Journal of Tourism, Culture, and Management Studies (JTCMS)
Vol. 3, No. 1, Jan – Mar 2026, pp. 1-10
ISSN: 3107-7307, DOI: https://doi.org/10.17051/JTCMS/03.01.01

Digital Transformation in Cultural Tourism Management: Effects on Visitor Engagement and Destination Performance

A.Surendar

Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, India.
Email: surendararavindhan@ieee.org

Article Info

Article history:

Received : 13.11.2025
Revised : 17.12.2025
Accepted : 06.01.2026

Keywords:

Digital transformation,
Cultural tourism management,
Visitor engagement,
Destination performance,
SEM,
Tourism sustainability

ABSTRACT

This paper will discuss how digital transformation projects in the management of cultural tourism affect the visitor experiences and the general performance of the destination. The study is based on the Resource-Based View (RBV) and the Service-Dominant logic, which states that digital technologies, including smart tourism services, social media integration, data-driven personalization, and interactive digital services, are the strategic resources that will help increase visitor interest and, consequently, promote stronger tourism outcomes at destinations. A quantitative research design was followed where the data were collected using a structured questionnaire to 412 domestic and international tourists in the major cultural destinations and the data were processed using a Partial Least Squares Structural Equation Modelling this is the PLS-SEM. Measurement model had good reliability and validity (Cronbachs alpha and Composite reliability are above 0.70; AVE is above 0.50) and the structural model showed that digital transformation has significant positive impacts on visitor engagement ($B = 0.62$, $p = 0.001$) and the performance of the destination ($B = 0.34$, $p = 0.01$). The effect of the visitor engagement on the destination performance (0.49, $p < 0.001$) was also positive and partly mediated between the digital transformation and the performance. The model accounted 38 percent of the variation in visitor engagement and 57 percent of the variation in destination performance which means that the model can predict a lot. The results indicate that strategic digital infrastructure and interactive technologies investment boost the experience value, tourist-destination bonds, and competitive advantage. The proposed study is relevant to the literature on tourism and cultural management as a digitally mediated engagement–performance framework, supported by the MEM digitally, which yields empirical evidence of the validity of the framework, and provides practical recommendations appropriate to the destination manager to use the digital transformation as a sustainable growth driver.

1. INTRODUCTION

Significant changes have surfaced in the management of cultural tourism with the swift development of digital technologies over the years, redefining the manner in which destinations generate value, their engagement with tourists and their ability to compete. With the rise of the so-called smart tourism ecosystem, which is defined by the combination of big data analytics, artificial intelligence (AI), mobile technologies, cloud computing, and interactive digital environments, destinations are now able to improve the level of personalization, efficiency, and experience quality [1], [2]. Digital transformation in cultural tourism goes beyond the utilisation of technology; it is strategic restructuring of cultural tourism processes and service provision and stakeholder interaction paradigms to enhance visitor experiences and destination performances [5], [10]. As the cultural tourism industry transitions more towards digital interfaces to deliver heritage narratives and control tourist numbers, digital capabilities have emerged as key strategic resources in the wider paradigm of smart tourism [3], [6], [11].

Digital technologies like intelligent recommendation engines, social media interaction systems, blockchain-based service systems and smart tourism app are at the centre of stage of promoting interactive and immersive tourist experiences [7], [13]. Communication via social media, user generated content, and real time

digital interaction systems have a profound impact on the development of the destination image and behaviour intentions [8], [9]. According to the recent research, it is indicated that smart tourism technologies can improve tourist satisfaction, engagement, and place attachment, which in turn increases the destination competitiveness [12], [13]. In addition, culturally oriented destinations can use data-driven transformation initiatives to personalise the services their clients use and monitor their performance (assisted by big data and advanced analytics) [2], [5]. The overall trend in these developments highlights the evolving strategic relevance of digital change when it comes to enhancing experiential and managerial performance in the context of cultural tourism.

Nevertheless, there is a critical research gap despite the growing amount of literature on smart tourism and the digital innovation. Most of the literature produced so far has centred on either the adoption of technology and smart destination systems [3], [6], [11] or visitor intentions and memorable experiences [9], [13]. Nevertheless, there has been little empirical studies that have examined the effects of digital transformation towards visitor engagement and destination performance in an integrated structural context. Specifically, the critical area of lack of SEM-based empirical support to the mediating role of visitor engagement to verify the digital transformation initiatives to quantifiable destination performance outcomes. This gap needs to be addressed in order to further theoretical development and managerial implications that can be used in action.

