

## Barriers to Digital Transformation among MSME in Tourism Industry: Cases Studies from Bali

Jingjun Lei, Logaiswari Indiran, Umar Haiyat Abdul Kohar

Universiti Teknologi Malaysia, Malaysia

Email: leijingjun@graduate.utm.my

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### Abstract

Bali is an internationally well-known tourism destination. The performance of Bali's micro, small, and medium-sized enterprises (MSMEs) in the tourism industry serves as a benchmark for the Indonesian tourism industry. Digital transformation can assist firms in adapting to new business models and recovering swiftly from epidemics. The reality, however, reveals that the digital transformation process of MSMEs in Bali is slow, particularly in the tourism sector, and must catch up. This study intends to analyze the barriers MSMEs experience during digital transformation and identify the specific digital technologies employed by MSMEs. Six Bali-based MSMEs are interviewed through the qualitative methodology. According to the findings, the key impediments are (1) an individual's lack of digital skills, (2) organizational and cultural barriers, such as a traditional mindset missing digital awareness, and (3) environmental barriers, such as a lack of resources and digital infrastructures. Furthermore, the survey reveals that social networking is the most widely utilized digital technology by MSMEs in Bali. The internet portal offers SMEs supplementary marketing and advertising options. This research improves our understanding of the current situation of Indonesian tourism-related MSMEs and enriches the academic study of MSMEs. In addition, it provides a reference to entrepreneurs undergoing digital transformation.

**Keywords:** Digital Transformation, Bali, MSMEs, Barriers, Digital Technology, Tourism Industry

### Introduction

The term "digital transformation" (DT) refers to the restructuring of technology, business models, and business processes intending to provide new value to customers and employees in conjunction with the development and adaptive change of the digital economy. DT aims to provide unique value to customers and employees (Ulas, 2019). Concurrently, DT in micro, small, and medium-sized businesses (MSMEs) is gaining popularity and becoming a reality among academics and practitioners (Cha et al., 2015). Despite this, the DT process of MSMEs is still slow and needs to improve, especially in the tourism industry. This occurs due to the features of MSMEs, which include a lack of resources and the creation of a mismatch

between knowledge and an organizational asset (Li et al., 2018). In addition, the black swan occurrence, such as the Covid-19 outbreaks that have occurred worldwide since 2019, provided a massive shock to the economy of the entire world, including Indonesia (Bahtiar & Saragih, 2020).

The island of Bali is renowned as a popular tourist destination all over the world. Because the tourism sector is the most critical contributor to the Gross Regional Domestic Revenue in Bali, the performance of Bali's MSMEs in the tourism industry serves as a benchmark for the performance of Indonesia's MSMEs in the tourism industry (Jauhari & Periansya, 2021). The agricultural and industrial sectors come second and third, respectively, after the tourism sector (Soritua, 2015). According to the findings of the survey, the micro, small, and medium-sized enterprises (MSMEs) in Bali are under severe pressure as a result of a 68% drop in sales as well as other issues in terms of financing, marketing, distribution, and production as a direct result of Covid-19 (Yuliantari & Pramuki, 2022). Since the black swan incident altered the pattern of consumer behaviour, the majority of tourism MSMEs cannot survive and some must seek out additional business alternatives (Persada Indonesia).

Speed-up DT conducting is a successful method for ensuring that companies continue to operate regularly amid the Covid-19 outbreak (Kudyba, 2020). During this transformation, digital technology is crucial to the future success and administration of MSMEs through DT (Rupeika-Apoga et al., 2022). Tourism enterprises, products, services, experiences, and destinations have all been significantly altered by the advent of digital technology. In addition, it alters the conventional relationship between producers and customers. With the rise of digital platforms, tourism SMBs are finding more opportunities to offer new products and experiences to clients. This transformation has presented MSMEs with new obstacles (Dredge et al., 2019).

