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Digital transformation using marketing strategies in cultural organizations and diffusion of knowledge through technology, a systematic literature review

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Abstract

This research aims to systematically identify and evaluate the adoption of digital transformation and innovation in marketing strategies. This research identifies and systematically reviews prior literature and provides research agendas for the future. The researchers in this study used the systematic literature review (SLR) method to select 81 studies from Web of Science, Scopus, Science Direct, Wiley Online Library, and Emerald Insight. This study concentrated on adopting and implementing the most recent digital technologies in cultural organizations, such as museums, on enhancing the visitor experience through effective digital marketing strategies. The analysis integrates the benefits of adopting emerging technologies for museums to design effective social media marketing strategies. The findings emphasize the transformative potential of digitalization in the tourism industry to enhance visitors' experience. Moreover, utilizing digitally created content on social media platforms is a valuable marketing strategy for engaging and interacting with current and potential visitors. In this study, the research gaps, limitations, and prospective research avenues contribute to the advancement of the digitalization of marketing.

Keywords: Cultural organizations, museums, digital marketing, location-based marketing, social media

Introduction

Due to its significant impact on processes, technological integration in production and services has attracted the interest of academics. In contrast, digital conversion, also known as digitalization, has attracted the attention of practitioners due to its enhancement of process efficiency and effective utilization of resources (Ritter & Pedersen, 2020). Digital transformation enables businesses to implement initiatives to enhance process efficiency and resource management. 70% of digital transformational projects fail to meet their objectives despite massive investments, even though organizations undertake initiatives from various economic, environmental, and social perspectives to facilitate sustainable performance. It has been demonstrated that data management requires tangible operations that consume energy, generates carbon emissions, and necessitate water usage (ElMassah & Mohieldin, 2020). It has been reported that digital transformation and sustainable performance have a positive relationship (Di Vaio & Varriale, 2020; Dubey et al., 2020; Kamble, Gunasekaran, &

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Gawankar, 2020). There are differing opinions regarding the relationship between digitalization and sustainability, but digital transformation and sustainable performance have a positive relationship.

It has been reported that digital transformation does not contribute to achieving sustainable performance (Ahmadova et al., 2022; Kohtamäki et al., 2020). New risks can arise for organizations as a result of digital transformation. Priority must be given to researching various facets of digital transformation to explain the phenomenon of sustainable performance to provide passage for academicians and practitioners. The prior literature has demonstrated the linear relationship between digital transformation and sustainable performance, which has led to the formulation of the transformation-performance association. According to Dubey et al.'s (2020) research, firms' organizational and dynamic capabilities enable them to initiate digital transformation, influencing their future sustainable performance. According to Mikalef, van de Wetering, and Krogstie (2021) and Chatterjee et al. (2023), the relationship between organizational capabilities and dynamic capabilities created by digital transformation plays a role in achieving sustainable performance (Papadopoulos et al., 2022). Any organization's digitalization necessitates modifying existing practices and procedures to maintain the efficacy and effectiveness of the carried-out processes. The organizational practices and routines impede digital transformation, and resistance to adopting digitalization may result in a decline in efficacy (Mikalef et al., 2021).

Currently, the business world is digitally equipped due to its significant function in performance achievement, which has affected every person in every aspect of the planet. It has been observed that corporations and individuals encounter emerging and newly complex and intelligent technological advancements in their daily lives, from PC terminals to the adoption and implementation of robotics in every field. The vast array of communication channels, including personal communication, advertising, social networking sites, and learning, enables firms and individuals to become more interconnected and swiftly share information for business-related decision-making. The firms must adopt the most up-to-date technological equipment and practices to drive their businesses and win the war; otherwise, they risk being left behind. Additionally, organizations must be receptive to transforming existing practices and routines to gain a competitive edge and enhance their businesses. As marketing is considered a function that designs, promotes, develops, and sells products or services for existing or acquires new consumers through the effective digital wave that addresses marketing practices, a strategic approach may be utilized to respond to the market (Bist et al., 2022). The firms' marketing strategies are based on the most up-to-date available technologies, which alter extant practices and lead to the adoption of digital marketing.

Digital aspects add value to production and business operations by reengineering existing processes and practices by incorporating and implementing digital technologies that facilitate various business operations. Digital technologies enable the interaction between suppliers, consumers, and competitors by providing uniqueness. Digital technologies also aid in attaining competitive advantage by altering the exploitation of core capabilities and generating new skills, which contribute to achieving sustainability. The non-digital means of conducting business practices, such as marketing to promote products or services, plays a crucial role in the business. It is well documented that print, broadcast, direct mail, and telephone are the traditional marketing channels that generate brand awareness. The marketing approach is determined by a company's financial fortitude, with digitalizing the marketing strategy expected to yield large-scale benefits. Digital marketing is defined as developing objectives, integration, and measurable messaging that attracts and acquires customers. The primary objective is to promote the companies, influence consumer preferences, and increase sales. The terms online marketing,



internet marketing, and web marketing are used interchangeably to describe digital marketing's online perspective. This is the collection of data-driven marketing initiatives designed to promote the product or service and create a digital brand image (Busca & Bertrandias, 2020).

