence.

#### 4.2 A Hierarchical Thematic Coding Scheme: Systematising the Analysis

Following the above (parent) thematic codes of Institutional Isomorphism, the Metaverse has emerged as a technological frontier with the potential to reshape industries and redefine human

experiences. In Tunisia, the adoption of this immersive technology is gaining traction, particularly within the hospitality and culture sectors. To understand the factors driving this adoption, a thematic analysis of interview transcripts from key stakeholders in the Tunisian Metaverse landscape was conducted. This analysis explores the opportunities, challenges, and isomorphic pressures shaping the integration of the Metaverse in Tunisia, providing valuable insights for policymakers, businesses, and researchers alike. The interviews reveal a tapestry of perspectives on the Metaverse, highlighting its potential benefits and challenges in the Tunisian context. Accordingly, a (child) thematic coding scheme was developed to categorise the textual data under the theory of Institutional Isomorphism, four further key (child) thematic codes emerge hierarchically from the analysis as shown in Figure 1 below.

Figure 1 – Hierarchical Thematic Codes



Source: Authors own work

A hierarchical thematic code – **Opportunity and Innovation** is derived from the interview transcripts below (Table 5) that The Metaverse is viewed as a potential catalyst for innovation in the hospitality and culture sectors. Interviewees envision virtual tours of historical sites, immersive cultural experiences, and the creation of unique digital souvenirs. This resonates with global trends highlighting the Metaverse’s role in transforming cultural heritage preservation and hospitality experiences. However, the realisation of these opportunities hinges on addressing the challenges and concerns that are also prevalent in the interviews.

Table 5: A (Child) Thematic Code – Opportunity and Innovation

...”The metaverse could help preserve our cultural heritage with virtual museums showcasing our treasures around the world”...  
 ...”Imagine tourists worldwide being able to experience the grandeur of Carthage's ruins or wander through the vibrant streets of Djerba through VR”...  
 ...”We should create virtual versions of cultural sites like Carthage to showcase Tunisian culture”...  
 ...”This includes offering virtual experiences, immersive workshops, and 3D souvenirs. It's about diversifying our offerings”...  
 ...”The key to the success of the Metaverse lies in collaboration among various industry stakeholders, including technology developers, content creators, businesses, and users”...

*Source: Authors own work*

Hence, the Metaverse is viewed as a fertile ground for innovation, offering opportunities to create novel virtual tourist experiences, preserve and showcase Tunisia's rich cultural heritage, and generate new revenue streams. Interviewees envision immersive tours of ancient Carthage, interactive explorations of traditional markets, and the creation of unique digital souvenirs. This perception aligns with global trends recognising the Metaverse's potential to revolutionise cultural tourism and heritage preservation in Tunisia.

A hierarchical thematic code – **Marketing and Accessibility** is derived from the interview transcripts below (Table 6) that the Metaverse is seen as a powerful marketing tool to reach a wider audience, especially tech-savvy young consumers. By creating virtual experiences and showcasing Tunisian culture and heritage, stakeholders aim to attract tourists and promote the country's unique offerings. This aligns with the growing emphasis on digital marketing and the use of immersive technologies to engage consumers. However, concerns about the digital divide and the accessibility of Metaverse technologies for both businesses and consumers need to be addressed to ensure equitable opportunities.

Table 6: A (Child) Thematic Code – Marketing and Accessibility

...”They can access a larger international market of tech-savvy young consumers who were previously out of reach”...  
 ...”With the Metaverse, there is potential to create innovative services and generate new revenue streams”...  
 ...”Just like if they are on TikTok or Facebook, we must have a presence there. It's an opportunity to stand out, differentiate ourselves, and offer a unique experience.” “The tourism industry can use VR to create immersive marketing campaigns, allowing potential visitors to 'experience' Tunisia's attractions online, however, hotels may fear that the Metaverse will reduce physical bookings, impacting their revenue”...  
 ...”The average Tunisian citizen is not aware of the benefits of the Metaverse. Foreign tourists visiting Tunisia also don't expect such experiences, as there is insufficient promotion.”...  
 ...”First, it would be necessary to simplify the governance of this fragmented cultural and tourism ecosystem”...  
 ...”Moreover, culture should increasingly be perceived as an industry (ICC)”...  
 ...”In the context of Tunisia, it's crucial to ensure that the Metaverse is accessible, especially in areas with valuable heritage sites. We also need to address the resistance to digital technologies and make adoption easier for businesses and consumers”...

*Source: Authors own work*

The Metaverse is perceived as a powerful marketing tool, enabling Tunisian businesses to reach a wider audience and promote the country's cultural attractions to tech-savvy consumers. By creating engaging virtual experiences, stakeholders aim to attract tourists and position Tunisia as an innovative and forward-looking destination. However, concerns about the digital divide and ensuring equitable access to Metaverse technologies for both businesses and consumers are also acknowledged.

