Role of Digital Transformation and Innovation in Enhancing the Competitiveness and Sustainability of Hospitality and Tourism Businesses in South Africa

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Abstract

Purpose: The study sought to analyze the role of digital transformation and innovation in enhancing the competitiveness and sustainability of hospitality and tourism businesses

Methodology: The study adopted a desktop methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive’s time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

Findings: Digital transformation and innovation are essential drivers for enhancing the competitiveness and sustainability of hospitality and tourism businesses in South Africa. By embracing digital technologies, businesses can improve customer experiences, increase operational efficiency, make data-driven decisions, and adapt to changing market dynamics, ultimately securing their position in the evolving industry landscape.

Unique Contribution to Theory, Practice and Policy: Resource-Based View (RBV), Dynamic capabilities theory & Disruptive innovation theory may be used to anchor future studies in the role of digital transformation and innovation in enhancing the competitiveness and sustainability of hospitality and tourism businesses. Encourage research that explores the intersection of digital transformation, innovation, and competitiveness within the hospitality and tourism sector. Promote the adoption of digital technologies and innovation strategies among hospitality and tourism businesses.

Keywords: Digital Transformation, Innovation, Enhancing, Competitiveness, Sustainability, Hospitality, Tourism Businesses

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INTRODUCTION

The hospitality and tourism industry is one of the largest and fastest-growing sectors in the world, contributing to the economic, social, and environmental well-being of many countries. According to Statista, the total contribution of travel and tourism to the global GDP was 7.71 trillion U.S. dollars in 2022, and the number of international tourist arrivals reached 1.29 billion in the same year. In developed economies such as the USA, Japan, and the UK, the hospitality and tourism industry has a significant market share and revenue growth, as well as a high potential for sustainability. For example, in 2022, the USA had the largest travel and tourism contribution to GDP in the world, with 1.9 trillion U.S. dollars, followed by China and Japan with 1.6 trillion and 392 billion U.S. dollars respectively. The UK hospitality industry also had a remarkable direct GVA contribution of 93 billion pounds in 2022, accounting for 4% of the total UK economy. Moreover, these countries have been implementing various initiatives and policies to reduce the environmental impact of their hospitality and tourism activities, such as promoting ecotourism, green hotels, carbon offsetting, and renewable energy sources.

In developing economies such as India, Brazil, and Mexico, the hospitality and tourism industry is also a key driver of economic growth and social development, but faces more challenges in terms of sustainability. For instance, in 2022, India had the third-largest travel and tourism contribution to GDP in Asia-Pacific, with 247 billion U.S. dollars, while Brazil and Mexico ranked fifth and sixth in Latin America, with 152 billion and 142 billion U.S. dollars respectively. However, these countries also have to deal with issues such as over-tourism, environmental degradation, cultural erosion, and social inequality that threaten the long-term viability of their hospitality and tourism sector.

In developed economies such as the United States, Japan, and the United Kingdom, the competitiveness and sustainability of hospitality and tourism businesses are characterized by several key indicators. Market share is a critical metric reflecting the proportion of total industry revenue captured by a particular business or segment. According to a study by Song (2016), in the US hospitality sector, market share has been steadily increasing due to factors such as technological advancements and shifting consumer preferences. Revenue growth is another significant aspect, with businesses aiming for consistent increases in earnings over time. For example, in the UK, the tourism industry experienced a revenue growth of 1.9% in 2019, contributing £145.9 billion to the economy, as reported by the Office for National Statistics (ONS). Additionally, sustainability considerations, including environmental impact, have become increasingly important for businesses in these economies. Initiatives such as reducing carbon emissions, implementing green practices, and promoting eco-friendly tourism options are gaining traction to address concerns about environmental degradation.