The study aims to determine the barriers when MSMSs conduct the DT in the post-pandemic period. We want to clarify why the DT process is so lagged in Bali. What are the barriers to the digital transformation of tourism-related MSMEs in Bali? And the same time, what digital technology do MSMEs employ to identify more business opportunities? The author drew from a qualitative interview and found six small businesses as a case study sample to research. The current analysis comes from the primary data under the interview and scholarly research. After introducing the related literature research in the following sections, the methodology will continue to state. And then, the result and the final part are about the discussion and limitation, study contribution and future research directions.

## **Theoretical Background**

### **Digital Transformation in Tourism**

Data and digital technology have altered the company and business ecosystem throughout the entire industry. Digital transformation can increase the opportunity to raise the market's size, accelerate growth, enhance operations, and develop competitive advantages (Dredge et al., 2019). The digital tourist digital revolution offers more opportunities for innovative solutions. For instance, clients can use the digital tourism platform to make online reservations, communicate feedback, and exchange experiences. In addition, with the rise of smartphones, people may prepare their travel plans without interacting with others; they can do anything by phone, including check-in and ordering additional services (Imtiaz & Kim, 2019). The demand and supply chain has been profoundly altered by information and communication technologies (ICTs). Since 1990, the

technologies have drastically transformed the information dissemination and communication channels in tourism (Pesonen, 2020).

There are three phases under technology promotion that pertain to tourism development. (1) Sales and marketing from 1990 to 2000, the Internet became widely used as a market communication tool; individuals may now use tourism websites for research, communication, and reservations, and this mode of communication is becoming the most important source of customers (Zach et al., 2010). (2) Digital business ecosystems from 2000 to 2010, the chief executive of the industry leader in tourism understood they may package and sell their IT products and services. The airlines, hotels, and internet tourism companies may provide tailored service, and Google can play a crucial role in pushing, indexing, and advertising focused content. The tourism organization's business model should be modified to accommodate the "new consumer." (3) Integration of systems since 2010, search engines, social media, mobile technology, big data, and the internet of things (LOT) have fundamentally altered the tourism business. The combination of digital infrastructure can collect, integrate, and analyze data, leading to decision-making that is optimized (Xiang & Fesenmaier, 2017). The Table 1 shows the examples of digital technologies transforming tourism.

Table 1  
*Examples of digital technologies transforming tourism*

Phase 1. 1990-2000	Phase 2. 2000-2010	Phase 3. 2010 onwards
Electronic cash registers	Smart phones	Augmented reality
Financial software	Computer graphics software	Virtual reality
Mobile phones	Property management systems	Mobile Apps
Email	Computerized ticketing systems	Cloud computing and online data storage
Intranet	Computerized stock control systems	Wearable technologies
Internet banking	Online booking systems	Social media
Office software	Customer reservation systems	Google analytics
Video conferencing	Email marketing	Review websites
Websites	Customer relationship systems	Collaborative online environments
Destination (city) cards		Web 2.0
		Chat-bots and instant advice
		Peer production, e.g. platform
		collaborative economy; commons
		collaborative economy

Sources: Xiang & Fesenmaier (2017)

**The Barriers of Business in Digital Transformation**

It is vital to acquire digital skills in order to grow the digital transformation (Marx et al., 2021); nevertheless, according to the report, the primary characteristics of tourist MSMEs are at a low level, and the majority of technologies are geared toward enhancing internal e-business activities (Dredge et al., 2019). Research suggests that the absence of skills among the employees of MSMEs is a significant impediment that would hamper digital

operations in enterprises (Zimmermann, 2021). Then, some researchers said that the constraints that prevent small enterprises from utilizing digital technology include not only a lack of digital skills but also a lack of training, financial resources, digital infrastructure, and political backing (Dredge et al., 2019).

