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# Analysis of Digitalization Strategies for Tourism Industry in South Korea

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## Abstract

**Purpose:** This paper is designed to deliver a deeper understanding of the implications of digitalization strategies in the tourism industry, exploring the opportunities and challenges in South Korea. **Research design, data and methodology:** To identify effective strategies, an integrated approach is employed in the research that encompasses the Glocal RPM analysis and SANEL HERMES model, as well as the examination of digital tourism factors within the DIANA economy. The data used for this study were derived from multiple sources, including literature review, participation interview, tourist survey and expert questionnaire. By conducting a tourist survey using questionnaires in this research, Glocal RPM and SANEL HERMES hybrid method is used identifying and classifying influencing factors limiting digitalization in tourism. As a final step, experts use a Quantitative Strategic Planning Matrix to propose, assess, and rank a number of digitalization strategies. **Results:** According to the analysis, the study revealed that combining both tools contributes to a more holistic understanding of the environment, uncovering the positives and negatives from diverse perspectives. The average satisfaction percentage of experts was determined to be 38%, indicating anatal level of digitalization for tourism industry in South Korea. **Conclusions:** These results can serve as a valuable guide for policymakers and stakeholders in formulating targeted strategies to enhance glocalization, rationality, professionalism, and morality within the digitalization context.

**Keywords :** Digitalization, Tourism, South Korea, DIANA Economy, Glocal RPM

**JEL Classification Code:** F68, O21, O33, Z32, Z38

## 1. Introduction

Digitalization is the process of using digital technologies and data to transform business activities and create new value (Sestino et al. 2020). It has been affecting various sectors of the economy, including tourism, which is one of the largest and fastest-growing industries in the world

(Figini & Patuelli, 2022; Hadjielias et al., 2022; Kayumovich, 2020; Talwar et al., 2023). Tourism contributes to economic growth, social development, cultural diversity, and environmental sustainability (Enilov & Wang, 2022). However, tourism also faces many challenges, such as changing consumer preferences, increasing competition, environmental pressures, and

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geopolitical uncertainties (Monaco & Sacchi, 2023). Therefore, tourism industries need to adapt and innovate to survive and thrive in the digital age. Digitalization offers many opportunities for tourism industry to enhance their competitiveness and performance. For example, digitalization can help tourism industry to access new markets, develop new products and services, improve operational efficiency, reduce costs, increase customer satisfaction, and create positive social and environmental impacts (Zhao et al., 2023). However, digitalization also poses many challenges for tourism businesses, which constitute the majority of the tourism sector (Polishchuk, 2022). Some of these challenges include lack of digital skills, infrastructure, and resources, digital security and privacy risks, digital divide and exclusion, and regulatory and ethical issues.

Tourism is one of the main economic activities in many parts of the world (Butnaru & Haller, 2017; Grubor et al., 2019), with high potential of job creation (Robinson et al., 2019), attracting investments and foreign capital (Nunkoo & Seetanah, 2018). In an era dominated by rapid technological advancements, the tourism industry finds itself at a critical juncture, compelled to evolve and adapt to the transformative forces of digitalization. The digital revolution has not only altered the way individuals plan and experience their travels but has also reshaped the entire tourism ecosystem (Sestino et al., 2020). As destinations vie for the attention of an increasingly connected global audience, the integration of digital technologies has become imperative for industry stakeholders seeking sustainable growth and competitiveness. Therefore, tourism industry need to adopt effective digitalization strategies to leverage the benefits and overcome the challenges of digitalization (Polishchuk, 2022).

In the age of digitalization, tourists are increasingly relying on digital tools, platforms, and technologies to plan, book, and enhance their travel experiences (Van Nuenen & Scarles, 2021). South Korea, with its unique combination of ancient traditions and modern technology, has increasingly captivated the imaginations of travelers' worldwide (Kim et al., 2019). This research attempts to unravel the complexities of South Korea's tourism industry, examining its status, trends, and the challenges and opportunities, and examining how the industry has effectively utilized the power of digital tools and strategies to evolve in a rapidly changing landscape. As the world navigates through shifts in travel patterns and expectations, a detailed understanding of South Korea's tourism sector becomes imperative for stakeholders seeking to harness its potential and contribute to the sustainable growth of this dynamic industry (Um & Chung, 2021). The vibrant technology environment and high degree of digital penetration in South Korea make it an excellent case study for examining tourism's impact on

digitalization (Heo et al., 2020). The country has not only leveraged digitalization to promote its tourism offerings but has also embraced technology to make travelers' journeys more convenient, engaging, and memorable. The country's tourism industry has been on a trajectory of steady growth, attracting visitors from around the world. However, this growth is not just the result of South Korea's natural beauty and historical attractions but also of its successful integration of digitalization into its tourism sector (Kim & Yu, 2019).

