
Opportunities and Challenges of Digital Transformation in Vietnam's Tourism Industry

Ngo Mai Phuong
Thai Nguyen University
University of Information and Communication Technology, Vietnam

doi: 10.51505/IJEBMR.2022.61202

URL: <https://doi.org/10.51505/IJEBMR.2022.61202>

Abstract

Digital transformation is an opportunity and a challenge across all industries in the world as well as in Vietnam. Digital transformation in tourism is focusing on platforms and solutions for smart management of tourism activities. Smart products and services associated with digital transformation of augmented reality, virtual reality, 3D mapping. Tourism businesses in Vietnam are strongly implementing digital transformation to overcome the consequences after the Covid-19 pandemic. In Vietnam, the tourism industry's opportunities in digital transformation include the implications of digital transformation strategy; effectively promote the integrated development of the industry; strongly promote the transformation and upgrading of the tourism industry. In addition, there are challenges such as the limitation of the digital transformation limit of the tourism industry; digital workforce shortage; The problem of digital infrastructure is still very difficult.

Keywords: Digital transformation, Tourism, Opportunities, Challenges, Vietnam.

1. Introduction

In recent years, especially during the Covid-19 pandemic, the term Digital Transformation has been mentioned frequently. According to Gartner, the world's leading information technology research and consulting company, college is the use of digital technologies to change business models, creating new opportunities, revenue, and value. According to Microsoft, CSR is about rethinking how organizations bring together people, data, and processes to create new value. In businesses, where most of the digital transformation work takes place directly, digital transformation is often understood as the integration of digital technologies into all areas of the business, taking advantage of technologies to change fundamentally change the way businesses operate, business models and deliver new values to their customers, helping to accelerate and increase the efficiency of business activities. Thus, college is not just a technology issue, but requires fundamental changes in thinking, perception, habits, changes in operating methods, business models, etc. to provide values. new for customers, for humanity, making life better. College is also a change in corporate culture, requiring businesses to continuously innovate and accept change to survive and develop.

Around the world, Digital Transformation (DT) started to be mentioned a lot around 2015, popularized in 2017. In Vietnam, DT started to be mentioned a lot around 2018. The Prime Minister approved the Chapter. Submitting the Country Argument on June 3, 2020. College is the next development of computerization, made possible by the remarkable progress of

breakthrough new technologies, especially digital technology. Community college is the process of total and comprehensive change of individuals and organizations in the way of living, working and production methods based on digital technologies [1].

On November 19, 1997, the Internet began to develop in Vietnam. Not long before that, several businesses and individuals were equipped with computers, opening the stage of digitization for businesses. According to Cisco (2019), Vietnam's readiness for digitization only ranks 70/141 countries with a score of 12.06/25 points; At that time, Cisco assessed that the level of readiness for the digital economy in Vietnam was lower than most countries in the region, just above Cambodia; The Digital Adoption Index reached 4.6/10/. In this context, at the end of 2019 - the beginning of 2020 Covid -19 appeared, social distancing, broken supply chains, to survive, only had to switch to working in a digital environment, while doing both learning, the digital is gradually perfecting.

In the Industrial Revolution 4.0, digital transformation plays an important role in the digital economy. Digital Transformation is a concept appearing in the booming Internet era, describing the application of digital technology, or called "Digitalize" to all aspects of an organization or business. The concept of digital assets is easily confused with the concept of "Digitalization". Digitization is the process of modernizing and converting conventional systems to digital systems (such as converting from paper documents to soft files on computers, digitizing television from analog broadcasting to digital broadcasting). digital...). Digitization is a revolution in information processing. Digital is understood as information and communication technology (ICT) including the component industries such as software programs, electronic computers, internet, broadband, mobile phones.... Meanwhile, Digital Transformation is about exploiting the data obtained from the digitization process, and then applying technologies to analyze, transform that data and create new values. Digital transformation means building a dynamic and innovative development model through the evolution of digital technology and its supporting capabilities. College is a journey not a destination and is an urgent issue today of most organizations and businesses. So, Digitize as part of Digital Transformation. The concept of community is often understood as the process of changing from a traditional business model to a digital one by applying new technologies such as big data (Big Data), cloud computing (Cloud), the Internet for things (IoT)... to change operating methods, leadership, work processes, and company culture. Not only does digital transformation play an important role in businesses, but digital transformation also plays an important role in other areas of society such as government, mass media, medicine, science, art. [2] .