According to a number of academics, the digital transformation of a company faces five significant obstacles. (a) lacks capabilities, such as IT knowledge, information and decision-making on technologies, or process knowledge. (b) technical obstacles, including infrastructure and security. (c) Individual obstacles, such as fear of job loss and acceptance anxiety (d) organizational and cultural obstacles, such as maintaining conventional roles, lacking a clear vision, resisting cultural change, a lack of financial resources, and reluctance to risk. (e) environmental obstacles, such as a lack of regulations or laws (Vogelsang et al., 2019). Other academics have also investigated the obstacles to smart service; they have classified these obstacles into three categories: internal barriers, resources and capacity gaps, and external barriers. Internal obstacles consist of managerial culture, identity, and legitimacy. The resources and competence gap include the inability to provide intelligent service, lack of resources, access to influence, etc. External impediments include industrial buying culture and relationships, unwillingness to outsource, etc.(Töytäri et al., 2017). Details can be found in Table 2: Digital transformation Barriers.

Table 2

*Digital transformation barriers*

Authors	Research method	Objective of the study	Barriers/Challenges
Toytari et al (2017)	Qualitative	To explore barriers in adopting smart services	(a) Internal barriers and management practices (culture, change of mindset, beliefs, identity) (b) Lack of resources and capability gaps to provide smart services (c) External barriers (industrial buying culture and relationships, reputation and brand image, unwillingness to outsource, nonmatching solution visions)
Vogelsang et al (2019)	Qualitative	To identify and describe key barriers to DT in manufacturing	(a) Missing skills (IT and process knowledge) (b) Technical barriers (c) Individual barriers (fear of job loss, transparency, loss of control) (d) Organizational and cultural barriers (keeping traditional roles, no clear vision, resistance to change, risk aversion, lack of financial resources, lack of time) (e) Environmental barriers (no standards and no laws)
Dredge et al(2019)	Qualitative	The objective of this report is to analyze the specific challenges and opportunities of digitalization in tourism	(a) Lack of finance (b)Current technology is sufficient (c)High training costs (d)Rapid pace of technological change

Sources: Cichosz et al (2020)

### Methodology

The qualitative case study method is employed to examine the digital transformation of Bali's tourism MSMEs. According to Baxter, this is a practical approach for determining the outcome of multiple cases within their complex context. If this method were utilized appropriately, it would constitute the theory (Baxter & Jack, 2008). The case study method primarily addresses "how" and "why" issues, and the researcher cannot influence participant behavior (Yin, 2003). In this study, we collect data via semi-structured interviews. The researchers concur that a stringent data collection procedure is essential in determining the data's quality and credibility, influencing the research outcome. Interviews are the most common and effective strategy for collecting data in qualitative research (Kallio et al., 2016).

### Study Information

The location of the data collection is Bali, Indonesia. The choice of Bali is based on the fact that the province of Bali is the tourism hub of Indonesia. The number of tourism-related MSMEs is approximately 326,000 across all regions, with 80 percent of MSMEs specialising in tourist accommodations, 9 percent in tourism transportation and activities, 8 percent in travel agencies, and 3 percent in tourism villages. Given the quantity of MSMEs, it is a representative sample of Indonesian tourism (Bhaskara & Filimonau, 2021). Covid-19 has caused a significant disruption in the tourism industry. How they use digital technology to recover their business in the post-epidemic period is a crucial subject to investigate because it may help researchers understand the current state of DT in Bali and also aid the local government in formulating a strategy to support and develop it. This study's subjects were chosen randomly, observed prior to selection, and then interviewed after their suitability for the study was determined and the store owner or staff's permission was gained. Each participant was questioned for 30 to 60 minutes, and the interviews were recorded and conducted in English.

