Adoption of Digitalization of Travel Agencies: Readiness and Resistance as Moderating Variables

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Abstract: *This study examines the dynamics of digitalization among travel agencies in Pampanga, Philippines, focusing on adoption, intention to use, readiness, and resistance within the framework of the Technology Acceptance Model (TAM) and the functional category of Innovation Resistance Theory (IRT). Using a quantitative descriptive-correlational design, data were collected from 180 travel agents across 60 Department of Tourism-accredited agencies. Results indicate that perceived usefulness significantly influences digital adoption intentions, with organizational readiness strengthening and resistance weakening this relationship. Key barriers include limited technical skills, financial constraints, and concerns over privacy and security. While agencies generally support digital transformation, overcoming these obstacles requires tailored strategies such as capacity-building programs, financial incentives, and infrastructure support. The study contributes to the discourse on sustainable digital adoption in tourism by emphasizing the importance of readiness and the need to mitigate resistance among SMEs.*

1. Introduction

The tourism industry is undergoing a rapid digital transformation, driven by technological innovations that reshape how services are delivered, consumed, and experienced. Digital technologies such as mobile applications, virtual reality, social media platforms, and online booking systems have become essential tools for enhancing operational efficiency, customer engagement, and competitiveness. These innovations empower travelers to co-create value throughout their journey and enable tourism businesses to streamline operations, personalize services, and expand market reach.

In the Philippines, the COVID-19 pandemic accelerated the adoption of digital platforms across tourism enterprises. Travel restrictions, health protocols, and shifting consumer behaviors forced agencies to pivot toward online operations, digital marketing, and virtual engagement. Initiatives such as the Travel Philippines mobile application, launched by the Department of Tourism (DOT) and the Tourism Promotions Board (TPB), exemplify efforts to promote smart tourism and ensure safe, seamless travel experiences under the "new normal." Despite these advancements, digital transformation remains uneven. Many travel agencies—particularly small and medium enterprises—face challenges in adopting digital technologies due to limited infrastructure, financial constraints, and gaps in digital literacy. While some firms demonstrate readiness through IT investments and staff training, others resist change, preferring traditional models or lacking the capacity to implement new systems effectively.

This duality of readiness and resistance is central to understanding the pace and success of digitalization in the tourism sector. Readiness reflects an organization's technical infrastructure, financial resources, and human capital, while resistance stems from perceived risks, usability concerns, and cultural inertia. The interplay between these factors determines whether digital adoption is embraced or hindered.

While digital technologies offer clear benefits for tourism businesses, their adoption remains inconsistent across travel agencies in the Philippines. Some firms demonstrate high levels of readiness, investing in infrastructure and training to leverage digital tools. Others resist adoption due to perceived risks, usability concerns, or lack of resources.

This study seeks to investigate:

- To what extent are travel agencies in the Philippines ready to adopt digital technologies?
- What forms of resistance hinder the adoption of digital tools among these agencies?
- How do readiness and resistance moderate the digitalization efforts in the tourism sector?

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- What are the adoption factors that influence the intention to use digital technologies?
- Is there a significant relationship between readiness and resistance factors and the adoption of digital technologies?
- What interventions can be proposed to enhance readiness and reduce resistance among travel agencies?

Two hypotheses guide the analysis:

H01: Adoption factors influence intention to use digitalization.

H02: Readiness and resistance moderate the relationship between adoption factors and intention to use.

This study contributes to the growing body of literature on digital transformation in tourism by focusing on the Philippine context—a developing country with unique infrastructural, cultural, and economic challenges. It offers practical insights for travel agencies navigating digital adoption and informs strategic interventions to enhance readiness and reduce resistance. The findings may also guide government and private sector initiatives aimed at fostering inclusive, resilient, and tech-enabled tourism ecosystems. Moreover, the study supports educators and curriculum developers in integrating digital competencies into hospitality and tourism education.

Focusing on accredited travel agencies operating in selected regions of the Philippines, the investigation explores their adoption of digital technologies, readiness levels, and resistance factors. The scope encompasses digital tools used for marketing, reservations, customer engagement, and internal operations. Analytical emphasis is placed on functional resistance—specifically value, risk, and usage barriers—while psychological resistance is not examined in depth. The study excludes informal travel operators and non-tourism enterprises to maintain sectoral relevance and methodological consistency.