According to Maciariello (2009), marketing and innovation contribute to organizational performance and generate results; everything else is merely cost. Customers can be acquired through an effective marketing strategy, and a novel concept in a market has the potential to generate demand and acquire customers. Innovation is also believed to be the primary driver of economic development, as the emergence of new ideas or the adoption of technology to provide services or produce goods increases business process efficiency. Businesses and policymakers view marketing and innovation as essential for economic growth. The implementation of digital marketing, the use of social networking sites, advertisements on social media, live broadcasts, and advertising videos in place of traditional media is anticipated to have enormous repercussions. The level of engagement and interaction of social influencers during live streams contributes to consumer acquisition, which was not possible before the emergence of social media and digital transformation, which have altered the scope and nature of marketing strategies. Economic growth is influenced by digital transformation and innovation, and digitalization impacts marketing practices (Gillpatrick, 2019).

"digital natives" refers to individuals born after the turn of the 20th century (Bennett, 2012). In recent decades, digital technology has spread to every corner of the globe. Digital natives recognize and utilize their digital environment through mobile phones, tablets, and the Internet to communicate, obtain information, and learn. This trend is followed by incorporating advanced technologies in museums and cultural organizations in general, as it achieves immediacy and resource conservation (Liao, Zhao, & Sun, 2020; Parsehyan, 2020).

In addition to the technological revolution, the corona virus pandemic unexpectedly accelerated the digital expansion of cultural production, commodities, and services. Due to digital innovation, many cultural institutions have remained open during national lockdowns. The pandemic proved to be a significant contributor to the digital acceleration. These institutions assumed the responsibility of cultural broadcasting and reached out to individuals who lacked social interaction, educational opportunities, and connection (Ullberg, 2020). The coronavirus pandemic affected the digital transformation of marketing strategies (Dash & Chakraborty, 2021). Numerous cultural productions and services may be offered for free or at a fee. To avoid losing long-term contact with their audiences, major cultural organizations worldwide have adopted or implemented online practices and digital media in a very brief period (Park, Heo, & Kim, 2021).

In the past two years, epidemic uncertainties and lockdowns have accelerated the digital transformation process in many museums. "digital transformation" refers to a contemporary context in which digital practices, technologies, and ideas permeate all levels of a museum's operations and activities (Mason, 2022). Business practices and digital technology are anticipated to transform society and influence the competitive landscape fundamentally. The most important aspect of reforming business practices is the impact of digital technologies on marketing applications and the global nature of markets (Gillpatrick, 2019). This digital transformation can take various forms, such as allowing museum visitors to use smartphones or tablets to enhance their experience, digitizing a collection and making it accessible online, or interacting with individuals via online social channels before their visits (Axiell, 2016). Investing in digital resources and developing multimedia for more direct and multi-channel engagement was considered essential to survive cultural infrastructures and improve their relationship with visitors.

This study investigates the theoretical divide in the use of digital transformation and marketing strategies in cultural organizations, which includes a lack of established theoretical frameworks, scant research on audience behavior, and a paucity of literature on implementation and impact. This study aims to develop a deeper theoretical understanding, identify effective digital marketing strategies, identify and overcome practical challenges, and assess the influence of digital marketing on audience engagement, participation, and revenue generation. In an increasingly digital world, addressing these issues could contribute to a greater understanding of digital transformation and marketing strategies' role in the cultural sector and the development of more effective strategies for audience engagement and revenue generation among cultural organizations.

This investigation seeks to answer the following research questions (RQs). These are listed below:

RQ1. *What is the current status and profile of research on digitalization and its implementation and adoption?*

RQ2. *What are the Key Thematic areas in research on digital transformation?*

RQ3. *What is the knowledge gap in this research area, and what are future research avenues to advance the research on context?*

The RQ1 aims to emphasize the characteristics of digital transformation literature, the publication frequency over time, the authors and journals associated with the information, the research methodology, and the country and industry in which the research was conducted. The objective of RQ2 is to identify and synthesize all the existing empirical and theoretical contributions of digitalization adoption and implementation in various contexts to identify the key themes of digital transformation. The RQ3 seeks to address the knowledge gap in assessing digital transformation, the limitations in research, and the gaps in current knowledge and to suggest future research avenues for further advances in knowledge on this topic. This research utilized a systematic literature review (SLR) to answer the study's questions, as this method was deemed the most suitable for systematically managing the diversity of knowledge that has been contributed to the digitalization research field to date. In this regard, the researchers in this study identify, review, synthesize, and assess the existing research on digital transformation for theoretical contributions that influence policy and practice.