According to Pham Huy Giao, the essence of college is the convergence of four breakthrough technologies: cloud computing technology (cloud computing), big data (big data), internet of things (IoT) and artificial intelligence (AI). In terms of practical implementation, college is a means/tool to support changing an industry or business to survive and develop in the digital age [3].

Director of the Department of Informatization - Ministry of Information and Communications Nguyen Thanh Phuc commented in the seminar Digital Transformation - Opportunities and Challenges held in November 2018 in Hanoi as follows: "CDA is when data is available. fully digitized, we must use technologies such as AI, Big Data... to analyze data, transform and create

another value. The fourth industrial revolution, especially digital technology, has developed strongly, creating breakthroughs in many fields, creating both opportunities and challenges for all countries and peoples [4] . At the same time, on continuing to build and perfect the institution of a socialist-oriented market economy, the Political Report requires that it is necessary to pay attention to the institutions for digital transformation and development of the digital economy, such as: "Building a legal framework, a favorable environment to promote development, start-up, operation of new fields, new business models." [5] . Therefore, in the process of building, integrating, and developing the country, the development of Digital Transformation is extremely important and urgent, colleges help economic growth; increase competitiveness for businesses; increase labor productivity and social development.

2. The purpose of digital transformation with Vietnam's tourism industry

The Ministry of Culture, Communication and Tourism has directed the Vietnam National Administration of Tourism to implement five digital transformation contents: Promoting the application of digital technology in tourism marketing; Smart tourism destination management and development; Developing tourism digital information system and applications; Support businesses and start-up communities to create and apply information technology in the field of tourism; Propaganda, training and awareness raising about the application of information technology in the tourism industry.

The application of advanced digital technology applications will help businesses better understand customers, personalize service packages and incentives based on customer preferences; while reducing costs, maximizing profits, helping to interact, take care of customers directly and remotely, scientific, fast, and high-performance workflow. Thereby, improving the competitiveness of domestic tourism businesses, creating more positive changes for both customers and tourism businesses. Instead of having to go to a travel agency to choose from hundreds of tour packages and travel services, with just a smart mobile phone using digital applications, they can perform a variety of activities. From planning a trip, choosing a means of transportation, a travel agency to booking a hotel room and receiving incentives after the trip.

Digital transformation in the tourism industry will focus on platforms and solutions for smart management in the context of the Fourth Industrial Revolution; information sharing, building utilities for searching, ordering services and making cashless payments... Smart products and services associated with digital transformation such as augmented reality (AR), virtual reality (VR), 3D mapping, etc. are also strongly developed to help visitors have new and unique experiences when visiting tourist destinations. The application of digital technology will make a positive contribution to ensuring the safety of tourists. customers, create new and unique products and effectively support businesses in e-commerce activities; online marketing and promotion, but it is also a limitation, difficulties of the tourism industry in terms of resources, products are still independent and scattered, and the scale is not large enough leading to the influence of digital transformation in the tourism industry. not high.

Colleges in tourism are often focused on providing experiences for visitors. Therefore, digital transformation in the tourism industry can be understood as a shift from the traditional travel business model to a modern customer-focused tourism business model following a digital value

chain model based on data. has been digitized. Different from the traditional tourism model, modern tourism business focuses more on customers, remembers data, and applies digital technologies, which is divided into 3 stages: (1) Collect data about products, customers, locations. (2) Digitizing data, using digital technologies for analysis, helping to gain insights into customers and business operations. (3) Turn those insights into concrete actions.