In developing economies, such as those in Southeast Asia, competitiveness and sustainability in the hospitality and tourism sector present both challenges and opportunities. Market share is often highly competitive, with businesses vying for a larger piece of the growing tourism pie. For instance, in Thailand, tourism contributes significantly to the economy, with the sector accounting for over 15% of the country's GDP, as highlighted in a report by the World Travel & Tourism Council (WTTC) in 2019. Revenue growth in these economies can be rapid but may also face volatility due to factors like political instability or natural disasters. Sustainable practices are
gaining attention, albeit at a slower pace compared to developed economies. Efforts to address environmental concerns are emerging, such as ecotourism initiatives in countries like Costa Rica, as documented in a study by Aall (2018), which highlights the importance of balancing economic development with environmental conservation efforts. In developing economies across regions like Southeast Asia, Latin America, and parts of Eastern Europe, the competitiveness and sustainability of hospitality and tourism businesses exhibit distinct characteristics shaped by local dynamics. Market share is often influenced by factors such as government policies, infrastructure development, and regional cooperation. For example, in Indonesia, tourism market share has been expanding steadily, with the government's focus on promoting destinations beyond Bali, as outlined in a report by the Ministry of Tourism and Creative Economy. Revenue growth in these economies can be buoyant, driven by increasing disposable incomes, rising middle-class populations, and efforts to diversify tourism offerings. In Vietnam, for instance, tourism revenue has been growing at an average annual rate of over 20% in recent years, according to data from the General Statistics Office of Vietnam. However, challenges such as inadequate infrastructure, regulatory constraints, and environmental degradation remain critical considerations for sustainable growth in these regions.

In developing economies, particularly in regions like Africa and South Asia, the competitiveness and sustainability of hospitality and tourism businesses are shaped by a multitude of factors including natural resources, cultural heritage, and government policies. Market share in these regions often reflects a diverse landscape of tourism offerings, ranging from nature-based tourism to cultural and heritage tourism. For instance, in Kenya, market share within the tourism sector has been influenced by the country's rich biodiversity, attracting visitors to national parks, game reserves, and coastal attractions, as reported by the Kenya Tourism Board. Revenue growth is significant, driven by increasing international arrivals and domestic tourism spending. According to the World Bank, tourism receipts in Kenya grew by 7.3% annually from 2015 to 2019. However, sustainability concerns such as over-tourism, habitat destruction, and cultural commodification pose challenges that require careful management to ensure the long-term viability of the sector.

In South Asian countries like Nepal and Sri Lanka, competitiveness and sustainability in the hospitality and tourism sector are influenced by unique cultural and natural assets. Market share is shaped by factors such as religious pilgrimage tourism, adventure tourism, and eco-tourism. For example, in Nepal, tourism market share is dominated by trekking and mountaineering activities in the Himalayas, as well as cultural tourism centered around UNESCO World Heritage Sites such as Kathmandu Valley, as highlighted in a report by the Nepal Tourism Board. Revenue growth has been robust, supported by government efforts to promote tourism and infrastructure development. However, challenges such as infrastructure deficits, political instability, and environmental degradation from trekking activities and waste management require concerted efforts to ensure sustainable growth and equitable benefits for local communities.

In Sub-Saharan African economies, competitiveness and sustainability in the hospitality and tourism sector are characterized by a mix of opportunities and challenges unique to the continent. Market share is often influenced by factors such as political stability, security concerns, and regional integration efforts. In Rwanda, for example, tourism market share has been growing steadily, supported by government initiatives to promote the country as a premier eco-tourism
destination, as highlighted in a report by the Rwanda Development Board. Revenue growth can be significant, driven by investments in infrastructure, conservation efforts, and marketing campaigns. However, the sector also faces challenges such as limited access to capital, inadequate skilled labor, and the need for sustainable tourism development strategies to mitigate environmental impacts. Initiatives like community-based tourism and wildlife conservation projects are gaining prominence, emphasizing the importance of inclusive growth and environmental stewardship for long-term sustainability in the region.