This study aims to provide a novel contribution to the existing literature from various perspectives. It is one of the first research efforts to present the systemic and synthesized knowledge of the diverse literature on digitalization that multiple organizations should adopt to conduct their operations. The synthesis of empirical efforts encourages academicians and researchers to advance scholarly work in digital adoption and the generalizability of extant empirical evidence in various contexts, such as industry, culture, and geographical perspectives. In addition to presenting new research avenues in multiple contexts, this study is novel in evaluating the contents and contributions of existing literature. In the effort to determine what is known and what is unknown in this research area, concrete suggestions for expanding the knowledge on this research topic are presented.

This research paper is organized as follows: the methodology section describes the SLR methodology in detail. The subsequent section presents the results, followed by a detailed descriptive analysis, a content analysis of the congruent studies to delineate the emergent themes in the synthesized knowledge, a critical analysis of the emergent themes to identify the gaps and limitations in existing research, and finally, potential research directions for future advancements in the research field. Finally, the implications, limitations, and practices are discussed.



Research design and methodology

In this paper, researchers intend to review the digital transformation knowledge produced comprehensively. The researchers used the SLR method to attain their objectives in this study. It is a secondary research method that systematically manages the diverse expertise in a specific field to generate the answers to research questions, develops insights by literature synthesis, identifies knowledge gaps, provides research directions, and provides sufficient evidences to inform policy and practices (Thorpe et al., 2005; Tranfield, Denyer, & Smart, 2003). The available literature that traditionally explains the phenomenon is too narrow in scope, subjective in nature, and field-specific to provide reliable information. The SLR differs from traditional literature review methods in that it is objective, replicable, exhaustive, and systematic. In addition, the collection and analysis of data in systematic literature reviews are reported similarly to empirical research (Weed, 2005). Therefore, the current research utilized the SLR technique, deemed the optimal method for reviewing, synthesizing, and critically evaluating the literature on digital transformation.

Data collection and search strategy

After finalizing the scope, conceptual boundaries, and research questions to be addressed in the review, it was crucial to collect data. The primary objective of data collection was to compile an exhaustive database of digital transformation and knowledge diffusion literature. This paper employs a systematic search strategy to collect data published in technology and digitalization. Through the application of inclusion-exclusion criteria to the final sample, a thorough screening was conducted in preparation for a review of the literature. Effective marketing strategies necessitated that the researchers identify the relevant literature on digital transformation, knowledge diffusion, and technological strategies for cultural organizations. Digital transformation, digitalization, digital marketing, digital technology, and knowledge diffusion are among the keywords included. These keywords were chosen based on prior research and the authors' knowledge. The researchers conducted an exploratory Google Scholar search and considered the leading journals on technology and human behavior to validate the list of keywords. According to the researchers, prior research has concentrated on various aspects of digitalization, including transformation, adoption and implementation, technological advancements, and the diffusion of technologies and knowledge. In this study, the researchers added keywords to construct the systematic literature review.

The researchers in the study selected five academic databases, including Web of Sciences, Scopus, Wiley Online Library, Science Direct, and Emerald Insight, to conduct the keyword search and retrieve digital perspective journal articles. These databases cover a variety of business management, technological adoption, and digital transformation publications. The following inclusion and exclusion criteria have been established to assure the quality and relevance of the articles to be included in this review. The keywords, databases, and inclusion/exclusion criteria are displayed in the following table.

Study selection and Sample

The systematic procedure for selecting relevant studies for the SLR analysis began with a database-specific keyword search that yielded 287 articles. The researchers discarded 191

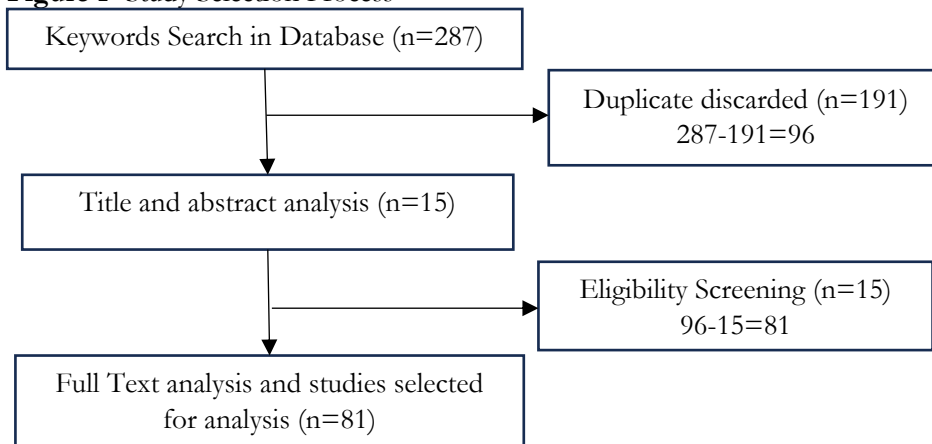
articles due to duplication across databases and irrelevance at the initial stage of their search for usable literature. After reviewing the titles and abstracts and focusing solely on English-language publications, the experienced researchers of this study eliminated 15 papers, bringing the total number of papers to 81. The research strategy, including keywords, databases, and inclusion/exclusion criteria, is displayed in Table 1.