In based on that, the main aim of the research is to investigate how digital transformation influences visitor experience and destination success within the realms of cultural tourism. Namely, the research will answer the following questions: (1) how digital transformation has a direct impact on the engagement of the visitors; (2) how digital transformation affects the destination performance; (3) how the visitor engagement impacts the destination performance; (4) how does visitor engagement mediate the effect on destination performance through a Structural Equation Modelling (SEM) approach. This study allows to add to the growing body of literature on smart tourism and the competitiveness of cultural destinations by empirically validating these relationships. The rest of the paper has the following structure. Section 2 discusses the literature related to the topic and formulating the conceptual framework and hypotheses. Section 3 provides the research methodology such as design of the measurement and SEM procedures. The data analysis and results are available in section 4. Findings are discussed in section 5 with theoretical and managerial implications. Lastly, Sections 6 and 7 close the research by outlining the limitations and future research directions.

2. Literature Review and Theoretical Framework

Digital transformation of cultural tourism is the strategic use of modern digital technologies in the management of marriages as destination, interpreting heritage, visitor services, and coordinating stakeholders to increase value generation and competitiveness. In a smart tourism paradigm, the concept of digital transformation includes the implementation of big data analytics, artificial intelligence (AI), mobile apps, cloud technologies, augmented and virtual reality (AR/VR), and interactive communication systems helping to make real-time decisions and guide a particular visitor [1]-[3]. Digital transformation is more of a systemic organisational change redefining the processes of service, visitor interaction patterns, and the performance appraisal systems as opposed to the adoption of technologies [5], [10]. At cultural destinations, digital devices have been used as an immersive storytelling medium, for ticketing, crowdsourcing, crowd controls, digital mapping, and in interactive museums, along with social media and user-generated content platforms help keep up constant communication between destinations and customers, enhancing digital presence and interaction [8], [9]. These integrated technologies constitute a smart tourism ecosystem which is typified by integration of stakeholders, services and value co-creation which are supported by technology [3], [6], [11].

Visitor engagement has also become one of the key constructs in tourism studies and it captures the extent of cognitive, emotional and behavioural commitment by tourists to their tourism experiences. Cognitive, emotional, and behavioural forms of engagement along with the attention, curiosity, information processing, excitement, attachment, and satisfaction, participation, sharing, advocacy, and revisit intentions [9], [12]. In a digitally empowered tourism setting, interaction is enhanced with interactive platforms, gamification, tailoring, and AI-enhanced suggestions [7], [13]. Smart tourism technologies augment high levels of immersion and meaningful interaction, resulting into heightened place attachment and positive behavioural results [12], [13]. Engagement therefore serves as one of the most important tools where digital transformation programmes are converted into experiential and relationship value to visitors.

Destination performance is a measure of the overall interest of a tourism destination in terms of meeting economic, competitive and sustainability goals. Financial performance incorporates

variables like visitor arrival, tourism money, occupancy levels and economic impact. Competitive positioning is associated with brand equity, destination image and diversification of tourism markets which are becoming more and more digitalized [8], [13]. Sustainability performance will involve environmental management, cultural conservation, and socio-economic advantages in the host communities in the long run [11]. Digital transformation helps to achieve better performance of destinations through increased operational efficiency, data-driven strategic planning, online sustenance of the brand, and creating better visitor experiences [5], [10]. Smart systems and analytics allow destinations to track measures of performance, technology can ensure resources are distributed efficiently, and can react in real time to visitor demands, building on competitive edge.

Three notions of human behaviour are used to support this study. Resource-Based View (RBV) is based on the assumption that both firms can gain access to sustainable competitive advantage by possessing valuable, rare, inimitable, and non-substitutable resources. The use of digital infrastructure, data analysis opportunities, and intelligent platforms are strategic assets that can be used to increase the level of visitor engagement and positively impact performance outcomes [1], [3]. Technology Acceptance Model (TAM) is the statement explaining the connexion between perceived usefulness and ease of use and leadership to digital services adoption by people, which implies that effective online tools promote interaction and engagement of visitors [7], [13]. Service-Dominant Logic also prioritises value co-creation in terms of interactive processes between stakeholders which underscores the use of the digital platform in enabling cooperation between destinations and visitors. The combination of these theoretical approaches offers an all-inclusive theory that connects digital transformation, visitor engagement, and destination performance.