Digitalization has become a transformative force in the global tourism industry, enhancing customer satisfaction, operational efficiency, and stakeholder engagement. Scholars emphasize that digital technologies lead to better outcomes for consumers and increased profitability for travel companies (Khurramov, 2020; Pencarelli, 2019). Digitalization empowers all stakeholders in the tourism ecosystem, enabling travelers to co-create value at every stage of their journey (Buhalis, 2020). These technologies have also redefined business models, offering firms innovative ways to deliver services, target customer segments, and streamline operations. However, the shift toward digital platforms challenges traditional intermediaries, requiring agencies to adapt or reposition themselves in niche markets (Almunawar et al., 2012).

The COVID-19 pandemic accelerated the relevance of virtual tourism and digital platforms. Perceived ease of use and usefulness significantly influenced intentions to adopt virtual tourism technologies, reinforcing the importance of user experience and tailored marketing (Senalasari et al., 2022). The Technology Acceptance Model (TAM) has been extended to include government policy and perceived risk, showing that usefulness and policy support promote adoption, while risk perceptions deter it (Zhao et al., 2022). Other studies confirm the value of digital tools—such as mobile wallets, chatbots, augmented reality, and blockchain—in enhancing marketing, customer engagement, and service delivery (Mathew & Soliman, 2020; Gonzales et al., 2019; Rashideh, 2020). However, adoption remains slow in many developing countries due to limited infrastructure, high costs, and digital literacy gaps.

Resistance to digitalization is a recurring theme in the literature. Innovation often brings uncertainty, and many tourism entrepreneurs are hesitant due to financial risks, usability concerns, and customer acceptance issues (Williams et al., 2020; Talwar et al., 2020). The Innovation Resistance Theory categorizes resistance into functional barriers—usage, value, and risk—that explain why users reject or delay adoption (Ram & Sheth, 1989). Usage barriers arise when new technologies disrupt existing habits and require effort to learn (Kleijnen et al., 2009; Chen & Kuo, 2017). Value barriers reflect doubts about the performance-to-price ratio of innovations (Laukkanen, 2016), while risk barriers involve privacy, security, and trust concerns (Moorthy et al., 2017; Seth et al., 2020). These barriers are particularly relevant in mobile services, online booking, and digital payments, where perceived threats to the status quo can significantly hinder adoption.

In the Philippine context, the pandemic catalyzed digital adoption, but structural barriers persist. Nearly 60% of households lack internet access, and high costs, uneven connectivity, and limited competition continue to impede progress (World Bank, 2020). Local studies reveal a growing openness to digitalization among travel

agencies, yet implementation depends on organizational capacity and user acceptance. While travel agencies in Cebu perceived digital tools as useful and easy to use, these perceptions did not significantly influence actual adoption intentions, suggesting that other factors—such as readiness and resistance—play a more decisive role (Maravilla, 2019). Agencies in Albay widely adopted digital platforms to sustain operations, though challenges in data security and customer loyalty remained (Roldan, 2023). The shift to digital marketing during agency closures underscored the critical role of online tools in maintaining visibility (De Jesus et al., 2022).

Digital payment adoption also surged during the pandemic. Two-thirds of businesses adopted digital payments, with 55% doing so for the first time. Younger firms, partnerships, and those with IT infrastructure were more likely to adopt, while smaller and less-prepared firms required support programs to overcome barriers (Acopiado et al., 2022). In hospitality and transport, digital innovations such as virtual hotel platforms and the SafeTravelPH app improved service delivery and collaboration (Esguerra & Arreza, 2021; Tiglao et al., 2023). Social media continues to shape travel behavior, with platforms like Facebook, Instagram, and YouTube influencing destination choices and promotional strategies (Arreza, 2021; Evangelista, 2022).

Entrepreneurial studies also shed light on digital adoption among MSMEs. Intrinsic motivations such as personal growth and extrinsic pressures like mobility restrictions and market conditions drive digitalization, but barriers such as poor infrastructure, digital skill gaps, and tech anxiety remain prevalent (Cueto et al., 2021). These findings reinforce the importance of understanding both readiness and resistance—key variables in this study—as they shape the extent and effectiveness of digitalization efforts among local travel agencies.