Table 1. Search Strategy (Keywords, Databases, Inclusion-Exclusion Criteria)

A-Keywords (KW)	KW1- “digital technology.” KW2- “digitalization” KW3- “Digital Transformation” KW4- “Digital Marketing” KW5- “Information Management” KW6- “Disruptive Technology” KW7- “knowledge diffusion” KW8- “knowledge management” KW9- “social media”
B-Search Engines/Databases (DB)	DB 1- Scopus DB2- Wiley Online DB3- Science Direct DB4- Web of Science DB5- Emerald Insight
C1- Exclusion Criteria (EC)	EC1- keyword not appeared in the title, abstract or full text EC2- Books, editorials, conference proceeding, letters, essays, opinion pieces EC3- Non-English EC4- duplicate of studies EC5- beyond the scope of business management and technology
C2- Inclusion Criteria (IC)	IC1- selected keywords must appear in the title, abstract, and full text IC2- must be published in selected databases IC3- journal article- both empirical and theoretical IC4- English language

Figure 1 below demonstrates the step-by-step screening to select the final sample for analysis. A total of 81 studies were chosen in our systematic review.

Figure 1- Study Selection Process

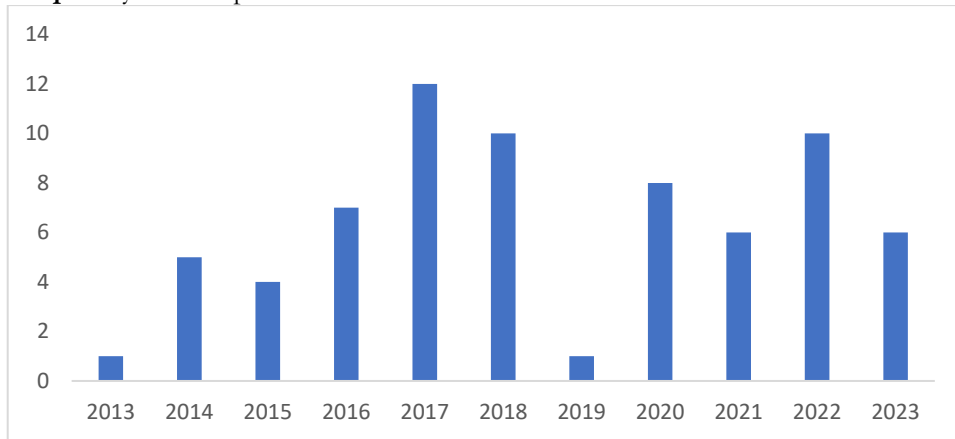


Results

Frequency and Year-wise publications

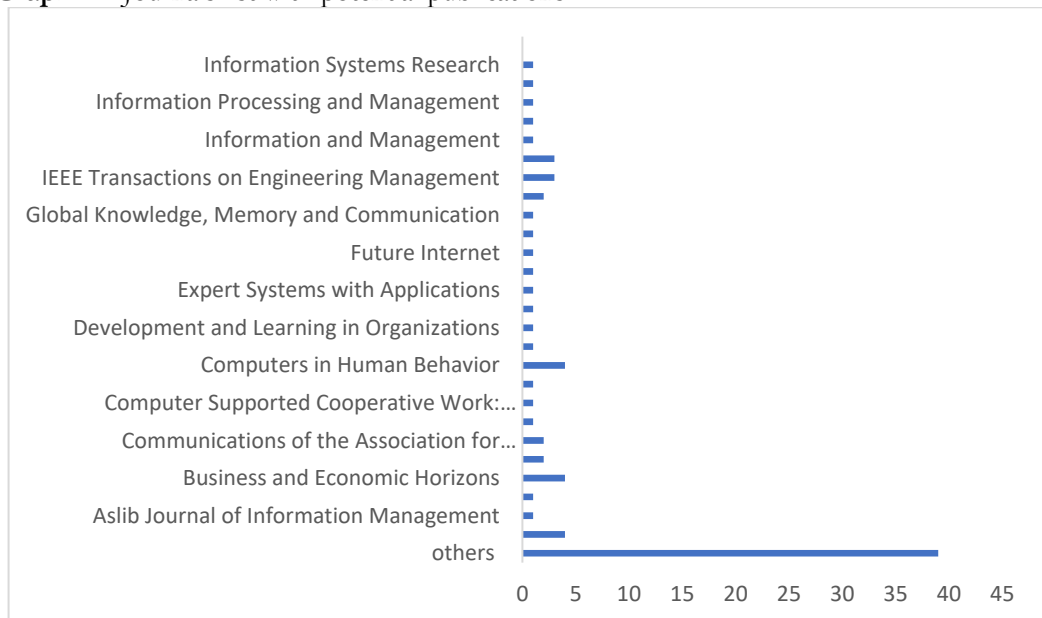
The reviewed articles in this SLR were published in 62 distinct journals over the past decade; figure 2 depicts the highest frequency of reviewed papers and journals in digitalization and IT research. Graph-1 below depicts the digitalization publication activity.