The conceptual framework proposed in the present study is based on the literature reviewed above and theoretical arguments, which propose the following conceptual framework (Figure 1) that represents the speculated relations among digital transformation, visitor engagement, and destination performance. Digital transformation boosts interactive communication, personalization and thriving cultural experience hence strengthening the cognitive and emotional engagement among visitors; hence it is transpired that digital transformation engages the visitors positively (H1). In an RBV way of thinking, digital capabilities are considered strategic resources that enhance competitiveness and operational efficiency resulting to the hypothesis that digital transformation has a positive estimation on destination performance (H2). The involvement of the visitors also has a better chance of loyalty, word of mouth and intentions to visit again which prove the hypothesis that visitor engagement positively affects the destination performance (H3). In line with Service-Dominant Logic, the digital transformation will enhance the performance of the destination by developing value co-creation processes that manifest through visitor engagement and hence visitor engagement is proposed to be the mediating variable in the relationship between digital transformation and the destination performance (H4).

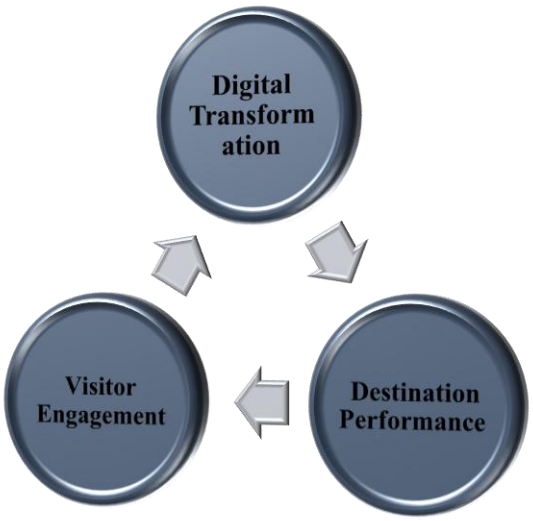

Fig. 1. Conceptual Model of Digital Transformation, Visitor Engagement, and Destination Performance

3. RESEARCH METHODOLOGY

This paper incorporates a quantitative approach to meaning that the research will be empirical to establish the relationship linking digital transformation, visitor attendance, and destination performance within cultural tourism environments. To collect primary data with a focus on the respondents at one time, a survey approach was utilised to use a cross-sectional survey design that would provide an opportunity to test the proposed conceptual framework through the application of Structural Equation Modelling (SEM). The quantitative method can be used because of the purpose of the study to test hypothesised relationships and determine the reliability of the measurement, its validity, and the significance of structural path. The data used was obtained by analysing the domestic and foreign tourists visiting the cultural heritage sites which are actively providing digital services in terms of mobile apps, online booking applications, smart guides and social media interaction networks. Moreover, fewer percentages of destination management staff were sampled to obtain managerial understanding of practises of digital transformation. A self-administered and structured questionnaire was conducted online and on-site. The reason behind the use of a non-probability purposive sampling method was that the respondents had a prior experience of using the services of digital tourism at the destination. Following data screening to ensure completeness and uniformity of the response, 412 valid responses finally made it to the analysis. The sample size is larger than the minimal (recommended 200–300 cases) threshold of SEM analysis and meets the so-called 10-times rule typically used in PLS-SEM and guarantees sufficient statistical capacity and model stability.

The survey tool included three broad parts: demographics, perception about digital transformation, visitor engagement and destination performance. Measurement of all constructs was done with a 7-point Likert scale with 1 denoting strongly disagree, 7 strongly agree such that more sensitive and variance in responses could be measured. The measurement items were based on the prior research on smart tourism, digital transformation, and tourism engagement studies, and slightly adjusted to the context of the cultural tourism environment.

Five reflective indicators (DT1- DT5) were implemented to operationalize Digital Transformation, which included perceptions about smart technologies, personalization, quality of digital infrastructure, access to real-time information and incorporation of AI-based services. The six items (VE1-VE6) that determined Visitor Engagement was that based on cognitive involvement, emotional attachment, interaction, participation, and advocacy behaviour. The outcome that was measured was Destination Performance, which was measured using five items (DP1-DP 5) that reflected a perception of destination competitiveness, service effectiveness, visitor satisfaction results, reputation, and sustainability-oriented performance. The questionnaire was discussed with the help of academic experts of the tourism management and pilot-tested with a limited group of respondents to verify the clarity, content validity, and reliability of the questions. A data collection was analysed through Partial Least Squares Structural Equation Modelling (PLS-SEM), because it is suitable in both predictive and exploratory research designs that use latent constructs and mediation analysis. The methodological processes involved the evaluation of the measurement model (reliability and validity) and then structural model evaluation to cheque the hypotheses put.