The study described the adoption, readiness, and resistance of travel agencies to the digitalization of their business. The adoption constructs focused on the Technology Acceptance Model, which includes perceived ease of use, perceived usefulness, and intention to use (Davis, 1989). Readiness was used as a moderating factor, encompassing technological infrastructure, organizational support, and environmental conditions (Noor et al., 2020). Resistance constructs are based on the Innovation Resistance Theory, which includes the functional category with three barriers: value, risk, and usage (Ram & Sheth, 1989). Based on previous studies, products and services offered—including the digital operations available—have been factors in the adoption and resistance of travel agencies to the digitalization of their business. Readiness of travel agencies on digitalization can moderate the intention to use digitalization.
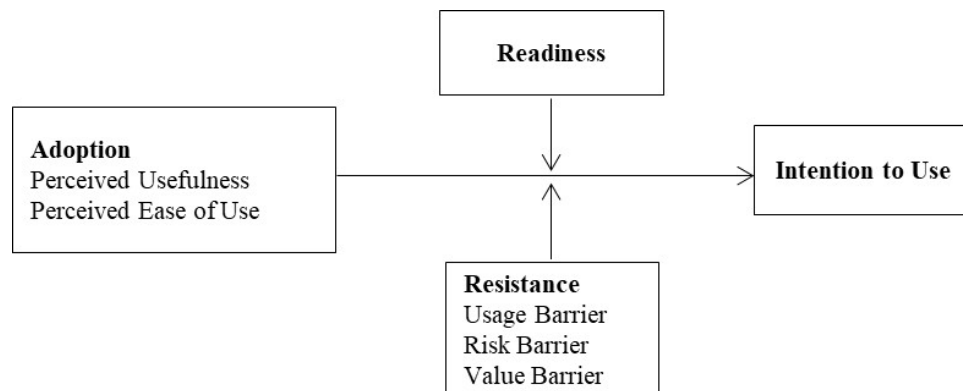

Figure 1: Paradigm of the Study

In this study, the adoption factors, readiness, resistance factors, and intention to use were used to evaluate the significant differences in the travel agents' response. The paradigm indicates that higher adoption and readiness can result in more intention to use digitalization. Furthermore, higher resistance can indicate a lesser intention to use digitalization. Also, the study investigated whether there is a significant relationship between adoption factors and intention to use digitalization and readiness, and resistance factors towards adoption factors and intention to use.

2. Materials and Methods

This study employed a quantitative descriptive-correlational research design to examine the relationship between adoption factors, readiness, resistance, and intention to use digital technologies among travel agencies. The design was selected to both describe existing digital practices and assess statistical relationships among variables derived from the Technology Acceptance Model (TAM) and Innovation Resistance Theory. The study was conducted in Pampanga, Philippines, a province with the highest number of accredited travel agencies in Central Luzon, as reported by the Department of Tourism Region 3 (2024). Pampanga's strategic location, supported by Clark Freeport and Clark International Airport, has positioned it as a hub for travel and tourism services, making it a suitable locale for investigating digitalization in travel agency operations.

The population of the study consisted of travel agents employed in Department of Tourism-accredited travel agencies in Pampanga. These agents are responsible for operational tasks including flight bookings, accommodation arrangements, visa assistance, car rentals, and tour package creation. Inclusion criteria required a minimum of six months of professional experience. The total number of accredited travel agencies in Pampanga is 60, and three travel agents from each agency were selected, resulting in a sample size of 180 respondents. A non-probability random quota sampling method was used to ensure proportional representation across agencies while introducing randomness in participant selection. This approach is appropriate for descriptive-correlational studies where diversity and balance are essential.

Data were collected using a structured survey questionnaire composed of three parts. The first part gathered information on the business profile of each travel agency, including products, services, and digital operations. The second part measured adoption factors using constructs from the Technology Acceptance Model (Davis, 1991), including perceived ease of use, perceived usefulness, and intention to use. These items were adapted from Cowen (2009), Lu et al. (2005), Chang (2004), and Nath et al. (2013). Readiness was incorporated as a moderating variable using items adapted from Noor et al. (2020). Each construct included five items, reworded and simplified to suit the local context and ensure clarity. The third part assessed resistance to digital technologies using the functional category of the Innovation Resistance Theory (Ram & Sheth, 1989), specifically usage, value, and risk barriers. Items were adapted from Talwar et al. (2020), with five statements per barrier, also rephrased for clarity and contextual relevance.