Graph 1- year-wise publications



This section of the study presents graph-2, which depicts the frequency of journals that published relevant material on digitalization and technology.

Graph 2 – Journals list with potential publications



This analysis seeks to comprehend how the diffusion of new technologies and digital marketing influences the operation of museums and cultural organizations and the effects of these changes. It examines both retrospective and prospective articles and spans an extensive period.

Even though this problem has been recognized for quite some time (Bertacchini & Morando, 2013; Hawkey, 2004), no systematic review incorporating new technologies and marketing has been conducted as of yet. This review emphasizes the most pertinent issues, describes transformational tendencies and comprehends transformational processes. In addition, according to the authors (Snyder, 2019; Xiao & Watson, 2019), conducting a literature review is similar to working on a research study, with the data represented by the material gathered by the literature reviewer. This investigation was conducted using a model based on a thematic approach. A thematic literature review is organized according to a topic or issue rather than in chronological order. Maintaining a chronological order is an essential element of a thematic review (Hart, 1998).

This was considered throughout the review, organized chronologically to include recent developments. Overall, the systematic literature review principles were applied to this study to ensure that the review is exhaustive, rigorous, and transparent and that the findings are supported by the strongest evidence available. More than fifty articles were examined, with relevance, diversity, and lucidity serving as the criteria for inclusion in this literature review. After that, 30 relevant articles that reflected contemporary thought and practice were included in this study. Through an exhaustive search of pertinent journal articles, a descriptive literature review was conducted to identify the advantages of adopting new technologies and employing digital marketing strategies in these contexts. These articles represent a variety of perspectives and approaches regarding the impact of the diffusion of digital marketing on the operation of museums and cultural organizations. Using these criteria, it is possible to guarantee that the articles included in this study are pertinent, rigorous, and exhaustive.

Themes

Contribution of new technologies

By transforming objects into digital representations, digitization plays a pivotal role in the cultural landscape (Patro, 2022). This procedure facilitates the dissemination of cultural heritage and ensures its preservation over time. By developing exhaustive databases and preserving digitally generated content, digitization ensures that future generations can access this priceless digital heritage. Using the power of smartphones and multimedia applications, museums and cultural organizations can provide enhanced, transcendental visitor experiences. These technological advancements permit the enjoyment of audio-visual enchantments on tiny handheld devices or immersive multimedia platforms. In addition, they provide a wealth of information about the exhibited artifacts, nurturing a deeper appreciation and understanding of cultural heritage. The advent of digital content has transformed the accessibility and appeal of museums, with terms such as "virtual museum," "digital museum," "electronic museum," and "cyber museum" entering common usage (Fortin, Hennessy, & Bizzocchi, 2020; Schweibenz, 2019).

Virtual reality (VR) is one of the transformative technologies that provides visitors with an interactive and immersive digital environment in which historical photographs and accrued knowledge come to life. Using digital tools, VR simulations generate three-dimensional landscapes that give the user a sense of realism. On the other hand, multimedia applications utilize multiple media formats to offer an engaging and educational voyage through cultural heritage. Museums can convey emotional depth and educational messages more quickly and



directly than traditional media, thereby enhancing the engagement of museum visitors. These multimedia tools effectively highlight and represent cultural artifacts and artistic works in a digital format (Honeysett, 2009). Taormina and Baraldi (2022) found that three-dimensional virtual excursions significantly improve usability, immediacy, and overall visitor experience. Modern museum educational programs emphasize an experiential approach incorporating the visualization of ancient scripts and archaeological artifacts unearthed during excavations (Ueda & Ban, 2018). As digital artifacts are increasingly viewed as tools for comprehending the past, museums, and cultural organizations are actively pursuing digitization initiatives to supplement their core responsibilities of collection management and extensive access to physical objects (Newell, 2012).

In the digital domain, visitors enter virtual museums, accessing virtual repositories of archaeological artifacts and cultural displays that faithfully replicate the experience of visiting traditional museums. Visitors can be guided through these digital spaces based on their interests (Mohammadi, Darzian Azizi, & Hadian, 2021). Virtual Reality Learning Environments (VRLEs) are the most prevalent type of virtual reality, providing users with immersive learning and training opportunities. VRLEs immerse users in social network-integrated virtual environments and offer specialized educational scenarios. The freedom to navigate these spaces fosters a sense of discovery and genuine interaction, which has made VRLEs extremely popular for educational purposes (Lee et al., 2020; Oyelude, 2018; Shehade & Stylianou-Lambert, 2020).