4. Data Analysis and Results

Structural Equation Modelling Partial Least Squares (PLS-SEM) was used to address the measurement and the structural model, accompanied by bootstrapping (5,000 resamples). It was analysed in two steps, the first entails evaluation of reliability and validity and secondly is hypothesis testing and predictive evaluation. Internal consistency analysis established that reliability was good among all constructs. Cronbach alpha values were higher than it should be, which 0.70 is and also the composite reliability (CR) values were higher than this which is 0.70 which means that there is a great internal consistency. As shown in Table 1, Digital Transformation (α = 0.89, CR = 0.92), Visitor Engagement (α = 0.91, CR = 0.93) and Destination Performance (α = 0.88, CR = 0.91) showed high levels of reliability. Such findings show that measurement items are always validations of their latent constructs.

Table 1. Reliability and Internal Consistency Results

Construct	Cronbach's Alpha	Composite Reliability
Digital Transformation	0.89	0.92
Visitor Engagement	0.91	0.93
Destination Performance	0.88	0.91

In visual aids of internal consistency, (Figure 2) shows the comparative scores of reliability of all the constructs, which affirms that the scores of both Cronbach alpha and CR are above the desirable limit.

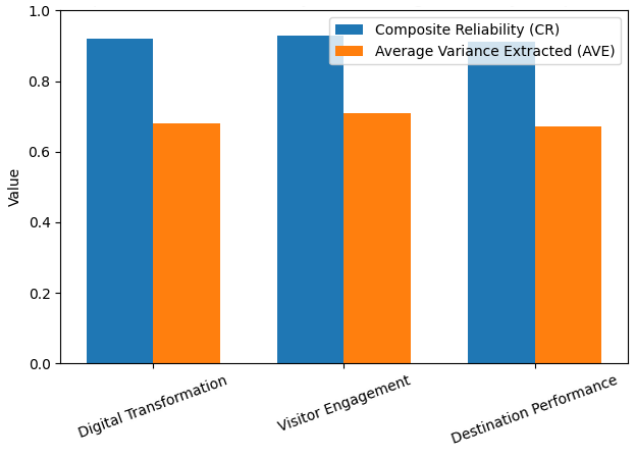

Fig. 2. Comparison of Composite Reliability (CR) and Average Variance Extracted (AVE) Across Study Constructs.

Outer loading and Average Variance Extracted (AVE) was used to evaluate convergent validity. The indicator loadings of all indicators were more than 0.70, meeting the recommended requirements. All constructs had a value over 0.50 of AVE which means that over 50% of the variance in indicators are due to the latent variable of the indicator. Table 2 presents the summarised results.

Table 2. Convergent Validity Results

Construct	Indicator	Loading	AVE
DT	DT1	0.81	0.68
	DT2	0.84	
	DT3	0.79	
	DT4	0.86	
	DT5	0.83	
VE	VE1	0.85	0.71
	VE2	0.88	
	VE3	0.82	
	VE4	0.84	
	VE5	0.87	
	VE6	0.83	
DP	DP1	0.80	0.67
	DP2	0.83	
	DP3	0.85	
	DP4	0.79	
	DP5	0.82	

The Fornell Larcker criterion also supported the presence of discriminant validity in the sense that the square root of AVE of each construct was greater than its inter-construct correlations. Also, the HTMT ratios were lower than the conservative level of 0.85 and this gave evidence of sufficient discriminant validity across constructs. Variable Inflation Factor (VIF) was used to measure multicollinearity and the values of all of them fall below 3.5 which is significantly lower than the acceptable count of 5.0 and therefore there are no issues with multicollinearity.

After the confirmation of the measurement model, the structural model was tested. Bootstrapping (5,000 subsamples) was used to compute path coefficients, t-values and p-values. The rest of Table 3 indicates that Digital Transformation had a considerable positive impact on Visitor Engagement ($\beta = 0.62$, $t = 14.85$, $p = 0.001$) and H1 was proved correct. H2 was also supported since Destination Performance was directly positively impacted by Digital Transformation ($\beta = 0.34$, $t = 6.21$, $p = 0.01$). Contributing to H3, Visitor Engagement also had a considerable impact on

Performance of destinations (β= 0.49, = 10.73, = 0.001). Mediation analysis proved that the relationship between Digital Transformation and Destination Performance was partially mediated by Visitor Engagement as it confirmed H4.