The primary objective of this research is to introduce a strategic framework that can enhance the digital transformation of tourism in tourist destinations. The study will employ DIANA Economy, Glocal RPM Analysis, and SANEL HERMES hybrid methods to achieve this objective. It is intended that both factors of Glocal RPM affecting the South Korean tourism industry will be assessed by experts in terms of their importance in evaluating the effectiveness of digitalization strategies. Furthermore, the strategy suggestions for digital tourism in South Korea will be formulated by using the Quantitative Strategic Planning Matrix (QSPM) and factors of Glocal RPM based on the main digital tourism goals and the region-specific vision statement. This paper is designed to deliver a deeper understanding of the implications of digitalization strategies in the tourism industry, exploring the opportunities and challenges in South Korea. Moreover, the results may influence the development of future policies that will affect stakeholders in the area. In addition, other destinations can also benefit from the findings of this study in terms of developing digital tourism.

## 2. Literature Review

### 2.1. Impacts and Role of ICT in Tourism Industry

Global tourism industry is experiencing a digital revolution, where technological advancements are fundamentally transforming the landscape of travel and hospitality. Digitalization, in this context, refers to the extensive use of digital tools, platforms, and technologies to enhance and streamline the entire travel experience. From planning and booking to in-destination experiences and post-trip reviews, the impact of digitalization on tourism has been monumental. Technological innovations (Jiang et al., 2023) have a strong impact on society in this era. The industry structure is radically altered by the emergence of technologies such as artificial intelligence, big data, cloud computing, virtual reality, augmented reality and others (Maki et al., 2022). The Tourism Industry needs to integrate Information and Communication Technology (ICT) and Tourism for its development. The effects of ICT on the

Tourism sector are well-researched (Shankar, 2019). The advantages of ICT for the tourism sector are quick information dissemination, shrinking the gap between nations and enhancing transparency.

Digital technology plays a crucial role in numerous global businesses, fostering advancements in major economic sectors and markets to enhance their capabilities (Yeung and Galindo, 2019; Zheng et al., 2022). It can be argued that digitization can serve as a positive catalyst for corporate development and innovation in market performance, as evidenced by the work of Suder et al. (2022). Among these sectors, the tourism industry stands out as a significant economic activity experiencing rapid growth (Hateftabar, 2022), serving as a driving force for regional development and economic enhancement in the contemporary world (Rajamanicam et al., 2018). While the tourism industry is progressively adapting to emerging digitalization trends (Băltescu, 2021) and embracing a digital economy marked by companies' efforts to be flexible and competitive (Alford and Jones, 2020), external events such as the COVID-19 pandemic have directly impacted its potential (Lebrun et al., 2022), severely disrupting the entire global tourism value chain (Ndou et al., 2022).

## **2.2. Different Approaches to Analysis of Digitalization in Tourism Industry**

Recognizing tourism as a collaborative effort involving public agencies and a multitude of stakeholders dedicated to place development (Ruiz-Ballesteros, 2022), this scenario underscores the necessity of adapting to a newly configured reality and leveraging new technologies (Oncioiu and Priescu, 2022) to support tourism activities and enhance the overall customer experience (Ahn and Back, 2019; Ito et al., 2022). Hojehghan and Esfangareh (2011) explored the impacts of the digital economy on the tourism industry, emphasizing the acceptance of technologies in various sectors such as airlines, hotels, rental car agencies, tour operators, and travel agencies, resulting in a paradigm shift in their operations. The study recommended establishing standards for the effective implementation of digitalization in the industry. Milovic (2012) highlighted the development of electronic customer relationships due to digitalization in the hospitality sector, analyzing the influence of websites, social media, and other electronic marketing campaigns on hotel promotion and business performance.

In the realm of digital technologies shaping custom-made experiences for visitors, tourism destinations are actively seeking to digitally transform both the overall tourism experience (Băltescu, 2021) and the global offerings of tourism products. This innovative approach creates opportunities for marketing personalized digital souvenirs or gifts for each location or tourist destination (Zhao et al.,

2023), benefiting graphic designers, photographers, tourism agents, software developers, and visitors seeking memorable digital mementos from their experiences (Mantas et al., 2021). Consequently, the evolution of technology and information technology emerges as a potential solution for the sustainability of the tourism industry (Camilleri and Kozak, 2022). Even the utilization of augmented reality as a tool in virtual tourism becomes a viable option, facilitated by technological advancements aimed at simplifying and enhancing user experiences when exploring destinations (Akhtar et al., 2021).

This research study seeks to explore the intricate dynamics of South Korea's tourism industry through the lenses of Glocal RPM Analysis and DIANA Economy providing a holistic overview of digitalization strategies in the tourism industry. As we embark on this exploration, the combination of Glocal RPM and the DIANA Economy offers a comprehensive understanding of how South Korea's tourism industry navigates the delicate balance between local authenticity and global competitiveness. By unraveling these dimensions, this research aims to offer findings that not only contribute to the academic discussion but also provide practical recommendations for stakeholders, policymakers, and industry leaders invested in the sustainable growth and innovation of South Korea's tourism sector.