Responses were measured using a four-point Likert scale: (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly Agree. This scale was selected for its psychometric reliability in capturing degrees of agreement and behavioral intention. The instrument was reviewed by the research adviser and a statistician, and a pilot test was conducted with 15 travel agents from non-accredited agencies in Pampanga. The pilot test lasted five days and aimed to identify issues in wording, structure, and logic. Feedback indicated that the statements were clear, though minor formatting issues were noted in the online version. Adjustments were made accordingly before full deployment.

Data collection commenced immediately after the pilot test. Letters of consent were sent to accredited travel agencies to schedule survey administration. Surveys were conducted primarily face-to-face over a six-week period. For respondents unavailable for in-person participation, an online version of the questionnaire was distributed using Google Forms. Upon completion, all responses were collated and reviewed. Data were analyzed using Jamovi open statistical software. Statistical tools included frequency distribution to describe agency profiles, mean and standard deviation to assess central tendencies and variability, linear regression to examine relationships between adoption factors and intention to use, and moderation analysis using multiple linear regression to evaluate the influence of readiness and resistance on these relationships.

The scale for interpreting mean scores was as follows: 3.50–4.00 (Strongly Agree), 2.50–3.49 (Agree), 1.50–2.49 (Disagree), and 1.00–1.49 (Strongly Disagree). All data collection procedures adhered to ethical standards. Participation was voluntary, and informed consent was obtained prior to survey administration. Respondents were assured of anonymity and confidentiality. No monetary compensation was provided, and no known risks were associated with participation. The online survey link was deactivated once the sample size was reached. Data were stored on a password-protected computer accessible only to the researcher and retained for a maximum of three years before secure disposal.

All materials, instruments, and protocols used in this study—including the final version of the questionnaire, sampling framework, and statistical analysis scripts—are available upon request. The Jamovi syntax and Google Forms structure used for data collection can be shared with interested researchers for replication or

extension of the study. There are no limitations on the accessibility of materials or data. Any future use of these materials should cite this publication accordingly.

3. Results

Core travel services—flight bookings, hotel reservations, and tour packages—remain the primary offerings of travel agencies, confirming continued demand for bundled travel solutions (Karthikeyan & Franklin, 2021). Travel documentation is widely available, while car rentals are less common, likely due to outsourcing.

Digital infrastructure is solid in basic tools like desktop computers, digital payments, and platforms such as Booking.com and Agoda (Hassan, 2020). However, advanced technologies like websites, tablets, and AR/VR show low adoption, reflecting uneven digital maturity and possible resistance (Cham et al., 2024). Notably, chatbot use is high, suggesting a preference for automated messaging over full web integration.

Products/Services	Frequency	Percentage
Flight Bookings	179	99%
Hotel Bookings	177	98%
Travel Documentation	152	84%
Domestic Tour Packages	176	98%
International Tour Packages	175	97%
Car Rental	124	69%
Digital Presence/Technology Used	**Frequency**	**Percentage**
Website	64	36%
Online Transactions (Booking.com, Agoda, TripAdvisor)	165	92%
Tablet or iPad	30	17%
Desktop Computer	171	95%
Global Distribution System	113	63%
Augmented Reality/Virtual Reality/Mixed Reality	29	16%
Chatbots	140	78%
Digital Payments (Bank Transfers, GCash, Card Payments)	169	94%

Table 1: Frequency and Percentage Distribution of Travel Agencies Business Profile

Travel agencies demonstrated strong adoption of digitalization in their business operations, particularly in terms of perceived ease of use. Respondents consistently expressed strong agreement that digital tools—such as booking platforms, payment systems, and global distribution systems—are intuitive, user-friendly, and easy to navigate. These findings align with previous research noting that digitalization enhances productivity by simplifying operational tasks (Maravilla & Gantalao, 2019). The data suggest that usability is not a barrier but a key facilitator of digital transformation, contributing to the widespread adoption of tools like online platforms and chatbots.

Similarly, perceived usefulness was rated highly across all indicators. Respondents recognized digitalization as a driver of efficiency, innovation, and improved service quality. Digital tools were seen to accelerate task completion, support creative service development, and enhance access to information. These results reinforce the idea that travel agencies adopt digital technologies not merely for convenience but because they deliver tangible operational benefits. This supports the assertion that digitalization boosts productivity when effectively integrated (World Economic Forum, 2023).