Table 3. Structural Path Results

Hypothesis	Path	β	t-value	p-value	Result
H1	DT → VE	0.62	14.85	<0.001	Supported
H2	DT → DP	0.34	6.21	<0.01	Supported
H3	VE → DP	0.49	10.73	<0.001	Supported
H4	DT → VE → DP (Indirect Effect)	0.30	8.94	<0.001	Supported

The model was dominent in its explanatory variable. Visitor Engagement had a $R^2$of 0.38, which implies that Digital Transformation can account for 38 percent of the variance. The combined Digital Transformation and Visitor Engagement had a R^2value of 0.57 which implies that 57% of the variance in the case of Destination Performance is explained by the two variables. The results are depicted in Figure 1, which displays the standard model of the structure with path coefficients and standardised and R^2. The analysis using the effect size (f^2) showed that Visitor Engagement had a medium-to-large effect on Destination Performance (f^2=0.29) and Digital Transformation had a large effect on Visitor Engagement (f^2=0.42). Digital Transformation had a medium impact on Thecuation in the case of Destination Performance (f^2= 0.16 as presented in Table 4).

Table 4. Effect Size Results

Path	f^2 Value	Effect Size
DT → VE	0.42	Large
DT → DP	0.16	Medium
VE → DP	0.29	Medium-Large

The Stone-Geisser Q^2test was used to determine predictive relevance and all of the Q^2were positive, which is a good predictive. The model fit was judged with SRMR where the value was 0.061 and this value was less than the recommended value 0.08, and therefore it fit the model well. In order to graphically generalise structural relationships and the explained variance, in Figure 3 we provide the structural model with standardised coefficients and in Figure 4 the explained variance (R^2) of the endogenous constructs. All in all, the SEM findings confirm the presence of a major positive contribution to the performance of destinations and visitor involvement achieved via digital transformation, where engagement is the mediating factor.

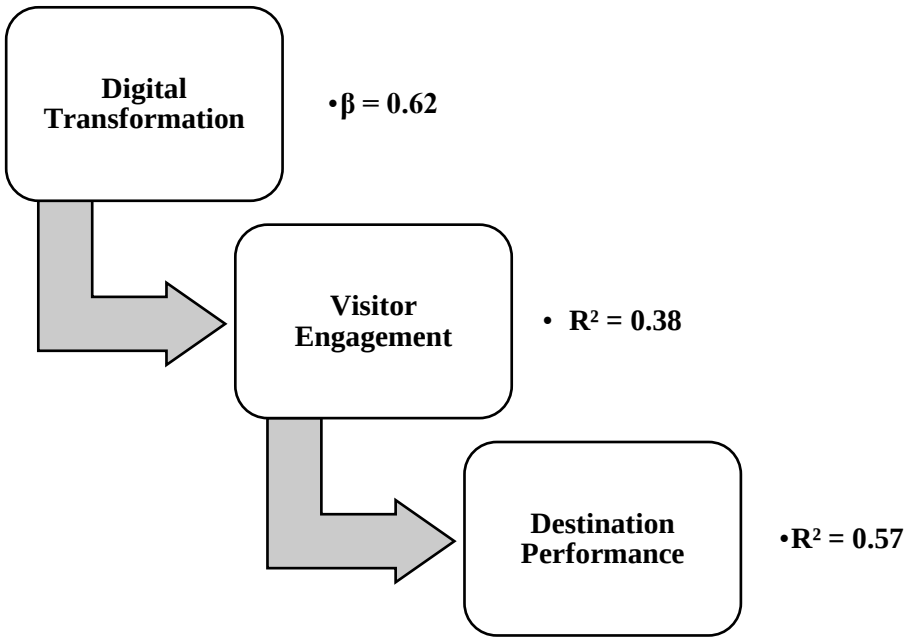

Fig. 3. Structural Equation Model Showing Standardized Path Coefficients and Explained Variance (R^2)

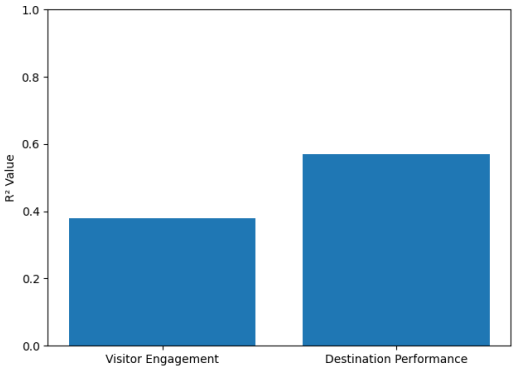

Fig. 4. Coefficient of Determination (R^2) for Visitor Engagement and Destination Performance.