## **3. Methodology**

### **3.1. Data Collection and Analysis**

The main objective of this study is to perform an integrated analysis of the Glocal RPM and SANEL HERMES, and digital tourism factors of DIANA Economy in South Korea and offer development strategies in the region while being an appropriate methodology in strategic planning situations. Therefore, Glocal RPM enables policymakers to get a comprehensive assessment of glocalization, rationality, professionalism and morality of digital tourism. Since the framework analyzes the environment from different perspectives, each tool's analysis can be complemented by others, providing a comprehensive view of the environment. The tourism industry stands to gain a more comprehensive insight into the advantages and disadvantages of the environment by employing both frameworks, as each evaluates the surroundings differently. Furthermore, the methods utilized in these analyses can complement each other, leading to an enhanced comprehension of the environment in its entirety. Through the incorporation of both approaches, a more in-depth understanding can be gained regarding how the SANEL HERMES dimensions will enhance its

opportunities on a glocal, rational, professional, and moral scale.

In first stage, the research study employed a case study design and expert interview method to find the most suitable factors and strategies. This decision was based on its appropriateness for situations where research questions necessitate comprehensive, non-manipulative, and in-depth descriptions of the phenomenon, and its capacity to acknowledge the contextual relevance in issue formulation (Baxter & Jack, 2008). Furthermore, the interview method was selected as the preferred data collection technique due to its reputation as one of the most effective tools for eliciting insights from research participants (Kebete & Wondirad, 2019). In South Korea, a total of 35 in-depth interviews were conducted, involving participants from four distinct groups: policymakers (14), scientists (11), and small business owners and local investors (10).

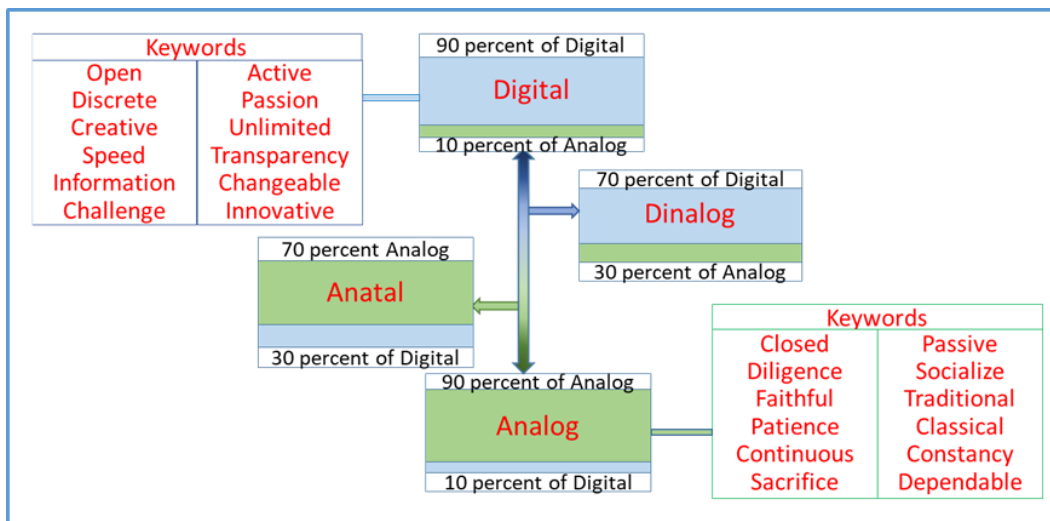
Based on participant interviews and existing research, the research identified 11 dimensions representing SANEL HERMES destination factors. In the case of Glocal RPM, each dimension comprises 4 factors, totaling 44 factors (refer to Table 1). Additionally, an overall assessment of experts' satisfaction from the interviews is conducted, calculated as the mean across all 44 factors. Using a 100-point scale, which employs a percentage-based grading system, participants in the interviews give ratings to each of the 44 factors.

Accordingly, Glocal RPM and QSPM analyses were performed to identify potential strategies. The interview protocols followed a comprehensive development process, which designed for policymakers, scientists, small business owners, and local investors primarily encompassed the following tasks: (a) Identification of the key factors

affecting digital tourism in South Korea; (b) Identification and review of suitable development strategies based on existing literature and benchmarking successful cases; (c) Evaluation of the relative attractiveness of development strategies, considering the key factors, through the application of QSPM analysis. Through the application of the DIANA Economy and Glocal RPM frameworks, the main goal of study is to enable success in the contemporary, interconnected, and technologically propelled global market for the advancement of the tourism industry in South Korea.

### 3.2. DIANA Economy

The DIANA Economy, an acronym for digital (DI) and analog (ANA), serves as a framework guiding businesses through substantial change in response to the evolving conditions of digital transformation and the 4th industrial revolution (Jeong et al., 2023b). Initially introduced by Professor JY Jeong at Jeonbuk National University in 2015, this model goes beyond the concept of digitalization, providing a comprehensive reference point adaptable to evolving business landscapes. Further, DIANA Economy assesses the impact of digital, dinalog, anatal, and analog environments on industries and companies. In the digital economy, countries demonstrate both advanced digital capabilities and a rapid pace of change. Dinalog countries exhibit a high level of digital advancement with a slow but steady improvement. Anatal countries have lower scores in digital transformation but are evolving rapidly. Analog countries, characterized as traditionalists, prefer classical solutions and values.