A hierarchical thematic code – **Collaboration and Development** is derived from the interview transcripts below (Table 7) that the need for collaboration among various stakeholders in Tunisia, including technology developers, content creators, businesses, and the government, is repeatedly emphasised. Interviewees recognize that a fragmented ecosystem could hinder Metaverse development and advocate for a more unified approach. This highlights the importance of fostering partnerships and creating an enabling environment for innovation and growth in the Metaverse space.

Table 7: A (Child) Thematic Code – Marketing and Accessibility

<p>...”Together, they can shape an inclusive, ethical, and evolving Metaverse that meets the needs and aspirations of individuals and society”...</p> <p>...”There are concerns about the concentration of power among large technology companies that may dominate the Metaverse, which raises questions about control and influence.”...</p> <p>...”The government's support for Metaverse development is lacking. Projects often rely on funding from the Tunisian diaspora or international cooperation funds”...</p> <p>...”First, it would be necessary to simplify the governance of this fragmented cultural and tourism ecosystem”...</p> <p>...”Moreover, culture should increasingly be perceived as an industry (ICC)”...</p> <p>...”In the context of Tunisia, it's crucial to ensure that the Metaverse is accessible, especially in areas with valuable heritage sites. We also need to address the resistance to digital technologies and make adoption easier for businesses and consumers”...</p> <p>...”We need to encourage Tunisian youth to develop such startups.”...</p>
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*Source: Authors own work*

The need for collaboration among various stakeholders, including technology developers, content creators, businesses, and the government, is repeatedly emphasized. Interviewees recognise that a fragmented ecosystem could hinder the development of a thriving Metaverse in Tunisia. They advocate for a unified approach, fostering partnerships, and creating an enabling environment for innovation and growth in this nascent technological landscape.

A hierarchical thematic code – **Challenges and Concerns** is derived from the interview transcripts below (Table 8) that despite the enthusiasm for the Metaverse's potential, interviewees express various concerns. Technological dependence, data security risks, and the

potential loss of identity and cultural heritage are highlighted as potential drawbacks. These concerns reflect broader societal anxieties about the rapid advancement of technology and its impact on human behaviour and cultural values. Addressing these concerns through ethical guidelines, data privacy regulations, and responsible technology use is crucial for fostering trust and ensuring the sustainable development of the Metaverse in Tunisia.

Table 8: A (Child) Thematic Code – Challenges and Concerns

<p>...” Finally, the main challenges to using the Metaverse are the inaccessible equipment and limited funds. The initiative should come from a Tunisian investment group, not just from foreigners”...</p> <p>...”The average Tunisian citizen is not aware of the benefits of the Metaverse. Foreign tourists visiting Tunisia also don't expect such experiences, as there is insufficient promotion”...</p> <p>...”I am also concerned about the security of personal data. The immersive nature of the Metaverse often involves the collection of sensitive data, and it is crucial to ensure strict security standards to protect users' privacy...adopting reliable security systems is essential to eliminate the risks of hacking, theft of confidential data, and”...</p> <p>...”Disruptive effects or disadvantages include technological dependence, which could make humans slaves to technology, leading to a new form of addiction gradually emerging”...</p>
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*Source: Authors own work*

Despite the enthusiasm for the Metaverse's potential, interviewees express a range of concerns. Technological dependence, data security risks, and the potential erosion of cultural identity are highlighted as potential drawbacks. <sup>1</sup> These concerns reflect broader societal anxieties about the rapid advancement of technology and its impact on human behaviour, cultural values, and economic structures.

### 4.3. Strategic Implications for Metaverse Adoption in Tunisia

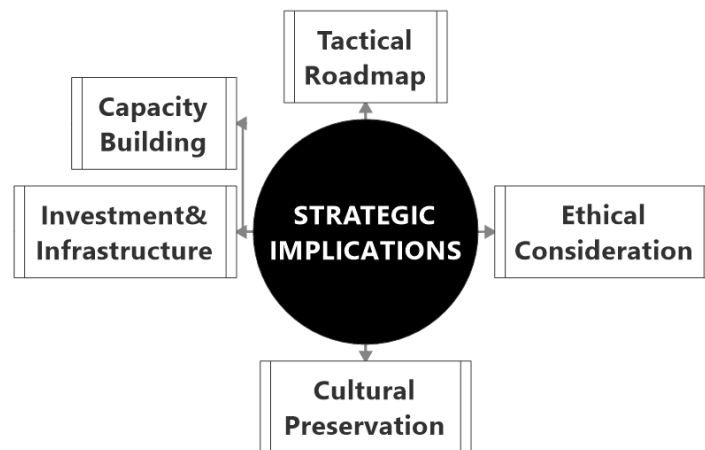
The thematic analysis reveals a deeper picture of Metaverse adoption in Tunisia, characterised hierarchically by a dynamic interplay of all three types of isomorphism on Metaverse adoption in Tunisia. These isomorphic pressures collectively shape the strategies and decisions of organisations and individuals involved in Metaverse adoption in Tunisia in terms of opportunities and innovation, marketing and accessibility, collaboration and development, and challenges and concerns.