3. Situation of Digital Transformation in Vietnam's tourism industry

Due to the impact of the Industrial Revolution 4.0, the change in consumer habits, and especially the Covid-19 pandemic, digital transformation has become an inevitable trend of the global tourism industry. According to Mr. Nguyen Asia, CEO of Oxalis Adventure Tours: In the world, digital transformation in the tourism industry has been around since the 90s and started strongly about more than 10 years ago. In the next 10 - 20 years, most of the tourism businesses in the world will either have completed their digital transformation or have been digital companies themselves since their inception.

In early 2020, the Covid-19 pandemic hit, turning the whole world upside down. Tourism is one of the industries hardest hit by this pandemic. According to the Du Foundation world calendar (UNWTO), in 2020, the number of international arrivals decreased by about 1 billion arrivals, equivalent to 74% compared to 2019, leading to a decrease in total tourism revenue of nearly 1 billion people. 1 trillion USD. In Vietnam, according to Minister of Culture, Sports and Tourism Nguyen Van Hung, international visitors only reached 3.7 million arrivals, down 79.5%; domestic tourists were estimated at 56 million arrivals, down 34.1%; damage was estimated at 530,000 billion VND (equivalent to 23 billion USD). About 40 - 60% of workers lost their jobs or cut their working days; about 95% of international tour operators have stopped operating; Many hotels have to close, room occupancy is sometimes only 10-15%. Not only causing damage, the Covid-19 pandemic also changed consumer habits, according to a survey by the Vietnam Tourism Advisory Board (TAB) on the needs and trends of tourists during the period. Covid-19, 40% of the respondents said that they want to book tours online, only 12-15% still book tours through travel agencies. These figures show that consumers have turned to digital platforms to save time, limit exposure, and make transactions more convenient. The reality requires Vietnam's tourism industry to consider digital transformation as a vital priority, to change its operating methods, and to approach new technologies to adapt and develop sustainably in the context of climate change. new.

On June 3, 2020, the Prime Minister issued Decision No. 749/QĐ-TTg approving the National Digital Transformation Program to 2025 and orientation to 2030. is one of the 8 important industries that prioritize digital transformation first according to the provisions of Decision 749, but because of its development, the tourism industry is very active in participating in the Digital Transformation Program. To realize the goal of national digital transformation, develop the digital economy, improve productivity, quality, efficiency and economic competitiveness set out in the Resolution of the 13th Party Congress, the Ministry of Culture, Sports and Tourism has directed the Vietnam National Administration of Tourism to deploy 5 contents on digital transformation: Promoting public application digital technology in tourism marketing; Smart tourism destination management and development; Developing tourism digital information system and applications; Support businesses and start-up communities to create information

technology applications in the field of tourism; Propaganda, training and awareness raising on the application of information technology in the tourism industry, in order to increase resilience and create a breakthrough in the coming time. next.

Clearly defining the importance of digital transformation, considering digital transformation as a fundamental factor to promote Vietnam's tourism to thrive again in the upcoming period, the Organizing Committee of the Hanoi International Tourism Fair 2020 has decided to choose the theme of the year as Digital transformation to develop Vietnam's tourism. Application This is aimed at an audience of more than 43 million smartphone users. This is a useful tool for visitors to explore the the point arrive a full and advertising ba the point arrives give guest du calendar, copper time effectively serve the second domestic tourism stimulus program.

However, the digital transformation of Vietnam's tourism industry is still heavily formal, has not yet entered reality, still lacks a clear strategic direction for the whole industry, still allows localities, departments, sectors, Businesses race to develop in their own ways, leading to inefficient digital transformation. A tour around some localities, businesses will clearly see the picture this.

Digital transformation in tourism businesses in Vietnam

Whether digital transformation is successful or not, largely depends on the businesses, where the digital transformation process takes place directly. According to a recent Mckinsey report, 70% of businesses' digital transformation efforts fail to achieve their initial goals. This number makes many tourism businesses hesitate, especially small businesses, of which 97% of Vietnamese tourism businesses are businesses. small.