5. DISCUSSION

The results of the research work give good empirical evidence regarding the correlation among the digital transformation, the visitor engagement, as well as the destination performance in the settings of cultural tourism. The notable beneficial impact of the digital change on visitor engagement proves that the strategic use of smart technologies, AI-powered services, and interactive online engines make tourists more interested in the destination in terms of cognition, emotions, and behaviour. The path coefficient (β = 0.62) is relatively high, which indicates that the digital capabilities are a focal point in influencing the creation of meaningful and immersive tourism experiences. This finding reveals that cultural destinations that are using digital tools in an effective manner are better placed in terms of creating greater interactivity to visitors and the creation of experience value. The strategic importance of digital initiatives other than that of enhancing experience is further emphasised by the direct impact of digital transformation on destination performance (β = 0.34). Operational efficiency, better brand visibility, and competitive positioning are based on the use of digital infrastructure, real-time analytics, and built-in communication systems. These results are in line with previous studies of smart tourism that highlight that digital innovation enhances destination competitiveness and means of service delivery. In comparison to the previous research that emphasised mostly on behavioural intentions or destination image, the current study contributes to the literature in showing that performance implications in a structural equation modelling framework are measurable.

The impact of visitor engagement on destination performance was likewise found to be strong and positive (β = 0.49) supporting the idea that an engaged tourist has higher chances of making contribution to destination economic and reputation-related outcomes via revisit intentions, positive word-of-mouth, and social media promotion. This is in line with the theory of engagement in tourism which argues that emotional and behavioural attachment of a destination turns to loyal and visitor's performance. The significant $R^2$of destination performance (0.57) shows that engagement is a major explanatory factor in digital facilitated cultural tourism settings. Significantly, the mediation analysis supports that engagement of visitors mediate the connexion between digital transformation and destination performance in a partial manner. This result indicates that although the direct positive effect of digital technologies on performance is observed, much of its effect is achieved through engagement-based processes of value co-creation. That is, digital transformation in itself is not enough without creating a meaningful interaction with visitors. The mediating factor gives a better understanding of the operation of smart tourism ecosystems: smart technology improves engagement, and engagement leads to performance. The findings hence confirm the merged approach suggested in this paper.

Theoretically, the results add to the literature on cultural tourism management through synthesising the Resource-Based View, Technology Acceptance Model, and Service-Dominant Logic into a single empirical model. Digital capabilities become strategic resources that develop competitive advantage (RBV) and visitor usage of digital platforms display technology acceptance dynamics (TAM). Furthermore, the mediating factor of engagement helps in reinforcing Service-Dominant Logic where the focus is made on value co-creation between destinations and visitors. The empirical validation of this digitally mediated pathway between engagement and performance makes this digital study contributes to the knowledge regarding the ways in which cultural destinations can capitalise digitally on the process of growth and sustainability and foster improved competitiveness in a tourism industry that is becoming more technologically intensive.

6. Practical and Managerial Implications

The results of the research offer valuable practical implications to the destination manager, policy makers and culture tourism stakeholders wishing to utilise digital change as a propensity toward enhancing performance and engagement. First, the immense role of a digital transformation in visitors and the performance of a destination shows the necessity of a strategic investment in a digital infrastructure. The main cultural destinations must focus on the integration of smart platforms of tourism, fast networking, mobile solutions, online ticketing tools, and cloud-based databases. The investments must not to be confined in terms of acquiring technological tools, but must go into

training of the staff, integrating the system, ensuring system security, and development of digital capabilities, which are long-term and can be scaled to secure sustainability and scalability. Second, it is relevant to intensify interactive online experiences to improve the visitor interaction. These immersive technologies, which should be implemented and used in destinations, include: augmented reality (AR), virtual reality (VR), AI-based virtual guides, and interactive storytelling apps which can be used to enhance cultural heritage interpretation. The importance of gamification, customized according to the preferences of a person, and the use of multilingual online interfaces can also enhance cognitive and emotional engagement. Given that the interaction between digital transformation and performance is connected through visitor engagement, the managers must concentrate on building digital experiences that induce participation, sharing, and advocacy instead of just being able to provide static information.