Together, the findings confirm that both ease of use and usefulness are central to digital adoption behavior in the travel industry. Agencies are not only comfortable using digital tools—they value them for their ability to improve performance and drive innovation.

Perceived Ease of Use Indicators	Mean	Interpretation
Digitalization is easy to learn to operate and navigate	3.74	Strongly Agree
Digitalization is flexible to interact since no confusion in using	3.62	Strongly Agree
Digitalization gives clearer and understandable in interaction	3.64	Strongly Agree
Digitalization allows to easily become skillful as it enables to have more accurate information	3.68	Strongly Agree
Digitalization is easy to use as it allow to do what an individual want to do	3.71	Strongly Agree
Perceived Usefulness Indicators	**Mean**	**Interpretation**

Digitalization enables to accomplish tasks more quickly	3.85	Strongly Agree
Digitalization increases productivity and improves quality of tasks	3.83	Strongly Agree
Digitalization enhances effectiveness of performing tasks as it gives greater control over the process	3.79	Strongly Agree
Digitalization makes tasks easier and easier to innovate products and services materials	3.84	Strongly Agree
Digitalization is useful as it provides access to a lot of information	3.81	Strongly Agree

Table 2: Mean and Verbal Interpretation on the Adoption of Digitalization of Business Operations of Travel Agencies in Terms of Perceived Ease of Use and Perceived Usefulness

Travel agents expressed a strong and future-oriented intention to adopt or continue using digital technologies in their business operations. All indicators reflect a clear commitment to digitalization as a long-term strategy rather than a temporary trend. Respondents indicated that digital tools will be consistently used across functions such as sales, marketing, and daily operations, highlighting confidence in their relevance and effectiveness.

The results also suggest that digitalization is perceived as integral to improving task performance and operational efficiency. Respondents not only plan to use digital tools themselves but are also willing to recommend their adoption to others, signaling advocacy and institutional support for digital transformation. This reinforces the view that intention to use is driven by both necessity and strategic foresight.

Intention to Use Indicators	Mean	Interpretation
Digitalization will probably use or continue to use in the business operations	3.83	Strongly Agree
Digitalization will probably begin to use or continue to use in the workplace to perform tasks	3.81	Strongly Agree
Digitalization will frequently use in the future for sales, marketing, processes and operations	3.83	Strongly Agree
Digitalization will intend to adopt in the business operations	3.81	Strongly Agree
Digitalization will be recommended to others to use in business operations	3.79	Strongly Agree

Table 3: Mean and Verbal Interpretation on the Adoption of Digitalization of Business Operations of Travel Agencies in Terms of Intention to Use

Travel agencies demonstrated a moderate level of readiness for digital transformation. All indicators were rated as agree, suggesting that while foundational elements are in place, full preparedness is still developing. Respondents confirmed the presence of basic technological infrastructure, such as booking systems and internet-connected devices, indicating operational capability for digitalization. Staff competence in using digital tools was acknowledged, though the need for further training and upskilling remains. Lower ratings on financial capital, internet accessibility, and organizational openness suggest that structural and environmental limitations may hinder full-scale digital adoption. These findings align with previous research identifying budget constraints as a major barrier for small and medium enterprises (Kossai & Piget, 2024).

Readiness Indicators	Mean	Interpretation
The business has technological infrastructure (e.g. systems, computers) for digitalization of operations	3.46	Agree
The business has competent staff in the field of digitalization	3.37	Agree
The business has capital to incorporate the digitalization in operations	3.28	Agree
The business has extent of internet penetrated in their location	3.25	Agree
The business has high bureaucratic level that are open to digitalization of operations	3.26	Agree

Table 4: Mean and Verbal Interpretation of the Readiness of Travel Agencies on Digitalization of Business Operations

The results indicate that travel agencies exhibit limited resistance to digitalization. Respondents generally did not perceive digital tools as confusing or difficult to operate, suggesting that usability is not a significant barrier. While there was some recognition that learning the features of digital systems requires time and effort, digital platforms were viewed as manageable and intuitive overall.

In contrast, concerns related to risk were more evident. Respondents expressed apprehension about data privacy and security, the financial cost of integrating digital systems, and the adequacy of internet and telecom infrastructure. There were also concerns about system vulnerability and the need for frequent upgrades to maintain functionality. These risk-related issues appear to be the primary source of hesitation in adopting more advanced digital tools. As noted by Florido-Benitez (2024), digitalization in travel agencies exposes customer data to potential breaches, highlighting the importance of robust cybersecurity measures.