In the not so bright general picture of digital transformation of Vietnamese businesses, there are still some bright spots, successful digital transformation enterprises, would like to introduce some points to create trust and help businesses. Other businesses withdraw experience.

When it comes to tourism in Vietnam, people will immediately think of Vinpearl, this is also one of them companies that have successfully applied digital transformation. According to Mr. Le Khac Hiep, Vice Chairman of Vingroup , the business will create many new values by applying technology. digital technology to change the entire management and operation model as a way of doing business. With the results of digital transformation at Vinpearl system from August 2018 to now, Mr. Hiep said that the initial data analysis results show very positive signals. The benefits of digital transformation come not only from saving on transportation costs onion or make more accurate and faster decisions based on the report system that is automatically aggregated in real time, but also helps businesses increase their competitiveness in the market strongly, Mr. Hiep acknowledged. However, it is not only large enterprises that successfully convert digitally, but small businesses also convert very well like Travelogy Vietnam. Travelogy Vietnam has applied digital transformation since the beginning of 2020, after 2 weeks of the outbreak, because Covid-19 requires social distancing, working from home, connecting with customers via the Internet... digital transformation and clear planning from a year in advance, so Travelogy did not face too many difficulties in digital transformation. Thanks to digital transformation, Travelogy has reached more customers, better customer care, reduced costs and increased business efficiency. Understanding all the

operations of the tourism industry, the *Travel Master Software development team* being used by Travelogy has included in the Sale module all the necessary information fields about customers so that the data entry is not missing or missing, confused. The detailing of service information makes the tour calculation simpler, and customers also understand the cost of each of the smallest elements that make up a product tour. When a customer has a request to book a tour, the Sales department only needs to rely on the data entered the system to create a complete tour with full services and detailed price list sent to customers. In case the customer wants to change any service, we can easily create a new tour according to the customer's requirements. The systematic arrangement of the Sale module makes us work with customers more efficiently. When storing a large enough set of customers, tourism businesses can provide analysis and assessment of their habits and needs. Businesses will form a list of potential customers, a list of loyal customers, etc. to have appropriate customer care strategies to create the highest business results. It can be said that thanks to digital transformation, Travelogy can survive and develop, when Covid-19 overthrew 95% of international travel businesses. Also, a small business like Travelogy, HG Holding has shared experiences very nice about transfer change number. Mr. Ngo Bright Virtue, Owner president HG Holding, divide shall: In the context of international travel and aviation almost crippled with the pandemic, switching Numbers for Vietnam 's tourism industry are very important. We converted numbers five years ago, at that time it was extremely difficult difficult, in Vietnam few people, few businesses dare to convert digitally. In In 2020, with the Covid -19 epidemic spreading and complicated developments, we have highly focused on technology. In addition, we have also built a Vietnamese platform, put on the amazon site. According to Mr. Ngo Minh Duc, there are four important points, that 's is to build a real, good product that will be the foundation product. In addition, it is necessary to build a community with a network ecosystem in which Vietnamese people will use each other's products. Third, there is policy protection from the authorities. And fourth, there should be a good PR and communication campaign so that all Vietnamese people give priority to using Vietnamese products Male.

Besides several successful digital transformation businesses mentioned above, most of Vietnam's tourism businesses either have not yet implemented digital transformation or have not yet been successful. With 97% being small businesses, most Vietnamese tourism businesses are not interested in digital transformation or still do not understand or are afraid of costs, or because they are afraid to change the familiar way of doing things. Interviews with 50 leaders, officers in charge of strategy, planning, business in charge of travel companies, tourist farms, accommodation establishments... show that. And when being convinced that digital transformation is a prerequisite for business survival, small businesses want to rely on the support of the State, superiors, and large enterprises to carry out the transformation. change number. From the current situation of digital transformation of Vietnam's tourism, it is necessary to have a consistent digital transformation strategy orientation for the whole industry, in addition to encouraging businesses, especially businesses, to succeed in digital transformation. Small businesses confidently participate in digital transformation, and digital transformation succeeds only when there is a close connection between large and small businesses, in which large enterprises are the mainstay, entice, guide, spread Spread digital transformation for small businesses. However, those links do not come naturally, they need to be created in the form of a