Source: Jeong et al. (2023b)

Figure 1: DIANA Economy

DIANA Economy model is shown in figure 1 (Jeong et al., 2023b), which comprises four key concepts: digital, dinalog, anatal, and analog. Additionally, the choice of keywords for the digital and analog economies facilitates a clear distinction between these two economic paradigms. For example, the keyword "active" characterizes the dynamic and proactive nature of the digital economy, reflecting constant innovation, adaptability, and quick responses to changing market conditions. Conversely, "passive" primarily represents the traditional and steady approach of the analog economy, emphasizing continuity and adherence to established practices with a preference for stability over rapid change. This model is flexible and applicable not only to businesses or industries but also to countries, companies, and even human capital. It provides strategic insights and recommendations based on the position within the DIANA Economy, allowing for more detailed analysis of connections to the four concepts. It is important to note that a country or company may not align completely with either the digital or analog category. For instance, Digital might be 90 percent digital and 10 percent analog, and vice versa for the analog. Dinalog represents a significant share of digital (70 percent) and a smaller share of analog (30 percent), in contrast to anatal, as per the figure (Jeong et al., 2023b).

Moreover, the percentage scores obtained by categorizing countries into the DIANA Economy's four concepts (digital, analog, anatal, and dinalog) are not static. Different research areas may use varying methodologies and weightings based on their specific goals, adjusting assessments accordingly. The appropriate percentage frameworks can be calculated and applied independently based on the study methodology. To implement and calculate the DIANA Economy framework, it is essential to identify relevant competencies in each environment and measure those using appropriate indicators. Data sources may include official statistics, surveys, reports, or other reliable sources.

### **3.3. Glocal RPM Analysis**

Glocal RPM analysis was first introduced at Jeonbuk National University in 2023 by Professor JY Jeong. Glocal RPM, standing for Glocalization, Rationality, Professionalism, and Morality, constitutes a framework applicable to various areas such as projects, businesses, product lines, divisions, or industries. This framework enables individuals or groups to organize and assess critical factors associated with success and failure in the business world. Through assessments in the dimensions of glocal, rational, professional, and moral considerations, this approach contributes to competitiveness in the current market and provides a novel perspective on global and

traditional strategies (Jeong et al., 2023a).

The Glocal RPM analysis is instrumental in assessing various dimensions critical for economic growth. It assists with exploring the path to becoming an international brand, adapting products, services, or business strategies to integrate with specific preferences, cultural nuances, and market conditions in both local and global contexts within the glocalization dimension. In the rationality dimension, it evaluates the feasibility and benefits of establishing and obtaining benefits from a business. Furthermore, it addresses the professional development of business processes in the professionalism dimension and assesses the relevance of decisions concerning society and moral concepts in the morality dimension. By comprehensively understanding every aspect of a business, not solely focusing on rational factors, the likelihood of future failures can be minimized. Through the application of the Glocal RPM analysis model, individuals and entities can enhance their comprehension of the multiple factors influencing society today. This understanding can serve as a valuable resource for decision-making, identifying potential challenges and opportunities, and fostering positive change. In the context of digitalization, which frequently involves extending a business's presence to global markets, Glocal RPM analysis proves to be a valuable tool. The significance of glocalization dimension lies in its ability to bridge the gap between global technological advancements and local contextual factors. Glocalization for digitalization is a strategic approach that connects global digital transformations with local contexts, leading to more successful and sustainable digitalization efforts, where businesses and organizations adapt their global products or services to local markets and cultures by using digital technologies. This phenomenon has significant implications for various aspects of society, such as economy, culture, politics, and environment. Therefore, it is important to examine the benefits and challenges of glocalization for digitalization, as well as the strategies and policies that can foster its positive outcomes and mitigate its negative impacts. The rationality dimension within the Glocal RPM framework evaluates the economic decision-making process, coordinating with the requirement for businesses to make strategic investments in digital technologies. Moreover, digitalization is often linked to higher levels of professionalism, particularly in technology-driven industries. Within the Glocal RPM framework, the professionalism dimension focuses on competencies, skills, adherence to standards, and distinguishing characteristics that define acceptable practices in a specific field. Ethical considerations become increasingly important, given the impact of digitalization on society and the environment. The morality dimension in Glocal RPM includes factors associated with ethics, environmental and social governance (ESG), and adherence to principles and standards (Jeong et al., 2023a).

In summary, Glocal RPM analysis provides a comprehensive and flexible framework that takes into account multiple dimensions relevant to digitalization. It not only supports evaluating digital strategies but also supports adaptability, risk assessment, benchmarking, sustainability, and coordination with stakeholders, making it a valuable tool for tourism destinations advancing their digital transformation processes.