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Perceived value was not identified as a barrier. Respondents disagreed with statements suggesting that digitalization lacks benefits or is unnecessary. They acknowledged the advantages of digital tools in enhancing efficiency, service quality, and innovation. Even the idea that digitalization requires complex systems for integration was not widely accepted, indicating that the perceived value of digitalization supports its adoption.

Resistance on Digitalization: Usage Barrier Indicators	Mean	Interpretation
Digitalization needs to learn its features and characteristics	2.56	Agree
Digitalization has systems that are hard to operate and navigate	2.44	Disagree
Digitalization has huge amount of information that confuse users	2.39	Disagree
Digitalization has various changes for the business to adapt	2.49	Disagree
Digitalization put constraints during excessive use	2.43	Disagree
Resistance on Digitalization: Risk Barrier Indicators	**Mean**	**Interpretation**
Digitalization requires large capital to integrate in the business	2.58	Agree
Digitalization concerns privacy and security of information	2.65	Agree
Digitalization needs sufficient telecommunications bandwidth and infrastructure	2.61	Agree
Digitalization is vulnerable and exposed to exploitation	2.54	Agree
Digitalization when not upgrading and updating can limit its purpose	2.59	Agree
Resistance on Digitalization: Value Barrier Indicators	**Mean**	**Interpretation**
Digitalization doesn't provide enough benefits to the business	1.83	Disagree
Digitalization benefits are useless to the business	1.74	Disagree
Digitalization is evolving and business needs to innovate and adapt	2.27	Disagree
Digitalization lacks universal standards for quality, security and reliability	1.95	Disagree
Digitalization is difficult to integrate and requires special automated warehouses	2.03	Disagree

Table 5: Mean and Verbal Interpretation on the Resistance to Digitalization of Business Operations of Travel Agencies in Terms of Usage, Value, and Risk Barrier

The regression model summary reveals a moderately strong and statistically meaningful relationship between adoption factors and the intention to use digitalization among travel agencies. The correlation coefficient indicates that as perceptions of digitalization—particularly ease of use and usefulness—increase, so does the intention to adopt or continue using digital tools. The coefficient of determination shows that nearly half of the variance in behavioral intention can be explained by the adoption factors included in the model, underscoring their predictive relevance.

These results support the theoretical foundation provided by the Technology Acceptance Model (TAM), which identifies perceived usefulness and ease of use as key determinants of technology adoption (Davis, 1989). In this study, perceived usefulness emerged as a statistically significant predictor of intention to use digitalization, suggesting that travel agencies are more inclined to adopt digital tools when they recognize clear operational benefits such as enhanced efficiency, productivity, and service quality. In contrast, perceived ease of use did not significantly influence behavioral intention, despite earlier findings showing that respondents generally agree digital tools are easy to use.

This distinction reinforces the idea that usefulness plays a more critical role in driving adoption decisions, especially when users are already familiar with the technology. While ease of use may facilitate initial engagement, it is the perceived value and impact of digitalization that ultimately motivates continued use and recommendation. These insights suggest that travel agencies should focus on communicating the tangible benefits of digital tools to strengthen adoption, rather than relying solely on their usability.

The Moderating Relationship of Adoption and Intention to Use on the Digitalization of Business Operations of Travel Agencies				
Model	**R**	**R²**		
1	0.67	0.449		
The Relationship of Adoption Factors to Intention to Use the Digitalization of Business Operations of Travel Agencies				
Predictor	**Estimate**	**SE**	**t**	**p**
Intercept	1.134	0.2277	4.979	< .001
Perceived Ease of Use:	0.0187	0.0467	0.4	0.69
Perceived Usefulness	0.6829	0.0664	10.287	< .001

Table 6: Linear Regression Results and Relationship Between Adoption Factors and Intention to Use Digitalization

The analysis reveals that adoption factors significantly influence the intention to use digitalization among travel agencies. Perceptions of usefulness and ease of use are positively associated with behavioral intention, confirming the relevance of the Technology Acceptance Model (Davis, 1989). However, this relationship is not uniform; it is moderated by both readiness and resistance.