supply chain of tourism services, good tourist products, attractive enough to attract domestic and foreign tourists, bring profits to the parties involved and could survive and develop sustainably. In the current context, when selecting tourism products/types to build a supply chain, three additional criteria need to be met: Firstly, each selected tourism product supply chain must be an association. To carry out digital transformation, in many large enterprises as the headquarter, they have successfully converted or are capable of successful digital transformation, enough to entice small businesses to do digital transformation. And it is the successful digital transformation that will make the selected product more perfect, more attractive, and more competitive. Second, the tourism product selected for link building must ensure the safety of attendees (tourists and business members) in living conditions with Covid - 19. It is not known until the Covid pandemic. - 19 has just ended, so it is not possible to wait until Covid disappears before restarting tourism but must actively choose a type of tourism product that can operate safely while the Covid epidemic is still raging. Third, the tourism product selected to build the link chain must be sustainable, the jobs done in the current period will create conditions for tourism to develop in the next period.

4. Conclusion

Opportunities of the tourism industry in digital transformation

First, the strategic implications of digital transformation of the tourism industry.

Breaking information asymmetry and realizing digital transformation—global sharing is a model of comprehensive upgrading of traditional industries with the support of information technology. Its biggest feature is that the traditional tourism industry relies on Internet technology, cloud computing and big data platform to achieve. Data is shared between different businesses and organizations. In the past, information asymmetry in the tourism industry has caused great obstacles to the development of the whole industry. The unclear supply-demand relationship has affected the production structure and production efficiency of the tourism industry. Digital transformation can rely on emerging technologies such as cloud computing, big data and 5G to improve the information congestion in the travel industry in the past. At the same time, tourists can also master relevant travel information and choose the travel services they need in less time.

Second, effectively promote the integrated development of the tourism industry.

Internet technology has led to the integration trend of many different industries, blurring the boundaries between different traditional industries. The tourism industry involves many industries, many of which have a close relationship between food, accommodation, transportation, travel, shopping, and entertainment. Cloud computing and big data technology rely on powerful integration to promote deep integration between tourism management, tourism marketing and tourism product design. Digital transformation can effectively break the boundaries between traditional tourism industries, relying on Internet technology to take full control of tourists' behaviour, habits, and preferences. There is a landing between upstream and downstream businesses in the tourism industry. Does this landing create conditions for development? stoppage of industries in the integration process.

Third, strongly promote the transformation and upgrading of the tourism industry.

Digital transformation can optimize the structure of the traditional tourism industry. At the same time, the tourism industry will also form a product-based, market-demand-oriented business model, providing visitors with accurate and convenient services. After digital transformation, the tourism industry has significantly improved its resource matching, information integration, and consumer guidance capabilities. Digital transformation measures play an important role in the process of industrial transformation industry in the Internet age and influence the overall strategic situation of economic development. After the traditional tourism industry relates to the emerging technologies such as big data, cloud computing and the Internet of Things, changed industry models and industry structures industry is optimized and upgraded. This makes the tourism industry a new growth point thanks to the fortunes of digitization under the backdrop of a normal economy.

Fourth, accelerate the construction of an innovative tourism industry management system.

Digital transformation has provided more possibilities for innovation in the management model and organizational form of the tourism industry. In the traditional tourism industry, due to limited information circulation channels, the staff is inefficient. At the same time, those who do government work also face many difficulties and obstacles in service supervision. These problems have caused important influence on the healthy development of the tourism industry. For businesses, managers can use data processing technology to improve work efficiency, use data analysis technology to make strategic goals more in line with market needs. Staff in the tourism industry can more conveniently receive feedback from travelers about products and services, thereby correcting deficiencies in a timely manner. Therefore, digital transformation measures have effectively innovated traditional tourism management.