Based on the hierarchical thematic analysis, several implications can be drawn for Metaverse adoption in Tunisia:

- Developing a national Metaverse strategy that fosters collaboration, innovation, and responsible technology use is crucial. This roadmap should address concerns related to accessibility, data privacy, and cultural preservation.
- Investing in education and training programs to equip Tunisians with the skills and knowledge needed to participate in the Metaverse economy is essential.
- Attracting investment in Metaverse infrastructure, including reliable internet connectivity and accessible VR/AR equipment, is vital for widespread adoption.
- Establishing clear ethical guidelines and data privacy regulations is necessary to build trust and mitigate potential risks associated with the Metaverse.
- Integrating the Metaverse into cultural heritage preservation efforts can create new opportunities for education, tourism, and global engagement.

By addressing these strategic implications as indicated in Figure 2, Tunisia can harness the transformative potential of the Metaverse while mitigating its risks and ensuring its sustainability.

Figure 2 – The Metaverse in Tunisia: Strategic Implications



*Source: Authors own work*

## 5. Discussion and Conclusions

### 5.1 Conclusions

The thematic analysis of communicated texts on Metaverse adoption in Tunisia reveals several key themes: benefits, challenges, and success factors as indicated the thematic codes displayed



in Figure 1. Benefits include the preservation of cultural heritage through the creation of virtual museums and historical sites, enhanced accessibility to heritage sites for a wider audience, the provision of unique visitor experiences through virtual tours, events, and interactions, and the generation of new revenue streams and reduction of marketing costs. Challenges include limited access to necessary equipment and high costs associated with accessing metaverse platforms, insufficient knowledge among both Tunisian citizens and foreign tourists about the benefits of the metaverse, concerns regarding user privacy and data security in the Metaverse, difficulty in accessing local funding for metaverse projects, a lack of government support for metaverse development, concerns about the concentration of power among large tech companies and the need for appropriate regulation, and the need to address resistance to digital technologies among businesses and consumers. Key success factors include fostering collaboration among industry stakeholders to create an inclusive and ethical metaverse, ensuring the metaverse is accessible to all, especially in areas with valuable heritage sites, encouraging Tunisian youth to develop metaverse startups, and effectively promoting the metaverse and its benefits to target audiences.

Institutional isomorphism has provided a deeper understanding of the thematic codes identified in Figure 1. For example, coercive isomorphism, such as government mandates or industry standards, mimetic isomorphism, such as imitating successful peers, and normative isomorphism, such as following professional norms or institutional entrepreneurs, can influence adoption. By understanding these factors, we have identified key drivers of Metaverse adoption in the Tunisian hospitality industry and inform strategic recommendations.

## **5.2. Theoretical Implications**

Our study offers several theoretical contributions. First, the study responds to recent calls for more systematic research on the metaverse in the hospitality and tourism (Foroudi *et al.*, 2023; Gursoy *et al.*, 2022). This paper contributes to the global discourse on the factors influencing Metaverse adoption in the hospitality industry for cultural heritage experience where the current literature is still preliminary and scant (Buhalis *et al.*, 2022). The critical discussion of our paper aims at the opinions of the experts and professionals relating to the Metaverse adoption and experience in the hospitality industry for cultural heritage experience in an emerging economy. However, the theory's effectiveness in emerging economies could be hindered by technical limitations, such as a digital divide that affects the diffusion process, bandwidth constraints, the availability of necessary hardware among consumers, cultural

differences in technology use, and infrastructure readiness as indicated in NVivo thematic hierarchical codes and analysis.

It is concluded that the foundational theory of institutional isomorphism remains highly relevant in today's digital society. While new (digital) theories are constantly emerging, the core tenets of isomorphism—mimetic, normative, and coercive pressures—continue to exert a powerful influence on today's organisational behavior, even in the context of rapidly evolving technologies like the Metaverse, which offers a particularly compelling lens for examining Metaverse adoption in Tunisia, an emerging economy navigating unique institutional pressures and constraints. By applying this established theory, we can gain valuable insights into how these pressures shape the adoption and adaptation of new technologies within this hospitality context. In addition, most studies on the metaverse are conceptual (Buhalis *et al.*, 2022, Gursoy *et al.*, 2022), and empirical analysis is missing. Our study addresses this gap by reporting empirical data from stakeholders in the Tunisian hospitality industry with theoretical supposition.