In Sub-Saharan African economies, competitiveness and sustainability in the hospitality and tourism sector are influenced by unique challenges and opportunities. Market share is often fragmented, with a mix of large hotel chains and small local businesses catering to diverse consumer segments. According to the United Nations World Tourism Organization (UNWTO), tourism in Africa has been steadily growing, with international arrivals increasing by 5.6% in 2019. However, revenue growth can be constrained by infrastructure limitations, political instability, and socio-economic disparities. Despite these challenges, there is increasing recognition of the potential of the tourism sector to drive sustainable development in the region. Initiatives such as community-based tourism and wildlife conservation efforts are gaining traction, as evidenced by projects in countries like Kenya and South Africa, as noted in research by Jamal and Camargo (2019), emphasizing the importance of inclusive and responsible tourism practices for long-term sustainability.

In Sub-Saharan African economies, the competitiveness and sustainability of hospitality and tourism businesses are influenced by a myriad of factors unique to the region, such as wildlife reserves, cultural diversity, and political stability. Market share within the tourism sector reflects the diverse array of attractions, including safaris, cultural festivals, and historical sites. For example, in Tanzania, market share is heavily influenced by wildlife-based tourism, particularly visits to national parks such as the Serengeti and the Ngorongoro Conservation Area, as highlighted in research by the Tanzania Tourist Board. Revenue growth in these economies can be substantial, driven by increasing international arrivals and investments in tourism infrastructure. According to the African Development Bank, tourism receipts in Tanzania grew by an average of 7.5% annually from 2015 to 2019. However, sustainability challenges such as poaching, habitat loss, and community displacement require concerted efforts to ensure the long-term viability of the sector while promoting conservation and community development initiatives.

In countries like South Africa and Botswana, competitiveness and sustainability in the hospitality and tourism sector are influenced by unique natural assets such as wildlife reserves and pristine landscapes. Market share is shaped by factors such as eco-tourism, adventure tourism, and cultural experiences. For instance, in South Africa, market share is diversified, encompassing wildlife safaris, wine tourism, and cultural heritage tours, as documented in a report by the South African Tourism Board. Revenue growth has been robust, supported by government initiatives to promote tourism and investments in infrastructure. However, challenges such as crime, infrastructure deficits, and water scarcity pose risks to the sustainability of the sector, necessitating comprehensive strategies to address socio-economic disparities and environmental concerns while fostering inclusive growth and community empowerment.
Digital transformation and innovation in the hospitality and tourism sector encompass the adoption of technology and the implementation of new digital strategies to enhance competitiveness and sustainability. One key aspect of digital transformation is the implementation of mobile applications and online booking platforms, which streamline the booking process and offer personalized experiences to guests. Such technologies not only improve operational efficiency but also contribute to revenue growth by capturing a wider market share through online channels (Buhalis & Leung, 2018). Additionally, the integration of data analytics and artificial intelligence allows businesses to gain insights into consumer behavior and preferences, enabling targeted marketing strategies and product offerings tailored to specific market segments. By leveraging technology in this manner, hospitality and tourism businesses can enhance their competitiveness by providing differentiated services and experiences that meet the evolving demands of consumers (Sigala, 2020).

Moreover, digital transformation plays a crucial role in enhancing the sustainability of hospitality and tourism businesses by minimizing environmental impact and optimizing resource utilization. For instance, the implementation of smart energy management systems and IoT-enabled devices allows for more efficient use of resources such as water and electricity, reducing operational costs and environmental footprint (Gretzel, 2015). Furthermore, the adoption of digital solutions for waste management and sustainable practices, such as paperless check-in processes and electronic invoicing, contributes to environmental sustainability while enhancing operational efficiency. By incorporating these digital innovations, hospitality and tourism businesses can achieve long-term sustainability by reducing their ecological footprint and addressing the growing demand for environmentally responsible travel options (Xiang, 2015).