### 3.4. SANEL HERMES of Tourism Model

SANEL HERMES of tourism model, designed to analyse the key factors impacting tourism destinations, is an acronym representing Sightseeing, Admission paying, Night touring, Experiencing, Learning, Healing, Enjoying, Rest & Relaxing, Memento shopping, Eating & Drinking, and Staying (neither commercial nor religious meanings are intended). In the year 2021, this framework was introduced by Professor JY Jeong at Jeonbuk National University (Jeong et al., 2021). This tourism model is crucial for tourism managers in destination development, ensuring that all components support visitor quality and demand. Tourists can also utilize these components as primary considerations when planning various tourism-related activities. The primary objective of the SANEL HERMES analysis is to increase the revenue of tourism destinations by identifying various factors in the tourism environment (Jeong et al. 2023a). In particular, components like Admission paying, Memento shopping, Eating & Drinking, and Staying can significantly contribute to destination revenue. It is important to note, however, that components like sightseeing places may not directly generate income. Nevertheless, they play a crucial role in attracting tourists.

The SANEL HERMES tourism model is essential as it offers a comprehensive framework for understanding key issues influencing tourism destinations. Tourism managers can leverage this model to develop strategies that enhance each component, creating a more comprehensive and appealing destination that meets the expectations of visitors. Importantly, the model supports sustainable tourism by identifying components contributing to economic, social, and environmental sustainability. By providing high-quality and relevant services for each component, destinations are more likely to foster enjoyable stays, encouraging visitors to return in the future.

### 3.5. QSPM Analysis

The Quantitative Strategic Planning Matrix (QSPM) serves as an analytical instrument employed to assess the relative desirability of different strategies, taking into account key internal and external factors (David et al., 2017). Notably, QSPM analysis, with its simplified methodological

approach, enables the objective identification and selection of strategies that are often more practical compared to alternative management techniques (Chandra & Sharma, 2018).

The QSPM analysis consists of five primary steps, as outlined by David et al. (2017):

- 1) Identification of key business factors.
- 2) Identification of potential strategies for consideration through strategic position with the factors.
- 3) Determination of attractiveness scores ranging from 1 to 10 for each prospective strategy. These scores are individually assessed for each factor, where 1-2 signifies "not attractive," 3-4 represents "less attractive," 5-6 denotes "attractive," 7-8 signifies "reasonably attractive," and 9-10 indicates "highly attractive." These scores are derived from the current assessment of South Korea's tourism environment for digitalization.
- 4) Calculation of total attractiveness scores for each Glocal RPM dimension by multiplying the weights assigned in step 2 with the attractiveness scores obtained in step 4.
- 5) Lastly, estimation of final total attractiveness scores based on the overall influence of each factor, ultimately determining the most appropriate strategy for practical consideration.

QSPM is a matrix that evaluates and ranks the attractiveness of feasible alternative strategies based on a set of criteria derived from the internal and external analysis of an organization or project. The strategies of the study are selected to increase Digital Tourism and benefits for South Korea, using the QSPM method to assess and compare their attractiveness. Moreover, the study proposes six development strategies for increasing digitalization in Tourism industry of South Korea, derived from benchmarking cases of the successful experiences of other countries and previous literature after evaluating and selecting relevant factors while considering their interrelationships. The following strategies chosen for QSPM analysis:

- Developing a Comprehensive Digital Platform and Cybersecurity - A user-friendly platform that provides comprehensive information about various tourist destinations, accommodations, restaurants, and activities. This platform could also facilitate online bookings.
- Investment and Collaboration with Tech Startups - Collaborating with tech startups for the development of new technologies or platforms that can enhance the tourist experience. The tourism industry can invest in promising tech startups. This not only provides financial support to the startups but also allows the industry to have a stake in innovative solutions.
- Digital Training and Upskilling - Develop comprehensive online training programs that cover various aspects of digital technology relevant to the tourism industry.

This could include courses on using social media for marketing, data analytics for decision-making, and the use of various digital tools and platforms.

- Sustainable and Smart Tourism - Implement sustainable practices in all aspects of tourism, including waste management, energy use, water conservation, and sourcing of food and materials by utilizing smart technologies to enhance the tourist experience while minimizing environmental impact.

- Digital Payment Solutions and Online Booking Platforms - By combining robust digital payment solutions with a user-centric online booking platform, businesses in the tourism industry can enhance customer satisfaction, streamline operations, and stay competitive in the digital landscape.

- Digital Marketing and Social Media - Utilizing social media platforms to promote tourist destinations and engage with potential tourists. This could involve sharing captivating images and videos, user-generated content, and leveraging influencers.

## 4. Results and Discussion

### 4.1. Identification of Key Influencing Digitalization Factors

Prior to exploring digital possibilities, it is crucial for leaders to first establish and agree on a digital vision for their organization, taking into account both the comprehensive digital strategy and the value proposition for their businesses. The initial steps should involve evaluating their abilities, determining the necessary resources, and considering potential collaborations that could assist in achieving their objectives. Other practical considerations include the viability of the suggested initiatives and their potential worth. In the process of creating the roadmap, industrial firms need to think about the strategic consequences for the existing business, including potential disruptions to offline distribution channels as digital sales increase. For successful digitization, industrial companies must modify processes, which should also tackle the unavoidable channel conflicts in the strategic roadmap by recognizing the risks, assessing the potential effects, and devising a strategy to alleviate any problems.