Fifth, improve the core competitiveness of tourism products.

Digital transformation can enable practitioners in the tourism industry accurately captures the needs of tourists. This is an important way to improve the cost-effectiveness of the product. Students in tourism industry for public use processing technology evil Whether great to feces type and feces volume pine believe and to hit price du calendar, copper time are not stop pursuing tourism demand hotspots, to design products that can improve traveler satisfaction and provide services that meet travelers' desires. Digital applications will guide managers in formulating appropriate marketing themes, optimizing marketing methods, improving cost-effectiveness of products and services, and enhancing competitiveness. overall competition in upgrading their own business methods and improving their management methods physical.

Sixth, data has become a new factor and engine for the development of Vietnam's tourism industry.

Travel businesses in Vietnam are quite proactive in approaching the industrial revolution 4.0, seeing this as an opportunity to improve their competitiveness. For example, Vietravel, Five Stars Travel, Vietrantour... starting from basic - digitizing data, including updating tour information, incentive programs, business activities on the website; apply new technology to increase customer experience; upgrade tour operating software; establish direct interaction channels with guests; deploying an electronic payment gateway... Through the analysis,

integration, and transparency of information, closely following customer feedback, businesses will identify new tourism products and travel fares keep up with the general trend. These are Vietnamese travel businesses trying to create smart tourism products. Smart tourism is one of the results of applying the internet of things of Vietnamese travel businesses to their business activities.

Currently, Vietnamese travel businesses apply the Internet of Things to many activities: the Internet of Things in relation to partners, suppliers, and tourism management agencies; the internet of things in its activities with customers. For customers, travel agencies apply information displayed on attractive websites with many attractive promotions, personalized display information, selected from thousands of hotels and tour programs. to pay by credit card or directly, encourage customers to share their experiences on Facebook, Instagram, YouTube...; Maintain customer experience by electronic interaction (email, sms). The application This can be divided into 2 main activities: communication and online tour sales. In creating smart travel products via the internet for customers, Vietnamese travel businesses create websites, fanpages and apps as the company's communication channels. Through these means and through the internet of things, businesses actively promote information about company events and online tours, promotions to tourists. At the same time, many websites sell online tours. The route in the field of travel has become a familiar address for many tourists when they need to look up information and book sightseeing services at home and abroad. In addition, Vietnamese travel businesses are also gradually completing the online tour selling App for tourists to add a means of understanding information and booking tours.

Challenges of the tourism industry in the process of digital transformation

The dilemma of tourism's digital transformation. Currently, in most areas of our country, due to the quality tourism practitioners are uneven, management level is relatively low, public Due to the inadequate supply of digital technology and relatively lagging tourism services, the tourism industry faces many difficulties in the development of digital transformation. The digital transformation of the tourism industry faces many constraints, including funding, talent, policies, information platforms, concepts, organization and management, and cooperation mechanisms in the tourism industry.

First, the conceptual limitation of the digital transformation limit of the tourism industry.

Traditional and conservative concepts of development have played a significant role in limiting the digital transformation of the tourism industry, and this restriction is often ingrained and difficult to change. It has two meanings: First, most people understand and accept the digital transformation of the tourism industry but lack further understanding. The promotion and practice of digital development of the tourism industry has not been long, so although most tourist destinations and people working in tourism industry has heard about digital transformation and vaguely realize its value and meaning, but they still do not understand deeply about digital transformation. number conversion. In the current situation, throughout the tourism industry, the use of informatization as a behavior to develop tourism business and improve marketing effectiveness is basically limited to large enterprises. and a few within the professional elite. In addition, most managers and personnel in the tourism industry lack understanding of the

content, expansion, and development value of digital transformation of the tourism industry. Although many places promote the development of the digital tourism industry, it is not true, the sense of digital transformation, digitization is not the same. As simple digitization. Second, because the relevant personnel and managers do not understand the digital transformation of the tourism industry well, most of them tend to maintain the status quo rather than progress. Status this one face influenced by the conservative ideology of the people, on the other hand, the situation This is also influenced by the interests of tourist interest groups. The digital transformation of the tourism industry means a large financial investment is required.