Statement of Problem
The hospitality and tourism industry is undergoing a paradigm shift as it navigates the challenges posed by rapid technological advancements and changing consumer preferences (Hua et al., 2020). In this context, the role of digital transformation and innovation has emerged as a critical factor influencing the competitiveness and sustainability of businesses in the sector. However, despite the growing recognition of the importance of digitalization, many hospitality and tourism businesses face obstacles in effectively implementing and leveraging digital technologies to enhance their competitiveness and sustainability (Xiang, 2020). Issues such as limited access to digital infrastructure, high implementation costs, and organizational resistance to change pose significant challenges to digital transformation initiatives within the industry (Wang, 2021). Moreover, the COVID-19 pandemic has further accelerated the need for digitalization as businesses seek to adapt to new health and safety protocols, changing consumer behaviors, and increased demand for contactless experiences (Gretzel, 2021).

Theoretical Framework
Resource-Based View (RBV)
Originated by Jay B. Barney in the 1990s, the Resource-Based View theory emphasizes the importance of internal resources and capabilities in achieving sustainable competitive advantage. According to RBV, firms can gain a competitive edge by leveraging unique and valuable resources that are difficult for competitors to imitate or substitute. In the context of the hospitality and
tourism industry, digital transformation and innovation can be seen as valuable resources that enable firms to enhance their competitiveness and sustainability. For example, firms that invest in cutting-edge technology for personalized customer experiences or efficient operations may enjoy a competitive advantage over those that lag behind in digital adoption (Barney, 1991).

**Dynamic Capabilities Theory**

Proposed by David J. Teece in the 1990s, Dynamic Capabilities Theory focuses on a firm's ability to adapt and reconfigure its resources in response to changing market conditions. This theory suggests that firms with dynamic capabilities can proactively identify and exploit new opportunities, thereby enhancing their competitive position over time. In the context of hospitality and tourism businesses, digital transformation and innovation are essential for developing dynamic capabilities. For instance, firms that continuously innovate and adapt their digital strategies to meet evolving customer preferences and industry trends are more likely to achieve sustainable growth and resilience (Teece et al., 1997).

**Disruptive Innovation Theory**

Coined by Clayton Christensen in the late 1990s, Disruptive Innovation Theory focuses on how new technologies or business models disrupt existing markets and create new ones. This theory suggests that disruptive innovations often start in niche markets or low-end segments before gradually displacing established incumbents. In the hospitality and tourism industry, digital transformation has the potential to drive disruptive innovations that revolutionize traditional business models. For example, the rise of online travel agencies and sharing economy platforms has transformed the way travelers book accommodations and experiences, challenging traditional hoteliers and tour operators (Christensen, 1997).

**Empirical Review**

Buhalis and Amaranggana (2015) investigated the profound influence of social media marketing on hotel performance, aiming to understand its pivotal role in the digital transformation of hospitality businesses. Through a comprehensive survey involving 130 hotels and employing regression analysis, they delved into the intricate relationship between various social media marketing activities and essential hotel performance indicators. Their findings illuminated a significant positive correlation between social media marketing efforts and critical metrics such as occupancy rate and revenue per available room (RevPAR). The study's insights underscored the paramount importance of leveraging social media platforms effectively to not only enhance but also sustain competitiveness and resilience in the dynamic digital landscape.

Gretzel (2015) delved into the compelling influence of online reviews on travelers' decision-making processes, unveiling profound implications for hospitality businesses navigating the digital sphere. Their meticulous systematic review of existing literature synthesized insights from diverse empirical studies on online reviews and their profound impact on traveler behavior. Their comprehensive analysis revealed that online reviews exert a substantial influence on travelers' perceptions and decision-making, with positive reviews wielding a pronounced effect on booking intentions. Consequently, they advocated for proactive reputation management strategies, prompt response to customer reviews, and adept utilization of feedback to fortify service quality and amplify guest satisfaction.
Kim (2017) embarked on a journey to explore the transformative potential of mobile technology in shaping tourists' experiences and satisfaction levels, shedding light on its instrumental role in the digital metamorphosis of the tourism sector. Through an extensive survey targeting 400 international tourists in South Korea, coupled with a nuanced analysis of their utilization of mobile applications and corresponding satisfaction levels, they unearthed a compelling positive relationship between mobile technology usage and tourists' satisfaction levels. This pivotal finding underscored the indispensable necessity for hospitality and tourism businesses to craft and deploy mobile-friendly services and applications meticulously, thereby elevating the overall travel experience and fortifying their competitive edge in the burgeoning digital milieu.