**Table 1:** Influencing Digitalization Factors of DIANA Economy, Glocal RPM and SANEL HERMES Dimensions

	<b>G</b> lobalization	<b>R</b> ationality	<b>P</b> rofessionalism	<b>M</b> orality
<b>Sightseeing</b>	Online environment and virtual reality of natural beauty and cultural atmosphere	Digital infrastructure	Digital public services and technologies	Conservation of natural ecosystem and cultural heritages
<b>Admission paying</b>	Computerized ticketing systems	Chatbots and instant advise	Online booking systems and technologies	Reasonable price
<b>Night touring</b>	Digital technologies for safety and security	IoT applications for nightscape beauty and attractions	Urban night amenities	Prevention of cyber crime
<b>Experiencing</b>	Research and development in ICT	Integration of digital technology	Staffs' knowledge of foreign languages and electronic information	Digital culture of residents
<b>Learning</b>	Information and communication resources	Investment in 4IR	Training and education of digital talents	Adaptive attitudes of personnel for ICT technologies
<b>Healing</b>	Sustainability and favorable climate	Virtual tours for fauna and forest areas	Online opportunity of spiritual development	Environmental safeguarding and green practices of the government
<b>Enjoying</b>	Using of social media and internet for festivals and events	Innovation and creativity of digital entertainment activities	Professionalism on organizing sustainable enjoyment activities and services	Anti-corruption policy

<b>Rest&amp; Relaxing</b>	Digital environment of relaxation amenities	Effectiveness and accessibility of relaxation activities	Online accessibility of leisure services	Political stability
<b>Memento&amp; Shopping</b>	Easy Navigation of a memento and hassle-free checkout	E-commerce	Good product quality and easy online return policy	Online fraud safety
<b>Eating&amp; Drinking</b>	Availability of information on online food experience	Touchscreen POS terminals and self-order kiosks	Integrated online ordering and contactless payments	Preventing food waste
<b>Staying</b>	Smart technologies and energy applications	Online customer reservation systems and wireless internet	Communication culture and digital service of staffs	Environmentally friendly accommodation

Source: Constructed by the research participants

Detailed information can be found in table 1 regarding the influencing digitalization factors of DIANA Economy, Glocal RPM, and SANEL HERMES dimensions across various aspects of the tourism industry, which the factors can contribute to the development and improvement of the tourism industry across various dimensions, including globalization, rationality, professionalism, and morality.

#### 4.2. Results of Expert Interviews Using Glocal RPM and SANEL HERMES model

In the context of the digitalization of the tourism sector in South Korea, the elements of Glocal RPM have been pinpointed. Furthermore, the performance of Glocal RPM is evaluated by four elements from each dimension of SANEL HERMES. An overview of the digital influencing factors utilized in the research is presented in Table 2. The data analysis was conducted using an inductive method due to the exploratory nature of the study. During the analysis, 11 elements of SANEL HERMES were related to each Glocal RPM dimension (globalization, rationality, professionalism, and morality), with expert satisfaction being measured by percentage scores ranging from a minimum of 1 percent

(very unsatisfied) to a maximum of 100 percent (very satisfied). Finally, the total average percentage of expert satisfaction stands 38 out of 100 for all factors for results of Glocal RPM and SANEL HERMES dimensions for general current digitalization situation of tourism industry in South Korea. The results presented here do not represent general tourism conditions, but simply the level of digitalization currently occurring in the South Korean tourism industry. In terms of factors affecting dimensions of Glocal RPM, morality scored the highest with 52 while globalization scored the lowest with 25. Digital tools are used to effectively manage visitors, book reservations, and market destinations, reflecting the professionalism of the industry. Moreover, the industry places a strong emphasis on ethical considerations, prioritizing the security and privacy of visitor data in the digital landscape. The morality of digitalization in South Korea's tourism industry is evident in its efforts to balance technological advancements with cultural sensitivity, ensuring that the adoption of digital tools respects local customs and values. It is evident from the results that tourism activities still face a number of obstacles in order to achieve high level of digitalization, and there is a need for a better governance system based on professionalism and morality.

**Table 2:** Descriptive Results for General Current Digitalization Situation of Tourism Industry in South Korea

	Globalization	Rationality	Professionalism	Morality	Mean:
<b>S</b> ightseeing	14%	35%	46%	52%	37%
<b>A</b> dmission paying	36%	15%	39%	44%	34%
<b>N</b> ight touring	30%	19%	36%	72%	39%
<b>E</b> xperiencing	39%	25%	18%	65%	37%
<b>L</b> earning	34%	51%	59%	71%	54%
<b>H</b> ealing	40%	31%	21%	48%	35%
<b>E</b> njoying	12%	21%	39%	46%	30%
<b>R</b> est & Relaxing	16%	41%	26%	62%	36%
<b>M</b> emento shopping	11%	65%	52%	48%	44%
<b>E</b> ating & Drinking	19%	42%	61%	35%	39%
<b>S</b> taying	24%	51%	32%	29%	34%



Mean:	25%	36%	39%	52%	38%
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### 4.3. DIANA Economy and Glocal RPM Analysis for Major Cities of Travel and Tourism in South Korea

As shown in table 3, the Tourism Industry of South Korea has been analyzed using both DIANA Economy and Global RPM data. Additionally, the table shows results for major South Korean cities of tourism and travel. The analysis shows that South Korea has an average score of 38%, indicating an anatal level of DIANA Economy in terms of glocalization, rationality, professionalism, and morality in the tourism industry.