Augmented Reality (AR) is another promising technology integrating digital data with the real world. AR increases the user's perception and interaction with the real world by superimposing virtual objects. By combining virtual and actual elements in the same space, augmented reality augments rather than replaces reality. This technology enables displaying data that might not be explicitly observable (Chen & Lai, 2021; Ding, 2017; Zhou, Chen, & Wang, 2022). As augmented reality permits the exchange and integration of content within social, technological, and economic contexts (Serravalle et al., 2019), it can significantly improve the visitor experience and generate value for museums. Digitization provides numerous benefits beyond accessibility, enabling exhibits and their invaluable knowledge to be accessed without the risk of injury from handling or environmental exposure. In addition, digitization maximizes staff skills and expertise by streamlining collection administration and conservation efforts (Link Factory, 2021). In conclusion, digitization and the incorporation of innovative technologies are transforming the cultural sector, allowing museums and cultural organizations to captivate audiences with immersive digital experiences and preserve cultural heritage for future generations.

Digital marketing in museums and cultural organizations

Today, digital marketing management is increasingly important for marketers. A well-planned and organized digital marketing strategy is crucial to promote products and services successfully. Therefore, technological advancements and developing new business models with a customer-centric rather than a product-centric orientation are intrinsically linked to business capability (Gillpatrick, 2019). Moreover, all museum visitors seek benefits, value, and distinctive experiences (Kotler, Kotler, & Kotler, 2008). Competition between museums and other forms of entertainment for consumers results in increased expectations for the service functions of the museum. Meeting these expectations must be aided by marketing, which must also target the appropriate visitor categories. The importance of digital media is developing steadily.

Investigating digital marketing channels, their content, and target audiences will aid in creating a new marketing strategy (Hindersson, 2021). Digital marketing has emerged as a brand-new phenomenon that combines broad distribution and personalization to achieve marketing goals. Technology convergence and the proliferation of internet-enabled devices provided new avenues, broadened the scope of online marketing, and pushed the boundaries of a brand-new concept of digital marketing that is user-centric, more quantifiable, universal, and interactive (Obitovich, 2022).

Analyzing the nature of demand is a crucial aspect of marketing practice. Thus, understanding the nature of ever-changing consumer requirements is vital for successful innovation that leads to economic growth (Gillpatrick, 2019). These altered consumer preferences precipitated a significant decline in museum attendance, primarily because other more engaging options attract audiences. Digital practices learned from the coronavirus may be essential for initiating the reduction of this tendency. Now, museums that have implemented extensive digital changes have a competitive advantage in attracting audience attention, and this advantage is not likely to disappear anytime soon. Combining in-person interaction with a robust digital experience. By combining the two, museums and cultural organizations can offer more comprehensive attractions and entice more visitors than their competitors (Link Factory, 2021).

The notion that museums can recreate only offline exhibits online must be abandoned. Acquisition of digital skills at the executive level is necessary for a successful digital transformation, and this can be achieved by training the current leadership to equip them with digital skills. The ability of museum personnel to photograph, scan, revise, and utilize online databases and catalogs is also crucial for digitizing and creating innovative digital cultural products (Parry et al., 2018). In cultural organizations, employees who lack digital skills may limit or restrict digital activities. The epidemic has only heightened the need for digitally savvy and self-assured employees, highlighting the significance of skill development (Holcombe-James, 2022).

Social media platforms and digital marketing in museums

It has been discovered that social media platforms increase engagement, membership, and financial contributions to non-profit organizations due primarily to their interactive nature and capacity to strengthen social connections. In addition to cultural organizations and museums, social media platforms can generate multiple benefits (Appleby, 2016; Suh, 2022). According to research, despite having to close their physical locations due to the corona virus, museums demonstrated a strong desire to remain active online. During this period, museums offered alternative forms of content and hosted online events; as a result, they more than doubled their use of social media, generated significant interest, and expanded their cultural impact (Agostino, Arnaboldi, & Lampis, 2020). According to a recent study, combining social media platforms with digital marketing practices can provide three important benefits: awareness-building, community engagement, and networking (Chung, Marcketti, & Fiore, 2014).

Social media platforms are efficient for enhancing museum visitor knowledge, providing behind-the-scenes excursions, and preserving memories of past events (Coman et al., 2020). Museums use social media channels to promote and raise awareness of current events and emphasize their general presence. In addition, museums and visitors engage in interactive activities on social media platforms that are inspired and interactive. Messages used to engage the community are bidirectional, as opposed to the one-way messages used to raise awareness



from the museum to visitors. These messages encourage visitors to respond to museum staff posts and share their views with other visitors or friends. Lastly, the networking features of social media platforms enable interconnection between users. Consequently, museums interact frequently with a variety of external stakeholders in addition to visitors. By sharing and uploading content, museums can establish a two-way connection with other common interest groups, local organizations, and artist groups via social media platforms (Chung et al., 2014).