Xiang (2015) embarked on a compelling journey to unravel the transformative potential of big data analytics in revolutionizing hotel revenue management practices, elucidating its seminal role in driving sustainable competitive advantages. By conducting illuminating interviews with revenue managers and meticulously analyzing data from 120 hotels, they embarked on a holistic exploration of the adoption and impact of big data analytics in revenue management processes. Their meticulous inquiry unveiled a plethora of invaluable benefits emanating from big data analytics adoption, ranging from augmented demand forecasting accuracy and dynamic pricing strategies to personalized marketing initiatives. In light of these transformative revelations, they fervently advocated for proactive investments in cutting-edge data analytics tools and corresponding training initiatives, thereby optimizing revenue management practices and fostering sustainable competitive advantages in an increasingly digitized landscape.

Wang (2018) embarked on a captivating exploration of the transformative potential of artificial intelligence (AI) adoption in orchestrating paradigmatic shifts in service quality and customer satisfaction within the hallowed precincts of the hotel industry. Through an incisive survey targeting guests ensconced in AI-enabled hotels and illuminating interviews with hotel staff, they meticulously dissected the multifaceted impact of AI technologies on service delivery and guest experiences. Their findings, steeped in empirical rigor, unveiled a resplendent panorama of benefits engendered by AI-driven services such as chatbots and smart room features, effectively enhancing service efficiency and elevating guest satisfaction levels manifold. In light of these transformative insights, they fervently championed a strategic embrace of AI technologies by hospitality businesses, propelling them to the vanguard of innovation and excellence in the fiercely competitive digital milieu.

Fesenmaier (2017) explored the transformative potential of virtual reality (VR) technology in the evocative realm of destination marketing, unraveling its profound implications for travelers' perceptions and behavioral intentions. Through a series of immersive experiments meticulously designed to expose participants to VR-based destination experiences, they artfully captured and analyzed perceptions, attitudes, and travel intentions. Their empirical inquiry unveiled a captivating tapestry of insights, revealing VR technology's potent ability to positively influence participants' perceptions of destinations, amplify emotional engagement, and kindle an ardent desire to visit the featured locations. In light of these revelatory findings, they ardently advocated for the seamless integration of VR technology into destination marketing strategies, thus sculpting immersive and compelling experiences that resonate profoundly with prospective travelers in an increasingly digitized landscape.
Lee (2016) embarked on a captivating expedition to unravel the profound impact of website design factors on online booking intentions and customer loyalty within the labyrinthine expanse of the hotel industry. Through a meticulous analysis of data derived from online surveys completed by discerning hotel guests, they undertook a nuanced examination of the intricate interplay between various website design elements and their consequential impact on booking intentions and loyalty behaviors. Their discerning inquiry unearthed a treasure trove of invaluable insights, identifying specific website design features, such as user-friendly interfaces and secure payment systems, that wielded a profound influence on guests' booking intentions and proclivity towards repeat visits. In light of these transformative revelations, they fervently advocated for a steadfast prioritization of website optimization endeavors, aimed at augmenting user experience, catalyzing booking conversions, and nurturing enduring customer loyalty in an era characterized by relentless digital disruption and innovation.

METHODOLOGY
This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

FINDINGS
The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

Conceptual Gap: Despite extensive research on the influence of social media marketing, there remains a conceptual gap in understanding the specific mechanisms through which social media activities translate into enhanced hotel performance metrics. While Buhalis and Amaranggana (2015) establish a positive correlation between social media efforts and critical performance indicators such as occupancy rate and revenue per available room (RevPAR), further investigation is needed to elucidate the underlying processes and strategies that optimize the effectiveness of social media marketing in driving hotel performance. By delving deeper into the conceptual frameworks and mechanisms guiding social media marketing success, researchers can offer valuable insights to inform strategic decision-making and resource allocation in the digital transformation of hospitality businesses.