### Interview Administration

The interview process was completed in December 2022. We use the semi-structured interview method because the interviewees are tourist practitioners with differences in education, career, and background. Thus, it can't use the usual interview list. In addition, the semi-structured interviewer has a clear vision of research questions based on the research topic and allows the interviewee to open their brains in the nature atmosphere (Heigham & Croker, 2009). Heigham & Croker (2009). The participants of the interview are the owner or staff in the tourism MSMEs, which comprises transportation organizations, rafting trip agency, retail and rental store, a scenic place, restaurant, and homestay. They are all familiar with business conducting and can supply true information and statistics from distinct perspectives. In order to better understand the current state of the digital transformation of MSMEs in Bali tourism, we asked them various questions, including but not limited to these concerns: (1) Do you utilize any digital technology in your business? Rate yourself:(1,3,5,7); (2) Does the new technology affect your business? If yes or no, how does it affect it? Please offer an example; (3) Do you think covid-19 is the main reason for this change? (4) What are the key barriers when you employ these technologies? (5) What support are you looking for

about digital transformation? And from whom? Government, supplier, partner, customers, angel investor, mentor or others? The interview participants' profiles are in Table 1.

Table 3

*The profile of the interview participant*

Participant	Sector	Position	Gender	Interview Length
1	Transport(A)	owner	male	60minutes
2	Transport(A)	owner	male	45minutes
3	Retail, rental store(B)	owner	male	35minutes
4	Rafting trip agency(C)	staff	male	60minutes
5	Rafting trip agency(C)	staff	female	30minutes
6	Scenic spot(D)	staff	female	60minutes
7	Scenic spot(D)	staff	female	30minutes
8	Restaurant(E)	staff	female	35minutes
9	Restaurant(E)	owner	male	30minutes
10	Homestay(F)	staff	male	45minutes

### Finding

The business ecosystem in Bali, Indonesia is significantly distinct from that of a developed nation; over 99 percent of Indonesia's economy relies on MSMEs, whereas developed nations rely on major enterprises. (Saputra & Herlina, 2021). As a result, the introduction of Covid-19 has posed a significant obstacle for the tourism MSMEs of Bali to expand their businesses as before. Therefore, digital transformation is an efficient means of survival for them. Based on the examination of interview data, we uncover a distinct difference between the various organizations' digitalization efforts. Nonetheless, several obstacles when MSMEs desire to embrace digital technology or attempt to transition to digitalization share similar characteristics. (1) individual barriers, with many interviewees citing a lack of digital skills as a drawback to digitalization;(2) organizational and cultural barriers, including a lack of funds, a traditional mindset, and a lack of awareness;(3) environmental barriers, including a lack of resources and digital infrastructure. Table 2 provides a summary of the key obstacles to which six organizations replied.

Table 4

*A review of the key barriers to digital transformation faced by MSMEs*

Organization	The Major Digital Technologies	The Barriers of Digital Transformation			
		Individual barriers	Organizational Barriers	Cultural barriers	Environment barriers
A	Digital Apps	Lack of digital skills		Traditional mindset	Lack of resources
B	WhatsApp		Lack funds		Lack of digital infrastructures
C	Social media	Lack of digital skills			Lack of resources





### Organization A

The transportation provider is essential in Bali. However, the expansion of public transportation is hampered by geographical constraints. Organization A is a cooperation partnership, and drivers from various regions of Bali will cooperate. For instance, driver A will pick up the customer from the airport in Bali and be responsible for the city tour; driver B will pick up the same customer from downtown to Lembongan (island) and be in charge of island transportation; and finally, driver C will pick up the same customer from Lembongan to Penida (island) and be in charge of the ride. When the customer returns from the island to the city, driver A will pick them up and return them to the airport.

According to the interview, they utilised GoJek, InDriver, and Crab in addition to WhatsApp, Facebook, and Instagram. WeChat and Google Maps navigation. These maps can assist them in communicating with clients, locating business prospects, navigating, and marketing themselves. For them, the most significant obstacles are cultural barriers, as most traditional people are not accustomed to using digital apps to book transportation online due to a lack of digital skills and a traditional attitude. In addition, save for these digital applications, they need more resources to build their business through other digital channels. Figure1 shows the situation of that owner of organization A who uses the digital apps.