Third, strategic decision-making can be greatly enhanced with the help of artificial intelligence and the use of social media analytics. Sentiment analysis driven by AI, visitor analysis metrics, and prediction analytics enable destinations to know the preferences of the visitors and observe new tendencies and offer personalised services on the fly. The social media involvement level, user-created content review, and online commenting systems may present a useful idea on the visitor satisfaction and the destination image. Through systematic interpretation of these sources of data, the destination managers are able to improve marketing strategies, optimise service personalization and competitive positioning. Fourth, the findings highlight the significance of performance monitoring systems based on data. These cultural destinations ought to develop all inclusive digital dashboards that will monitor the key performance metrics (KPIs) which include level of engagement by visitors with the property, online reputation score, revisit rate, revenues performance, and sustainability measures. The incorporation of the big data analytics in the performance assessment systems will facilitate the ongoing improvement and evidence-based policy implementation. The adaptive management practises are also supported by real-time monitoring systems especially in visitor management and the conservation of cultural heritage assets.

Lastly, smart tourism governance necessitates joint and combined governance systems as a transition. The appropriate digital change is tied to the collaboration of government bodies, destination management organisations (DMOs), technology partners, local populations, and cultural institutions. The policies that policymakers implement to enhance digital tourism should be made in accordance with the sustainability objectives, this is because preserving culture is a key policy, and the policy of innovation is also essential. Long-term competitiveness will be bolstered by creation of regulatory systems that enhance data safety, ethical application of AI and accessible digital services. Through their adoption of the approach of holistic smart governance, cultural tourism destinations have the ability to sustain engagement and performance gains with the coming of digital transformation initiatives whilst considering cultural integrity as well as community wellbeing.

7. Limitations and Future Research

In spite of its theoretical and practical contributions, this research has a number of limitations that need to be recognised. First was that the study was a cross-sectional study design, thus gathering a single point in time. Although it is suitable in the study of structural relationship through the application of SEM, it restricts the research to dynamic changes in the digital transformation programmes, visitor involvement trend, and performance outcomes of the destinations with time. The world of digital technologies changes quickly and the expectations of visitors are continuously shifting, so the longitudinal research design would offer greater understanding of the cause and effect relationships and the time-related outcomes. Second, the reference of the study is limited to the geographical focus of the analysis on the cultural tourism destinations of a particular regional context. The results as meaningful implications seem sound, but the level of the generalizability of findings could be limited with the difference in cultures, technologies, and managerial practises on the destinations. The level of digital readiness, governance structure, and the visitor behaviour pattern differ greatly among countries and regions. To reflect the strength of the model proposed in this study and address the contextual moderating effects, future research should focus on the multi-country or cross-cultural comparative research.

Third, this research depended mostly on self-reported survey data, which is susceptible to common method bias, social desirability bias and perceptual error. Even though statistical process was used to reduce these bias, objective performance metrics, i.e. the number of actual visitors or revenue statistics, or digital engagement analytics, were not directly integrated into the structural model. Future studies could incorporate secondary performance indicators, behavioral tracking measures or digital analytics dashboard in order to bolster empirical validity. Regarding the

methodological development, new research can be based on a longitudinal SEM study approach to examine how digital transformation strategies can affect engagement and performance patterns over a period. Also, a hybrid model of SEM and Artificial Neural Network (ANN) should be considered in order to get improved predictive power and account to possible nonlinear contingencies between constructs. SEM is good to test the theories and modelling causation but ANN is able to enhance the predictive strength and unravelling process of complex interaction effects in smart tourism ecosystems.

Lastly, the model could be extended in future studies through the inclusion of moderating factors, including digital literacy, destination type, the cultural authenticity, or sustainability orientation. Profiles of comparative analysis between developed and emerging tourism markets would offer a better insight into the effectiveness of digital transformation strategies to operate under different institutional and technological prerequisites. These limitations can be overcome to help future studies contribute to the existing knowledge on digitally motivated engagement and performance processes in the management of cultural tourism.