Second, the shortage of digital talent limits the digital transformation of the tourism industry. The digital transformation and development of the tourism industry requires many well-rounded tourism professionals and industry elite talents. information technology. Many competitions at provincial, even national level, have only a small amount of knowledge about digital and information tourism, in examining and selecting candidates for digital practice. In addition, colleges and universities are also quite inadequate in nurturing digital tourism talent, offering very few relevant courses and practical applications. Therefore, the digital transformation of the tourism industry is facing the embarrassing problem of lack of successors. The shortage of digital talent directly affects the leap of the tourism industry to a level higher. Currently, most of the scenic spots, hotels, travel agents, travel shops... are not yet equipped with public talents. Professional tourism digital technology, not even a public position yet digital technology. The problem caused by talent shortage is that even if you have the means and equipment to do digital transformation, set up travel websites and set up marketing frameworks like accounts Officially on tourism, the result is that due to a shortage of digital talent, facilities and equipment are almost crippled. Moreover, with the advancement of public science technology, the progress of the times and the change of visitor needs, digital tourism facilities and equipment originally built are not maintained and updated by professional staff, leading to information and data. lag in applying new technology and innovation.

Third, limitations on the inadequate provision of core digital technology and third-party services. Limitations and influence of the public Core digital technology for the digital transformation of the tourism industry mainly includes the following three aspects.

One is the weak digitization platform, low level of digitization, lack of personalized online travel services. Digital tourism is an advanced stage of the tourism industry. The digital transformation of the tourism industry requires application a lot of work current information technology such as cloud computing, technology smart terminal technology, Internet of Things, geographic information systems, technology IPv6 technology, Technology VR technology, global positioning system, technology 5G technology, etc., public innovations This technology has very high requirements for network infrastructure. However, at present, in the digital development of Vietnam's tourism industry, there is still a fundamental problem of lagging in building facilities, and at the same time lacking service providers. The agency can take on key tasks such as strategic consulting, organizational design, tourism marketing and data operations.

Second, there are regional differences in the level of public digital art in Tourism. The digital transformation of the tourism industry is largely limited by the level of economic development of the region or city. travel. In terms of the overall situation of tourism digital network coverage, mobile information penetration rate, regional development factors, etc., areas that have well developed the digital transformation of our country's tourism industry and have the potential for future development is mostly concentrated in big cities with economic development.

Three is the ratio public application digital technology in tourism is lacking. Is a combination the middle of the public new technologies and traditional forms, digital tourism is a profound interaction and integration between past and present, conservative, and innovative, old and new. From a technical perspective, although it exists during the digital transformation of the tourism industry. Due to the different regional development, there are basically no technical difficulties limiting the development of digital tourism. How to Effective and comprehensive application Digital technology into tourist attractions, hotels, travel agencies and other units is a current problem that needs to be urgently solved. No merit technology, innovate, learn, and introduce technology technology inside Tourism.

Fourth, the fragmentation of digital resources in Tourism.

The digital transformation of the tourism industry is facing a huge digital divide, and the degree of coordination and sharing between different industries is relatively low. The imbalance and inadequacy in digital development of the tourism industry are quite prominent, in most areas, the quality of digitalization is low, the intellectual and information base is weak, and the human resources are limited. and which has created a digitalization gap in the digital development of the tourism industry in different regions of our country. The digital evolution of the tourism industry is a complex and profound one. This complex involves many aspects such as tourism, accommodation, food, shopping, and entertainment. However, in practice, public development business, business synergy between public chains Different businesses is not ideal, and a large number of digital resources lack interoperability and sharing. Hotels, travel agencies, scenic spots, etc. The lack of interconnected digital information databases has made each service point a digital island, efficient in use. Very low data resource usage. And for most individual practitioners and small travel agencies, even when they engage in digital collaboration, they still have many concerns about data security, which in a to some extent limit the efficiency and quality of data sharing and business cooperation.