Readiness plays a complex role. While adoption factors strongly predict intention to use, readiness alone shows a slight negative effect. This may reflect that agencies with high readiness are already engaged in digital practices, resulting in less variation in intention. More importantly, the interaction between adoption and readiness is significant, indicating that readiness strengthens the positive relationship between adoption factors and intention. Agencies are more likely to act on their perceptions of digitalization when they also have the infrastructure, skills, and organizational support to implement it.

The influence of adoption factors on intention to use is present across all levels of readiness but varies in strength. At low readiness, the effect is weaker, suggesting that structural limitations may dampen the impact of positive perceptions. At high readiness, the effect is stronger, confirming that organizational preparedness enhances the likelihood of digital adoption. These findings suggest that promoting digital tools alone is insufficient; improving readiness is essential to maximize adoption.

Resistance also acts as a moderating factor. While adoption factors positively influence intention to use, resistance—such as concerns about cost, security, and infrastructure—has a negative effect. The interaction between adoption and resistance is significant, showing that resistance alters the strength of the adoption-intention relationship. Agencies that perceive high resistance may hesitate to adopt digital tools, even if they find them useful. Conversely, when resistance is low, the positive influence of adoption factors is amplified.

The relationship between adoption and intention varies across levels of resistance. At low resistance, the effect is present but moderate, possibly due to a lack of urgency. At high resistance, the effect becomes stronger, suggesting that in challenging environments, strong positive perceptions of digitalization are even more critical for driving adoption. This pattern indicates that resistance does not necessarily block adoption; instead, it can heighten the importance of perceived benefits in overcoming barriers.

Findings emphasize that both readiness and resistance significantly shape how adoption factors translate into behavioral intention. Digital transformation strategies should not only promote the usability and benefits of technology but also address organizational preparedness and manage perceived barriers. Doing so will enhance the effectiveness of digitalization efforts in the travel industry.

The Moderating Effect of Readiness on the Adoption and Intention to Use of Digitalization on Business Operations				
M=Readiness	**Estimate (B)**	**SE**	**Z**	**p**
ADOPTION	0.841	0.0669	12.57	< .001
Readiness	-0.212	0.0267	-7.93	< .001
ADOPTION ✻ Readiness	0.16	0.0498	3.21	0.001
The Moderating Effect of Readiness on the Relationship of Adoption and Intention to Use at Different Levels				
Levels of Readiness	**Estimate (B)**	**SE**	**Z**	**p**
Average	0.841	0.0676	12.4	< .001
Low (-1SD)	0.715	0.0557	12.8	< .001
High (+1SD)	0.967	0.096	10.1	< .001
The Moderating Effect of Resistance on the Adoption and Intention to Use of Digitalization in Business Operations				
M=Resistance	**Estimate (B)**	**SE**	**Z**	**p**
Adoption	0.506	0.0572	8.84	< .001
Resistance	-0.114	0.0204	-5.58	< .001
Adoption ✻ Resistance	0.298	0.0569	5.23	< .001
The Moderating Effect of Resistance on the Relationship of Adoption and Intention to Use at Different Levels				
Levels of Resistance	**Estimate (B)**	**SE**	**Z**	**p**
Average	0.506	0.0616	8.21	< .001
Low (-1SD)	0.198	0.0742	2.67	0.008
High (+1SD)	0.814	0.0977	8.33	< .001

Table 7: Moderation Analysis: Readiness and Resistance as Moderators of the Relationship Between Adoption Factors and Intention to Use

4. Discussion

This study reveals a layered and context-sensitive understanding of digitalization adoption among travel agencies, where behavioral intent is high but actual implementation is shaped by a complex matrix of perceived value, organizational readiness, and structural resistance. The findings reinforce the foundational assumptions of the Technology Acceptance Model (TAM), particularly the dominant role of perceived usefulness in driving intention (Davis, 1989). However, they also challenge the sufficiency of TAM in isolation, suggesting that adoption is not solely a cognitive decision but one embedded in organizational and environmental realities (Buhalis & Sinarta, 2019).

The limited predictive power of perceived ease of use, despite its favorable ratings, indicates that usability alone does not compel action. Agencies appear to prioritize strategic outcomes—such as operational efficiency, customer engagement, and competitive advantage—over interface simplicity (Morosan & DeFranco, 2016). This implies that digitalization strategies must move beyond user-friendly design to emphasize measurable business impact (Navío-Marco et al., 2018).