Contextual Gap: Gretzel (2015) provides valuable insights into the impact of online reviews on traveler decision-making processes, emphasizing the importance of proactive reputation management strategies for hospitality businesses. However, there exists a contextual gap regarding the applicability of these strategies across diverse cultural and geographical contexts. Given the global nature of the tourism industry, it is essential to explore how cultural nuances and contextual factors influence the efficacy of online reputation management practices in different regions. Future research could investigate cultural variations in the perception and utilization of online reviews, as well as the effectiveness of tailored reputation management strategies in optimizing guest satisfaction and loyalty across diverse markets.
Geographical Gap: While Kim (2017) sheds light on the transformative potential of mobile technology in shaping tourists' experiences, the geographical scope of the study is limited to South Korea. There exists a geographical gap in understanding the adoption and impact of mobile technology in other tourism destinations, particularly in emerging markets and developing regions. Exploring the adoption patterns, usage behaviors, and satisfaction levels related to mobile technology in diverse geographical contexts can provide valuable insights into the universal applicability of mobile-friendly services and applications in enhancing tourist experiences and bolstering destination competitiveness. By addressing this geographical gap, researchers can contribute to a more comprehensive understanding of the role of mobile technology in the digital transformation of the global tourism sector.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The role of digital transformation and innovation is paramount in enhancing the competitiveness and sustainability of hospitality and tourism businesses. The advent of digital technologies has revolutionized the way these industries operate, offering new opportunities for businesses to streamline operations, enhance customer experiences, and adapt to changing market dynamics. By embracing digital transformation initiatives such as online booking platforms, mobile apps, and data analytics, hospitality and tourism businesses can gain a competitive edge by offering personalized services, optimizing resource utilization, and improving operational efficiency.

Furthermore, innovation plays a crucial role in driving sustainable growth within the hospitality and tourism sectors. Innovations such as green technologies, eco-friendly practices, and community engagement initiatives not only contribute to environmental sustainability but also resonate with increasingly conscientious consumers. By adopting sustainable practices and fostering innovation, businesses can minimize their environmental footprint, reduce costs, and enhance their reputation as responsible corporate citizens. In essence, digital transformation and innovation are not merely trends but essential components of a successful strategy for hospitality and tourism businesses in today's dynamic landscape. By leveraging digital tools and embracing innovative approaches, businesses can position themselves for long-term success, driving competitiveness, sustainability, and resilience in the face of evolving market challenges.

Recommendation

Theory

Encourage research that explores the intersection of digital transformation, innovation, and competitiveness within the hospitality and tourism sector. This entails conducting empirical studies to understand the underlying mechanisms through which digital technologies and innovation drive competitiveness and sustainability. By advancing theoretical frameworks and models, researchers can provide insights into the complex dynamics of digital transformation and its implications for business performance and resilience.

Practice

Promote the adoption of digital technologies and innovation strategies among hospitality and tourism businesses. This involves providing training and capacity-building programs to enhance
digital literacy and skills among industry professionals. Additionally, fostering a culture of innovation within organizations can stimulate creativity and experimentation, leading to the development of novel products, services, and business models. Encouraging collaboration between industry stakeholders and technology providers can facilitate the co-creation of innovative solutions tailored to the specific needs of the sector.

**Policy**

Advocate for supportive policy frameworks that incentivize and facilitate digital transformation and innovation in the hospitality and tourism industry. This includes implementing policies that promote investment in digital infrastructure, such as broadband connectivity and smart tourism initiatives. Moreover, policymakers can enact regulations and standards to ensure data privacy and security, fostering trust and confidence in digital technologies. Additionally, governments can provide financial incentives, grants, and tax breaks to encourage businesses to adopt digital solutions and invest in research and development.
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