CONCLUSION

The research paper sought to analyse the role of digital change on visitor experience and destination accomplishments in the cultural tourism setting by employing a Structural Equation Modelling (SEM). In particular, it examined the direct impacts of digital transformation on destination performance and visitor engagement and mediating impacts of the latter. The empirical results proved that digital transformation has a great positive impact on visitor engagement and a direct positive impact on destination performance, whereas visitor engagement has a strong positive effect on the performance outcomes. The high levels of R 2 prove that the presented model can explain a significant amount of variance in engagement and performance, which in turn confirms the strength and predictive power of the SEM model. Technological practises through the incorporation of the Resource-Based View, Technology Acceptance Model, and Service-Dominant Logic into a single structural model, the current research will offer value to the existing body of literature in tourism and cultural management by empirically proving the role of digital capabilities as strategic resources that facilitate value co-creation and competitive advantage. In conclusion, the findings emphasise that digital transformation is not a technological change, but it is a strategic factor of sustainable destination performance and allows cultural tourism destinations to become more involved, competitive, and grow in the long-term within an ever-growing digitalized tourism environment.

REFERENCES

1. Buhalis, D., &Amaranggana, A. (2014, December). Smart tourism destinations enhancing tourism experience through personalisation of services. In *Information and communication technologies in tourism 2015: Proceedings of the international conference in Lugano, Switzerland, February 3-6, 2015* (pp. 377-389). Cham: Springer International Publishing.
2. Cao, R., & Cao, F. (2025). The Digital Transformation of Traditional Cultural Tourism Driven by Big Data. *International Journal of Agricultural and Environmental Information Systems (IJAEIS)*, *16*(1), 1-16.
3. Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: foundations and developments. *Electronic markets*, *25*(3), 179-188.
4. Kitsios, F., Mitsopoulou, E., Moustaka, E., &Kamariotou, M. (2022). User-Generated Content behavior and digital tourism services: A SEM-neural network model for information trust in social networking sites. *International Journal of Information Management Data Insights*, *2*(1), 100056.
5. Madzík, P., Falát, L., Copuš, L., & Valeri, M. (2023). Digital transformation in tourism: bibliometric literature review based on machine learning approach. *European Journal of Innovation Management*, *26*(7), 177-205.
6. Mehraliyev, F., Chan, I. C. C., Choi, Y., Koseoglu, M. A., & Law, R. (2020). A state-of-the-art review of smart tourism research. *Journal of Travel & Tourism Marketing*, *37*(1), 78-91.
7. Orea-Giner, A., Muñoz-Mazón, A., Villacé-Molinero, T., & Fuentes-Moraleda, L. (2022). Cultural tourist and user experience with artificial intelligence: A holistic perspective from the Industry 5.0 approach. *Journal of Tourism Futures*.
8. Pachucki, C., Grohs, R., & Scholl-Grissemann, U. (2022). Is nothing like before? COVID-19–evoked changes to tourism destination social media communication. *Journal of Destination Marketing & Management*, *23*, 100692.
9. Rasoolimanesh, S. M., Seyfi, S., Hall, C. M., &Hatamifar, P. (2021). Understanding memorable tourism experiences and behavioural intentions of heritage tourists. *Journal of Destination Marketing & Management*, *21*, 100621.
10. Ratna, S., Saide, S., Putri, A. M., Indrajit, R. E., &Muwardi, D. (2024). Digital transformation

in tourism and hospitality industry: A literature review of blockchain, financial technology, and knowledge management. *EuroMed Journal of Business*, *19*(1), 84-112.

11. Shafiee, S., Ghatari, A. R., Hasanzadeh, A., &Jahanyan, S. (2019). Developing a model for sustainable smart tourism destinations: A systematic review. *Tourism Management Perspectives*, *31*, 287-300.
12. Singh, S., Lee, S., & Tsai, K. (2025). The impact of smart tourism technologies on engagement, experiences, and place attachment: A focused study with gamification as the moderator. *Journal of Destination Marketing & Management*, *36*, 100997.
13. Tavitiyaman, P., Qu, H., Tsang, W. S. L., & Lam, C. W. R. (2021). The influence of smart tourism applications on perceived destination image and behavioral intention: The moderating role of information search behavior. *Journal of Hospitality and Tourism Management*, *46*, 476-487.
14. Ye, B. H., Ye, H., & Law, R. (2020). Systematic review of smart tourism research. *Sustainability*, *12*(8), 3401.