Furthermore, the study contributes to the relevant literature by focusing on an emerging economy, opposed to most studies that have explored metaverse in the context of developed economies. This allowed us to get a deeper understanding of the full potential of metaverse, even in markets with weak technological infrastructure, and of the associated barriers. Also, the application of the Metaverse in hospitality industry in emerging economies offers a unique perspective on digital transformation. Nevertheless, the application of the Metaverse in hospitality industry will expand rapidly with limitless boundaries when the advancements reach a vast layer of regional and local brands beyond the global brands (Hollensen *et al.*, 2022), the potential and importance of the Metaverse will attract more researchers' attention in the near future (Gursoy *et al.*, 2022).

This study explored the adoption of the Metaverse in the hospitality industry especially in an emerging economy context and suggests some future research directions to start discussions about the consumer experience enhancement in the era of the Metaverse while eliminating the dark side of the Metaverse. Metaverse is an innovative concept for the field of hospitality. Hence, the characteristics may need a relatively long time to adjust to the needs of different stakeholders especially within emerging economies due to barriers and challenges. This research sheds light on the disruptive potential of the Metaverse within the hospitality industry.

### 5.3. Managerial Implications

The findings of the study have implications for hospitality organisations. Firstly, in the realm of Human Resources (HR), the Metaverse introduces groundbreaking opportunities for HR within the hospitality industry. It revolutionises HR practices by offering immersive training and development experiences, enabling employees to hone their customer service skills, crisis management, and problem-solving abilities (Buhalis, 2019). Additionally, the Metaverse facilitates innovative talent acquisition methods through virtual interviews and assessments (Parsons, 2017). This transformative potential not only contributes to employee skill enhancement but also ensures a highly prepared workforce capable of delivering exceptional service. Embracing these HR advancements is crucial for the hospitality industry to thrive in the evolving digital landscape.

The range of metaverse factors identified in the study suggest that metaverse should be examined holistically throughout innovation adoption research that includes strategy, human resources, technological advancements, and costing issues to appreciate the full impact of Metaverse adoption in hospitality businesses. However, metaverse cannot be fully functional, without sufficient infrastructure and legitimate support from the government (Buhalis *et al.*, 2022), which makes the process of metaverse adoption in emerging economies even more challenging. Hence, practitioners should primarily rely on entrepreneurship and business innovations to explore opportunities for metaverse in the hospitality industry, leading to re-engaging with people, places, and cultures in a sustainable and cost-effective way, which may overcome potential resources limitations in an emerging economy.

The Metaverse introduces an expansion and diversification of target markets. This aligns with the findings of Bibri and Krogstie (2017), who discuss the Metaverse's role in catering to non-relative consumers and the youth demographic, expanding the customer base of tourism and hospitality organisations. In terms of marketing, the Metaverse presents an unprecedented avenue for innovation, and its importance cannot be overstated. One of the standout features is the ability to craft unique product offerings that transcend traditional boundaries. Through the Metaverse, organisations in the hospitality industry can create immersive virtual tours and experiences that captivate and engage their audience in ways previously unattainable. This innovative approach to product development aligns closely with the research by Gursoy *et al.* (2022), who emphasise how such Metaverse-driven innovations have the potential to fundamentally reshape the marketing strategies of hospitality organisations. By offering virtual

tours, travellers can explore destinations, hotels, and attractions from the comfort of their homes. These immersive experiences not only serve as marketing tools but also bridge the gap between inspiration and booking, driving conversion rates higher.

However, it must be noted that Metaverse also brings challenges and threats that can potentially lead to value co-destruction for several hospitality stakeholders in the ecosystem. Metaverse may lead to confusion about what is real and what is not and will blur reality. That leads to a decline in critical thinking and imagination preventing users from reflecting on their experiences. While this uncertainty is expected to the starting of any disruptive innovation (e.g. Internet, mobile phones, smart tourism), still this is an area that organisations that adopt Metaverse need to consider absorbing or mitigate the challenges from Metaverse adoption.

#### **5.4. Limitations and future research**

This qualitative study limits the generalisability of the findings to other emerging economies. Also, the exploration of the Metaverse's application in the hospitality industry within emerging economies faces several limitations, including technological infrastructure disparities, digital literacy gaps, and regulatory frameworks. These challenges may hinder the seamless integration and widespread adoption of the Metaverse technologies. Future research should focus on addressing these barriers by developing inclusive strategies that enhance digital infrastructure, promote digital literacy, and establish clear guidelines for Metaverse engagement. Additionally, investigating the economic implications and sustainability of the Metaverse initiatives in these regions will be crucial for understanding its long-term viability and impact on the global hospitality landscape.

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