*Figure 1.* The digital App that transportation suppliers used in Bali



### Organization B

Sea surfing is a popular activity in Bali, and thousands of surfers from around the world will visit the island to partake in the activity. Organization B is a surfboard rental and sale business based in Nyang Nyang Beach. The total workforce consists of two members. They display a printed WhatsApp QR code in front of the counter to encourage customers to take photos. Except for this app, this is their response when asked why they do not use more digital technology to help them build their business.

*"yeah, we set hard print of WhatsApp QR code in here since more and more clients want to pay online, but we can't supply this service because there is no internet near the beach. We wish to connect to the internet on our own, but we lack funds. We then approached the local tourism management office for assistance, but no one responded. We expect that customers would take a picture of the QR code and subscribe to our WhatsApp account afterwards, which will allow us to communicate with customers and bring new people to surf. Furthermore, it may aid in the promotion of our tiny business."*

### Organization C

Horizon Hills is a bar and restaurant in Lembongan, Bali, that has gained notoriety online. They served a variety of seafood, Chinese, and western dishes. The hotel's reputation attracts a large number of travellers due to its favourable position on the island and effective marketing on Instagram and Facebook. Aside from the food and beverage provider, they also offer a free pick-up service and live music will be played every night by a band. Prior to Covid-19, they do not use social media applications to promote and engage with customers. Additionally, following the event, they attempt to use Facebook, Instagram, and WhatsApp to promote themselves and publish images, menus, and videos online. When we questioned him about the impact of digital technologies on his company's growth, he stated that they do provide certain benefits, but that they also present some obstacles.

*"At beginning, we don't know how to use these apps, also don't know how to publish a video on it, but now, everything is better, even occasionally, our photo and video are not look beautiful as we believe. Furthermore, we can only use standard Apps to support our business; we are unaware of any alternative technologies that could assist us in the future in finding new clients. And the local government does not provide us with any digital training or financial assistance; to be honest, the consumer base is still small in comparison to before the Covid-19."*

### Organization D

Ayung Dewata Rafting is one of the many local companies that offer rafting in Bali. In addition to rafting, they also offer an ATV Ride service. This business utilizes numerous digital technologies for its operations. On the post machine, clients can utilize digital payment to pay their bills. When customers go rafting, the photographer will capture photos throughout the entire trip. After the clients have completed the activities, these photos will be uploaded to Google Drive and customers will be able to see these images and videos. Then, if clients wish to purchase these images, they can be downloaded online. In addition, they require clients to scan the QR code and follow them on Instagram and WhatsApp so that more and more people would get familiar with them and partake in this activity.

In addition, they confront obstacles while utilizing these digital technologies due to a lack of digital infrastructure; there is no internet near the forest and river, so they must pay more individuals to shoot images and movies in person. In addition, few people are proficient with these modern tools, such as marketing through social media. In addition, the relevant management lacked training and support to assist small businesses in utilizing digital technologies.

### **Organization E**

In Bali, there are thousands of housing providers; homestays are particularly popular. Penida la casa is a homestay on the island of Penida. The proprietor of the homestay is a member of a large family. Additionally, this family has other homestays in the area. They promote their accommodations on booking.com and Airbnb, among other online booking platforms. In addition, they employ Instagram, Facebook, and WhatsApp. Within the homestay, customers will have access to WiFi and will be able to connect to the internet at all times.

However, individuals face some obstacles when attempting to employ these modern technologies. Due to the Internet's infrastructure limitations, the Internet connection is not particularly strong. In addition, locals do not utilize these apps, so when the off-season arrives, the business will suffer. Lastly, the personnel in the homestay consists of only two people, and they are not adept at digital marketing. During the post-pandemic period, there are few guests who are unaware that other digital channels can help them raise their profit.