According to multiple studies, before initiating a social media campaign, a written plan with short- and long-term objectives should be developed to increase social media's effectiveness (Bandyopadhyay, 2016; Barker et al., 2012; Opresnik, 2018). Even though social media technologies are free and flexible, it requires time and resources to administer and regularly update the content. Maintaining a social media presence requires in-depth knowledge of museums and exhibits, exceptional communication skills, marketing expertise, and familiarity with social media platforms (Chung et al., 2014). This requires a complex combination of skills and experience.

According to a study, utilizing social media enabled museums to reach a larger audience effectively. If conventional marketing techniques were used, a substantial portion of their marketing budget would be consumed. In addition, social media platforms enable museums to interact with their audience in an innovative, pleasurable, and inspiring. Sharing photos of exhibits with accompanying information allows followers to gain insights about the exhibit, encourage potential visitors to attend, and re-engage those who have already visited the exhibition (Agostino et al., 2020; Chung et al., 2014). According to a separate study, museums utilize multiple social platforms for their communication channels, including Facebook and Twitter. However, Twitter is a declining medium and has not always been considered the most effective tool for reaching museum audiences and promoting events (Romolini, Fissi, & Gori, 2020) (Dang, 2022). Numerous museums interact with local communities on Facebook and have engaged younger audiences. Particularly for small museums, social media platforms such as Twitter, Instagram, and Facebook may provide low-cost solutions for overcoming resource constraints (Capriotti & Losada-Díaz, 2018). Some museums use Flickr to make their photographic collections accessible to the public and search engines (Parry et al., 2018).

Location is an additional crucial factor associated with implementing digital marketing strategies for museums. The new marketing technology through Location-Based Social Networks (LBSN) can positively affect museums and cultural organizations. Location-Based Social Networks have increased in popularity due to the rapid development of social media platforms and their integration with mobile technologies (Fellegara et al., 2016; Liu, 2017). Facebook users can search for nearby locations their friends have visited and post their location check-ins with other users. Foursquare is an additional LBSN pioneering platform. Foursquare users can receive special offers and discounts from participating businesses in exchange for a check-in. Instagram's "geo-tagging" feature is incredibly simple and useful; it aggregates content and improves brand experience. In addition, it allows users to browse for points of interest near their current location. Organizations that do not completely utilize these "check-in" services and other LBSN capabilities miss significant advantages and may fall behind direct or indirect competitors (Liu, 2017).

According to the findings of another study, Location Based Social Networks are acceptable for achieving travel and tourism objectives and have a positive and substantial impact on travelers' perceptions of a destination's brand, brand loyalty, and the spread of word-of-mouth among travelers. Individualized recommendations regarding location and points of interest can

improve service quality, strengthen customer relationships, and ultimately increase customer loyalty by creating a pleasurable and memorable experience for travelers. LBSNs positively affect consumers' brand perception (Ivanov & Velkova, 2022; Mohammadi et al., 2021; Rajaonarivo, Mine, & Arakawa, 2021).

Recent research indicates that a smartphone application may provide a service that distributes personalized content to museum visitors. The mobile application uses push notifications to deliver this content. Notifications can be sent to all visitors or a specific visitor or visitor group. The application divides museum visitors into categories based on their geographic location and their profile's dynamic evolution. This improves the museum user experience (Ivanov & Velkova, 2022).

Digital diffusion of knowledge

Knowledge diffusion refers to disseminating, accepting, or adopting new ideas and innovations (Fisher et al., 2018). Moreover, the term "viral" is commonly used to characterize the widespread online sharing of multimedia content via social media platforms, including videos, images, and artwork (Samanta & Papageorgiou, 2021). This phrase indicates that it is commonly used in online communities. In the academic community, an analogous process occurs, though it is typically called "diffusion." Studies on disseminating knowledge in the academic community are organized in numerous and diverse methods. Multiple fields of study, such as statistical physics, computer science, sociology, and management sciences, investigate the causes and effects of knowledge diffusion. This information is disseminated among individuals, groups, and organizations to disseminate research findings throughout society (Kumar, 2018). As previously stated, the digital technology creators utilize in exhibition spaces reflects interactions, potential outcomes, and visitor experience enhancement. Considering new technologies and suggested analyses, it is feasible to conclude that various design strategies aimed at visitors and encouraging new users to participate in these experiences can be implemented immediately. This allows for a broader targeting strategy for cultural organizations and novel information transmission opportunities (Ricca & Mazzilli, 2019). According to the 2020-2024 strategic plan for the Geneva Museum, exhibitions and events will be produced live and designed for digital diffusion. In addition, digital technology is presently only used for advertising and announcements. The museum intends to become a content publisher, producing original digital content and disseminating it on social media platforms. Digital content development enables the Museum to engage with online audiences who may never visit Geneva (A City of Geneva Museum, 2019).