The moderating role of readiness is particularly salient. Agencies with higher levels of digital maturity—defined by infrastructure, skills, and organizational support—are significantly more likely to translate favorable perceptions into adoption behavior (Gretzel et al., 2020). This suggests that digitalization efforts must be scaffolded by capacity-building initiatives that enhance not just access to technology but the ability to deploy it meaningfully (UNWTO, 2021).

Resistance, often framed as a barrier, emerges here as a paradoxical amplifier. At higher levels of resistance—especially those rooted in external concerns such as cost, security, and infrastructure—the influence of perceived usefulness becomes more pronounced (Kim & Qu, 2020). This counterintuitive dynamic suggests that resistance does not suppress adoption but intensifies the need for compelling justification. Agencies facing greater obstacles appear to engage in more deliberate evaluation, relying heavily on the perceived strategic value of digital tools to overcome hesitation (Laumer et al., 2016).

These insights carry significant implications for both theory and practice. Theoretically, they call for an expanded adoption framework that integrates contextual moderators such as readiness and resistance into existing models like TAM (Gretzel et al., 2020). Practically, they demand differentiated digitalization strategies that are sensitive to organizational capacity and environmental constraints. Agencies with low readiness require foundational interventions—such as infrastructure investment, digital literacy training, and technical support—while those grappling with resistance need targeted messaging that addresses risk perceptions and demonstrates tangible value (Navío-Marco et al., 2018; UNWTO, 2021).

Moreover, the study contributes to the broader discourse on digital transformation in emerging markets, where resource limitations and uneven access remain persistent challenges (Buhalis & Sinarta, 2019). It underscores the importance of inclusive digital development, where adoption is not merely encouraged but enabled through systemic support. This perspective is especially relevant in the post-pandemic tourism landscape, where digital resilience has become a critical determinant of recovery and competitiveness (Gretzel et al., 2020).

5. Conclusion

Digitalization in travel agencies emerges from this study not as a straightforward technological upgrade, but as a strategic and context-dependent transformation. The intention to adopt digital tools is clearly present, driven by strong perceptions of usefulness. However, the realization of this intent is contingent upon organizational readiness and the ability to navigate structural resistance. These findings suggest that digital adoption is shaped by both internal capabilities and external constraints, requiring more than enthusiasm—it demands strategic enablement.

Effective implementation of digital tools in travel agencies depends on recognizing and responding to their operational realities. Agencies operating with limited infrastructure and constrained resources benefit most from foundational interventions. These include access to reliable internet, affordable technologies, and targeted digital literacy programs. Rather than assuming uniform capacity across the sector, digitalization efforts must be customized to meet agencies where they are—technologically, financially, and organizationally. Emphasizing digital tools as enablers of business growth, rather than mere technical solutions, will foster deeper engagement and more sustainable adoption.

Policy and industry stakeholders play a pivotal role in shaping the conditions for successful digital transformation. Inclusive frameworks that prioritize small and medium-sized enterprises (SMEs), particularly those in underserved regions, are essential. Investments in infrastructure, public-private partnerships, and regulatory clarity can reduce barriers and build trust in digital systems. Moreover, risk management strategies—addressing cybersecurity, data privacy, and operational continuity—should be embedded in digitalization programs to mitigate resistance and enhance perceived value. The tourism sector's long-term resilience will depend on its ability to integrate digital tools in ways that are equitable, scalable, and responsive to diverse operational contexts.

Academic inquiry into digital adoption must evolve alongside these practical challenges. Future research should explore how readiness and resistance shift over time, especially as agencies gain experience with digital tools and as technologies themselves become more sophisticated. Longitudinal studies can illuminate the trajectories of digital transformation, while comparative research across sectors and regions can identify structural enablers and inhibitors. Additionally, qualitative investigations into managerial decision-making, stakeholder engagement, and organizational culture will enrich our understanding of how digitalization is negotiated in practice.

Ultimately, this study affirms that digitalization is not a one-size-fits-all endeavor. It is a dynamic, negotiated process shaped by strategic priorities, contextual realities, and adaptive capacity. Recognizing this complexity is essential for designing interventions that are not only effective but also inclusive and sustainable. By aligning technological innovation with organizational readiness and contextual support, the tourism sector can build a future that is resilient, competitive, and digitally empowered.

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