Among the major cities, Seoul has the highest score with 61%, followed by Busan with 57% and Jeju with 43%. In contrast, Incheon has the lowest score with 28%, followed by Gwangju with 19% and Daegu with 18%. In terms of glocalization, Jeju has the highest score with 59%,

indicating that the city has a high level of openness to international tourists. In contrast, Gwangju has the lowest score with 12%. Regarding rationality, Seoul has the highest score with 63%, indicating a high level of efficiency in the tourism industry. On the other hand, Jeonju has the lowest score with 12%. Among the cities based on professionalism, Jeonju has the highest score with 15%, indicating that the city has a high level of expertise in the tourism industry. A score of 49% is the lowest for Busan. Regarding morality, Yeosu has the highest score with 45%, indicating high moral standards within the tourism industry. In contrast, Incheon has the lowest score with 17%. Overall, the analysis suggests that the tourism industry in South Korea and its major cities have varying levels of performance in terms of glocalization, rationality, professionalism, and morality. The results can serve as a basis for identifying areas of improvement for the industry in the country.

**Table 3:** DIANA Economy and Glocal RPM Analysis for Major Cities in South Korea

Destination	Glocalization	Rationality	Professionalism	Morality	Average	Result
South Korea	25%	36%	39%	52%	38%	Anatal
Major Cities of Travel and Tourism in South Korea						
Jeonju	14%	12%	15%	37%	19%	Analog
Seoul	75%	63%	58%	47%	71%	Dinalog
Busan	62%	65%	49%	52%	57%	Anatal
Incheon	41%	15%	39%	17%	28%	Analog
Daegu	13%	18%	16%	26%	18%	Analog
Jeju	59%	69%	15%	23%	43%	Anatal
Daejeon	26%	36%	27%	19%	27%	Analog
Gwangju	12%	25%	21%	18%	19%	Analog
Sejong	18%	26%	27%	16%	22%	Analog
Yeosu	26%	39%	41%	45%	38%	Anatal

### 4.4. Final Rankings of Strategies Using QSPM

In the dynamic landscape of the modern tourism industry, digitalization has emerged as a pivotal force, reshaping the way destinations engage with travelers and optimize their offerings. For South Korea, a nation rich in cultural heritage and technological prowess, the integration of digital strategies into the tourism sector is both an opportunity and a necessity. The Quantitative Strategic Planning Matrix (QSPM) is a strategic tool that can be effectively utilized for formulating digitalization strategies in the tourism sector of South Korea. This method involves the identification of key factors, assigning weights and scores to these factors, and evaluating various strategic alternatives. By using QSPM, we can compare and prioritize strategies that can leverage

digital technologies to enhance the tourism experience, improve operational efficiency, and create new value propositions in South Korea's tourism industry. This approach ensures a systematic and objective analysis, leading to the selection of the most promising digitalization strategies.

**Table 4:** Final Rankings of Strategies Using QSPM

	G	R	P	M	Mean	Rank
Digital Payment Solutions and Online Booking Platforms	1.89	1.46	2.77	1.96	2.02	6
Digital Training and Upskilling	2.62	2.42	3.16	1.94	2.54	4

Sustainable and Smart Tourism	2.74	2.71	2.73	3.36	2.89	3
Investment and Collaboration with Tech Start-ups	3.63	3.29	3.98	2.88	3.45	1
Developing a Comprehensive Digital Platform and Cybersecurity	3.25	3.24	2.97	3.93	3.35	2
Digital Marketing and Social Media	2.63	1.8	3.57	1.95	2.49	5

Note: The range of attractive scores 1 = not attractive, 2 = less attractive, 3 = attractive, 4 = reasonably attractive, 5 = highly attractive.

In Table 4, presenting the final rankings of strategies for the tourism industry in South Korea using the Quantitative Strategic Planning Matrix (QSPM) method, the strategy of "Investment and Collaboration with Tech Startups" emerges as the top-ranking choice with a mean score of 3.45. This strategy is perceived as highly attractive, considering its weighted scores across various factors (1.0 = not attractive to 5.0 = highly attractive). Following closely is the strategy of "Developing a Comprehensive Digital Platform and Cybersecurity" with a mean score of 3.35, securing the second position. "Sustainable and Smart Tourism" captures the third spot with a mean score of 2.89, emphasizing the importance of eco-friendly and intelligent tourism practices. The strategy of "Digital Training and Upskilling" is ranked fourth with a mean score of 2.54, highlighting the significance of workforce development in digital skills. "Digital Payment Solutions and Online Booking Platforms" and "Digital Marketing and Social Media" secure the fifth and sixth positions, respectively. These rankings provide valuable insights into the prioritization of strategies for the tourism industry in South Korea based on their overall attractiveness scores.