### **Organization F**

Alas Harum is a well-known tourist destination in Bali that enjoys online impact. This business is adept at using digital technologies for marketing and packaging compared to other organizations. It proclaimed itself the perfect healing heaven due to its stunning landscape, jungle swing, and Luwak Coffee. Before Covid-19, they begin to market themselves on social media platforms such as Instagram and Facebook. In addition, they collaborate with other tourism websites to promote them. In addition, they operate an online store on Shopee and Tokopedia and accept electronic payments to serve their customers better.

Even if their level of digitalization is more advanced than that of other organizations, they face challenges, such as the local population's unfamiliarity with online buying, which causes their online businesses to rely heavily on tourists. In addition, the promotional effects of conventional methods such as social media and tourism websites are limited. Therefore, they are keen to acquire other resources to advance their business. The personnel lack digital skills and awareness; they require digital talent to extend their perspective and create a digital plan for the future. Figure 2 shows the images of the interviewee at the store.

Figure 2 The interviewee at the store

### **Discussion and Limitation**

The objective of DT is to reorganize an organization's business using digital technology in order to increase profit, reduce expenses, and discover more innovation prospects. Internet-based data and application management for design, production, marketing, sales, and display constitute digital transformation (Ulas, 2019). Consequently, the digital revolution in management and tourist research is gaining popularity (Aldebert et al., 2011). Because the conventional characteristics of tourism, such as traffic, lodging, restaurants, and other service organizations, are highly fragmented, the obstacles and opportunities for small businesses are accentuated under the tourist system (Dredge et al., 2019).

This article focuses on identifying the key barriers to DT for MSMEs in the tourism industry in Bali, as well as determining which technologies small enterprises employ and to what extent. The tourist sector is a unique domain combining diverse and continuously expanding knowledge and technologies, primarily comprised of enterprises of various sizes, including multinational organizations with high-tech and small businesses with low-tech.



Physical, organizational, and intellectual separation are the defining characteristics of this business (Aldebert et al., 2011).

Based on data collected from six small businesses, we have determined that only a small portion of enterprises are successfully navigating the digital transformation route. Nonetheless, the majority of tourism MSMEs in Bali have a low degree of DT. They lack the resources, capacity, and ambition to effect further change. Moreover, the majority of them fall between low and medium levels of digitization (Dredge et al., 2019). The majority of respondents to our interview study use smartphone apps, online chat, websites, social networking, basic office applications, and internet banking. Big data, the internet of things, artificial intelligence, and cloud computing are not utilized. Even at this low and medium level, there are still significant obstacles for small tourism businesses pursuing a digital path.

The analysis demonstrated that one of the most significant obstacles is a lack of digital skills, corroborating the findings of a number of other studies indicating that the absence of skills among employees of MSMEs is a significant obstacle (Zimmermann, 2021). The second hurdle is the necessity for digital infrastructure, as the majority of tourist destinations in Bali are located in rural areas, making digital transformation a disadvantage. However, this is one of the attractions of ecotourism (Ilieş & GALLO, 2008). A conventional mindset is the third obstacle that will obstruct the digital journey. Residents are also prospective tourists. However, they lack digital literacy and are not accustomed to engaging in local tourism via digital means. Bali's tourism business cannot recover quickly if it depends solely on international visitors. The final big barrier is the need for additional resources, as the level of digitization in Bali's tourism industry is generally low to moderate. During our interview, the majority of participants expressed a desire for further digitization and channel knowledge resources. They require a plan, a version, and a guide to creating the digital road, but no one is willing to assist them. Moreover, a lack of digital expertise and financial assistance is also a hindrance, although they are less frequently mentioned than other important difficulties.

Despite the fact that our interview participant was willing to assist with the research and received a satisfactory interview result, the sample of tourism MSMEs is still tiny, consisting of only a few of the small tourist businesses in Bali. Second, our research focuses on particular questions regarding the obstacles. The other relative field has minimal connections. The process of tourism MSMEs digital transformation is a complex topic. Our research is focusing on a specific point. Thirdly, the survey was conducted during the post-epidemic period; not all nations, including Bali and Indonesia, have fully recovered from the Covid-19. Thus, certain data may have period-specific characteristics.