Conclusion

As the economy and society become increasingly influenced by digital information and communications technology, museums must balance digital assets and conventional features while maximizing their resources to administer physical and digital spaces. The swiftly changing nature of technology indeed poses challenges for museums in managing digital objects and collections, developing digital skills, and establishing new workflows (Faormina & Baraldi, 2022). To preserve their cultural heritage in digital form, cultural organizations and museums should invest in new technologies such as Virtual Reality and Augmented Reality. On the other hand, they should not neglect to invest in their human capital. It is crucial to their digital marketing strategy that their employees are well-versed in technologies such as photo retouching, video processing, and social media. It is quite intriguing that no prior research appears to have examined this topic in depth. Therefore, future research in the field must also



consider the combination of new technological developments and marketing strategies (Mohammadi et al., 2021).

Table 2. Research Gaps, Limitations, and Future Research Agendas

Existing Literature	Research gaps/Limitations	Future Research Direction
Technological advances to reduce the cost and time	Implementation of data mining to facilitate knowledge transfer, and implementation of digital innovation for emerging ideas generation	Future research should focus on implementing digital creation and knowledge generation for suitable ideas harvesting.
Social links on social media linkage approach to creating the awareness	Improvements through the usage of social links	New features are required to redesign through digital transformation for improvements.
Entrepreneurs take advantage of digital innovations.	Learning of entrepreneurs through the implementation of digital innovation and transformation that enable the online communications	Improvements in online communication through digital technologies, future studies should consider the implementation of online communications through innovative digital initiatives.
The three major aspects of digital transformation are technological and industrial, organizational and managerial, and global and social. The studies have addressed the need to adopt technology, sustainability, big data, information and communication technologies, industry 4.0, social media, and digitization to enhance performance.	To enhance performance, implementing blockchain at a large scale in SMEs, machine learning, and knowledge management practices.	Future studies should incorporate blockchain, machine learning, and knowledge management practices to enhance performance through digitalization and digital transformation.
Digital marketing and knowledge management helps inspire creativity, and digital marketing automation (DMA) helps improve the online presence.	There is a research gap in adopting and implementing big data and digital transformation for effective online communication.	Future studies should incorporate the digital transformation assessment for marketing purposes on longitudinal studies for increasing effectiveness.
Electronic word of mouth (EWOm) on social media, emotional value (e-value) through social media usage.	There is a lack of investigation on electronic word of mouth, company image, and emotional attachment to digital marketing perspective.	There is a need to adopt the artificial intelligence approach for marketing activities, blockchain, and Internet of Things (IoT) adoption for effective marketing.
Digital technologies have significantly reshaped marketing and consumer behavior.	There is a lack of research on assessing the role of AI and digital transformation in enhancing consumer behavior that assists in effective knowledge management to devise marketing strategies.	Future research studies required to be conducted on data analytics and data-driven decision-making in digital transformation efforts would help optimize marketing strategies and enhance visitor experiences.
The studies have incorporated virtual communities through effective utilization of social media to establish the interaction among participants for knowledge transfer and effective exchange.	There is a lack of research on adopting the latest digital transformation and innovation equipment that ensures performance in communication and collaboration.	Future studies should consider the effective collaboration and partnerships between cultural organizations, technology companies, and academia that could be investigated to drive innovation and knowledge exchange. Moreover, research on accessibility and inclusivity in digital transformation efforts can improve the visitor experience for diverse audiences.

Recommendations for future research avenues

By digitizing their collections, museums can preserve cultural heritage for future generations, while technologies like virtual and augmented reality offer opportunities to enhance the visitor experience. In addition, using social media platforms as a marketing strategy enables museums and cultural organizations to interact and engage with current and potential visitors through digitally-created content. Several recommendations for future research in digital transformation, marketing strategies, and knowledge diffusion in cultural organizations arise from the findings of this systematic literature review. First, longitudinal studies evaluating the long-term impact of digital initiatives on cultural organizations would shed light on their viability and efficacy. Future research could also investigate the effectiveness of audience segmentation and personalized marketing strategies in cultural organizations. In addition, examining the integration of emergent technologies such as artificial intelligence, blockchain, and the Internet of Things into the systems of cultural organizations can shed light on their potential advantages and disadvantages. In addition, research on data analytics and data-driven decision-making in digital transformation initiatives would assist in optimizing marketing strategies and enhancing visitor experiences. Ethical and privacy concerns relating to the acquisition and use of visitor data should be addressed by conducting additional research into best practices. To promote innovation and knowledge transfer, collaboration and partnerships between cultural organizations, technology corporations, and academic institutions could be investigated. In addition, research on accessibility and inclusivity in digital transformation efforts can enhance the experience of diverse audiences as visitors. Lastly, comparative analysis across various cultural contexts can improve our understanding of the cultural factors that influence the efficacy and acceptability of digital initiatives in cultural organizations. The research gaps, limitations, and prospective research agendas are displayed in Table 2. Future studies can advance our knowledge and practice of leveraging digital technologies for the success of cultural organizations by addressing these research recommendations.

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