Sixth, Vietnamese tourism businesses are still weak in technology, which makes it difficult for businesses to compete with foreign travel companies. Currently, the number of enterprises in the tourism industry accounting for more than 80% are small and medium enterprises. Therefore, they are not enough conditions for implementing digital transformation. Besides, the National Administration of Tourism said that Vietnam Currently, it is still mainly applying digital transformation technologies already developed on the Internet the world, at the same time, domestic tourism e-transactions can only meet about 20% of demand.

Seventh, in recent years, some localities and tourism businesses in Vietnam have begun to approach digital transformation. However, the implementation is still scattered, lack of concentration and not implemented thoroughly. On the other hand, the level of understanding of each business about digital transformation is not high and not really uniform. Digitalization will come with the restructuring of businesses and business processes, which is a change not all businesses are ready to make.

Eighth, the system of legal documents as well as programs to support domestic enterprises for market and product development is still quite limited while they have to compete with foreign travel companies with great potential. strong force. Therefore, the Government also has policies to support domestic tourism businesses, and at the same time has effective communication and advertising campaigns so that Vietnamese people give priority to using domestic tourism services.

Acknowledgments

The article is the product of the grassroots scientific research No. T202 2 -07-20, sponsored by the University of Information and Communication Technology, Thai Nguyen University.

References

- Ministry of Information and Communication, Handbook of Digital Transformation-2021.pdf . 2021
- E. T. Tran, TT Pham, and TT Nguyen, "Digitalization and Digital Transformation in Library Operations," in Developing a Digital Knowledge Center Model for Vietnamese Libraries , 2020, pp. 763–772.
- PH Giao, "CDS. Nature, Practice, Application.pdf," Petroleum Journal , vol. 12, no. December 19, 2020, pp. 12–16, 2020.
- "Valley of Dai Hoi XIII tap 1," 2021.
- "Valid of Dai Hoi XIII tap 2." 2021
- Shawar, BA, & Atwell, E. (2007, January). Chatbots: are they useful? Print Ldv forum (Vol. 22, No. 1, pp. 29-49).
- Stalidis, G., Karapistolis, D., & Vafeiadis, A. (2015). Marketing decision support using Artificial Intelligence and Knowledge Modeling: application to tourist destination management. *Procedia-Social and Behavioral Sciences*, 175, 106-113.
- Huang, MH, & Rust, RT (2018). Artificial intelligence in service. *Journal of Service Research*, 21 (2), 155-172.
- Boyd, R., & Holton, RJ (2018). Technology, innovation, employment, and power: Does robotics and artificial intelligence really mean social transformation? *Journal of Sociology*, 54 (3), 331-345.
- Argyriou, L., Economou, D. and Bouki, V. (2020). Design methodology for 360° immersive video applications: the case study of a cultural heritage virtual tour. *Personal and Ubiquitous Computing*. 24, p. 843–859.

- Farah, MF; Ramadan, ZB; Harb, DH (2019). The examination of virtual reality at the intersection of consumer experience, shopping journey and physical retailing. *J. Retail. Consum. Serv.*, 48, 136–143.
- Kim, MJ, Lee, CK, & Jung, T. (2020). Exploring consumer behavior in virtual reality tourism using an extended stimulus-organism-response model. *Journal of Travel Research*, 59 (1), 69–89.
- Lee, J.; Kim, J.; Choi, JY (2019). The adoption of virtual reality devices: The technology accepting model integrating enjoyment, social interaction, and strength of the social ties. *Telemat. Inform.* 39, 37–48.
- Lee, WJ & Yong, KH (2021). Does VR Tourism Enhance Users' Experience? *Sustainability*, MDPI, Open Access Journal , vol. 13(2), pages 1-15 .
- Yung, R., & Khoo-Lattimore, C. (2019). New realities: A systematic literature review on virtual reality and augmented reality in tourism research. *Current Issues in Tourism*, 22 (17), 2056–2081