## **Conclusion**

The digital transformation of businesses is a new phenomenon, and no company has yet reached the last level of digital transformation (Kane et al., 2015). Even in this scenario, nearly all contemporary businesses recognize that digital transformation is crucial to their survival in the current business society (Schreckling & Steiger, 2017). Covid-19 accelerates the digital transformation, and with the renewal of high technology and greater access to channels for capturing technologies, all industries throughout the world are impacted by constant change (Jones et al., 2021; Jones et al., 2021). Numerous theoretical and practical studies on the extent and impact of the digital transformation on the tourism industry have been conducted in this context (Lam & Law, 2019). However, research on barriers and obstacles to the digital transformation of tourism in developing nations, particularly Indonesia, is relatively sparse.

We found three main obstacles in six small tourism businesses: lack of digital skills, organizational and cultural hurdles, and environmental constraints. Our interview data shows that digital incompetence is more common than resource shortages. Insufficient digital infrastructure and a traditional mindset also impede digitalization. Financial and digital talent shortages are mentioned, but number of times are limited. Company size, digitalization maturity, and responder education level strongly associated with how firms responded to barriers. The survey's results also depend on the interviewee's position and management's experience (Rupeika-Apoga et al., 2022).

Kane says organizations can adapt to the digital age if they have smooth hierarchies, increase decision speed, assist workers develop skills, and recognize constraints and challenges. This method exceeds Bali's small enterprises' digital transformation (Kane et al., 2015). Small businesses need different resources to successfully transition to digital (Chonsawat & Sopadang, 2020). Recognizing obstacles will help them build and digitalize. This study will serve as a resource for Bali micro, small, and medium-sized enterprise (MSME) practitioners interested in digitally reforming their enterprises. In addition, it offers policymakers a complete picture of the reality of Bali's low level of firm digitization. The discovery will benefit tourism micro, small, and medium-sized enterprises in speeding the rate of digitalization and gaining more government and professional aid.

This study aims to identify and clarify the obstacles that MSMEs in Bali's tourism industry face when embarking on digital transformation. The theoretical contribution of this study will significantly advance the understanding of digital transformation in Bali's small tourism businesses. Additionally, this study will assist other small enterprises in Bali in overcoming potential barriers during the process of digitalization.

## References

- Aldebert, B., Dang, R. J., & Longhi, C. (2011). Innovation in the tourism industry: The case of Tourism@. *Tourism management*, 32(5), 1204-1213.
- Bahtiar, R. A., & Saragih, J. P. (2020). Dampak Covid-19 terhadap perlambatan ekonomi sektor umkm. *Jurnal Bidang Ekonomi Dan Kebijakan Publik*, 7(6), 19-24.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- Bhaskara, G. I., & Filimonau, V. (2021). The COVID-19 pandemic and organisational learning for disaster planning and management: A perspective of tourism businesses from a destination prone to consecutive disasters. *Journal of Hospitality and Tourism Management*, 46, 364-375.
- Cha, K. J., Hwang, T., & Gregor, S. (2015). An integrative model of IT-enabled organizational transformation: A multiple case study. *Management Decision*.
- Chonsawat, N., & Sopadang, A. (2020). Defining SMEs' 4.0 readiness indicators. *Applied sciences*, 10(24), 8998.
- Cichosz, M., Wallenburg, C. M., & Knemeyer, A. M. (2020). Digital transformation at logistics service providers: barriers, success factors and leading practices. *The International Journal of Logistics Management*, 31(2), 209-238.
- Dredge, D., Phi, G. T. L., Mahadevan, R., Meehan, E., & Popescu, E. (2019). Digitalisation in Tourism: In-depth analysis of challenges and opportunities.
- Ilies, G., & GALLO, A. (2008). Qualitative Research on the Tourism in Maramureş Land. *GeoJournal of Tourism and Geosites*, 2(2), 129-136.