Based on the research findings, a set of targeted recommendations and strategies emerge for practical application in policy formulation within the tourism sector. Firstly, there is a need to encourage the widespread adoption of secure digital payment solutions and online booking platforms. This involves advocating for seamless integration and collaboration with financial institutions. Secondly, the emphasis should be placed on digital training and upskilling programs for industry professionals, with partnerships formed with educational institutions and incentives provided to motivate individuals and businesses to participate in digital upskilling initiatives. Thirdly, a focus on sustainable and smart tourism practices is crucial, requiring the formulation of policies that incentivize eco-friendly solutions with environmental agencies and tech innovators and investment in smart tourism infrastructure such as internet of things devices and data analytics, to optimize resource utilization. Additionally, fostering innovation through investment and collaboration with tech

start-ups can drive technological advancements in the sector. The development of a comprehensive digital platform should be prioritized, complemented by robust cybersecurity measures to protect tourist data. Finally, investing in digital marketing campaigns and social media presence can significantly enhance destination visibility. Integrating these recommendations into a holistic digital tourism strategy, while maintaining adaptability to technological shifts, is essential for the continued growth and resilience of the tourism industry in South Korea. Additionally, policymakers should engage stakeholders, conduct regular assessments, and remain adaptable to evolving technological trends to ensure the sustained success of these strategies in the dynamic tourism industry.

## 5. Conclusions

In conclusion, this research aimed to provide a comprehensive analysis of digitalization strategies for the tourism industry in South Korea, utilizing a hybrid approach incorporating the Glocal RPM and SANEL HERMES frameworks, along with insights from the DIANA Economy. The dual framework analysis offered a nuanced perspective, allowing policymakers and stakeholders to evaluate glocalization, rationality, professionalism, and morality in the context of digital tourism. The study revealed that combining both tools contributes to a more holistic understanding of the environment, uncovering the positives and negatives from diverse perspectives. The average satisfaction percentage of experts was determined to be 38%, indicating a moderate level of digitalization in the South Korean tourism industry. Furthermore, the QSPM method was employed to rank development strategies for the South Korean tourism industry. "Investment and Collaboration with Tech Start-ups" was identified as the top strategy, reflecting its perceived high attractiveness and potential impact. "Developing a Comprehensive Digital Platform and Cybersecurity" and "Sustainable and Smart Tourism" secured the second and third positions, emphasizing the importance of technological infrastructure and eco-friendly practices.

The research makes several significant contributions to the understanding and development of digitalization strategies in the tourism industry of South Korea. Firstly, the study introduces a hybrid analysis approach, combining the Glocal RPM and SANEL HERMES frameworks with insights from the DIANA Economy. This hybrid approach offers policymakers a comprehensive view of the digital tourism landscape, encompassing glocalization, rationality, professionalism, and morality. Secondly, the research utilizes the Glocal RPM and QSPM analyses to identify potential strategies for the development of digital tourism in

South Korea. By involving key stakeholders and experts in the development process, the study ensures the relevance and applicability of the identified strategies. Moreover, these contributions collectively provide a comprehensive toolkit for policymakers and stakeholders in shaping efficient digitalization strategies for the development of the tourism industry in South Korea, fostering informed decision-making in today's interconnected and technologically driven global market.

This study has some limitations that should be acknowledged and addressed in future research. First, the study relies on the subjective opinions of the interview participants, who may have different perspectives and biases on the digital tourism factors and strategies. Therefore, the results may not be generalizable to other contexts or stakeholders. Second, the study uses a qualitative approach, which may limit the depth and breadth of the analysis. A quantitative approach, such as a survey or an experiment, could provide more empirical evidence and statistical validity for the findings. Third, the study applies the Glocal RPM and SANEL HERMES frameworks, which are relatively new and have not been widely tested or validated in the literature. Therefore, the applicability and reliability of these frameworks may be questionable or limited. Future research could compare and contrast these frameworks with other existing models or theories in the field of digital tourism. Fourth, the study focuses on the South Korean context, which has its own unique characteristics and challenges in terms of digital tourism development. Therefore, the results may not be transferable or relevant to other countries or regions that have different cultural, political, economic, or environmental factors. Future research could explore the digital tourism strategies in other contexts or conduct cross-cultural comparisons to identify the similarities and differences.

In essence, this research not only provides a snapshot of the current digitalization landscape in the South Korean tourism industry but also offers actionable strategies for further development. These results can serve as a valuable guide for policymakers and stakeholders in formulating targeted strategies to enhance glocalization, rationality, professionalism, and morality within the digitalization context. The findings can guide policymakers, businesses, and other stakeholders in formulating targeted interventions to enhance the industry's digital maturity, ensuring sustained growth and competitiveness in the global tourism market.

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