- Imtiaz, S., & Kim, D. J. (2019). Digital transformation: development of new business models in the tourism industry. *Culinary Science & Hospitality Research*, 25(4), 91-101.
- Jauhari, H., & Periansya, P. (2021). Economic Growth, Poverty, Urbanization, and the Small and Medium Enterprises (SMEs) in Indonesia: Analysis of Cointegration and Causality. *Binus Business Review*, 12(2), 143-150.
- Jones, M. D., Hutcheson, S., & Camba, J. D. (2021). Past, present, and future barriers to digital transformation in manufacturing: A review. *Journal of Manufacturing Systems*, 60, 936-948.
- Kallio, H., Pietila, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of advanced nursing*, 72(12), 2954-2965.
- Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). Strategy, not technology, drives digital transformation. *MIT Sloan Management Review and Deloitte University Press*, 14(1-25).
- Kudyba, S. (2020). COVID-19 and the Acceleration of Digital Transformation and the Future of Work. *Information Systems Management*, 37(4), 284-287.
- Lam, C., & Law, R. (2019). Readiness of upscale and luxury-branded hotels for digital transformation. *International Journal of Hospitality Management*, 79, 60-69.
- Li, L., Su, F., Zhang, W., & Mao, J. Y. (2018). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, 28(6), 1129-1157.
- Marx, S., Flynn, S., & Kylänen, M. (2021). Digital transformation in tourism: Modes for continuing professional development in a virtual community of practice. *Project Leadership and Society*, 2, 100034.
- Persada Indonesia, Y. Challenges and Opportunities for Women-Owned MSMEs in Bali: Impact of Covid-19.
- Pesonen, J. (2020). Management and leadership for digital transformation in tourism. *Handbook of e-Tourism*, 1-34.
- Rupeika-Apoga, R., Petrovska, K., & Bule, L. (2022). The Effect of Digital Orientation and Digital Capability on Digital Transformation of SMEs during the COVID-19 Pandemic. *Journal of Theoretical and Applied Electronic Commerce Research*, 17(2), 669-685.
- Saputra, N., & Herlina, M. G. (2021). Double-Sided Perspective of Business Resilience: Leading SME Rationally and Irrationally During COVID-19. Reference to this paper should be made as follows: Saputra, N, 125-136.
- Schreckling, E., & Steiger, C. (2017). Digitalize or drown. In *Shaping the digital enterprise* (pp. 3-27). Springer.
- Soritua, Y. (2015). Analysis of The Role of Tourism Sector to be the Main Income In The Region (A comparison study in the Tourism sector in Bali Province). *Referensi*, 3(2), 1-27.
- Taytari, P., Turunen, T., Klein, M., Eloranta, V., Biehl, S., Rajala, R., & Hakanen, E. (2017). Overcoming institutional and capability barriers to smart services.
- Ulas, D. (2019). Digital transformation process and SMEs. *Procedia Computer Science*, 158, 662-671.
- Vogelsang, K., Liere-Netheler, K., Packmohr, S., & Hoppe, U. (2019). Barriers to digital transformation in manufacturing: development of a research agenda.
- Xiang, Z., & Fesenmaier, D. R. (2017). Analytics in smart tourism design: concepts and methods. Springer.
- Yin, R. K. (2003). Designing case studies. *Qualitative research methods*, 5(14), 359-386.

- Yuliantari, N. P. Y., & Pramuki, N. M. W. A. (2022). The Role of Competitive Advantage in Mediating the Relationship Between Digital Transformation and MSME Performance in Bali. *Jurnal Ekonomi & Bisnis JAGADITHA*, 9(1), 66-75.
- Zach, F., Gretzel, U., & Xiang, Z. (2010). Innovation in the web marketing programs of American convention and visitor bureaus. *Information Technology & Tourism*, 12(1), 47-63. [Record #26 is using a reference type undefined in this output style.]