

# Predictors of Travel Intermediaries' Inclination Towards E-Commerce: Integrating UTAUT-1 and E-Readiness

Reyaz Ahmed Qureshi\*, Muneer Ahmad Kashkari\*\*, Mudasir Ahmad Mir\*\*\*

## Abstract

The tourism sector is currently undergoing a tremendous shift based on technology. The advantages of e-commerce have led to expansion across several commercial sectors, including the tourist industry. E-commerce offers a welcoming environment for travel firms to compete better, which may also have a positive influence overall. The study proposes an extended UTAUT model to investigate the behavioural intention of travel intermediaries towards e-commerce adoption. A sample of 203 travel agencies and tour operators was chosen for the study using a questionnaire as a data collection instrument. Structural Equation Modelling was applied to analyse and test the relationship of the variables. Findings reveal that facilitating conditions have an important influence on predicting e-commerce adoption among the travel agents and tour operators. Findings highlight E-readiness as the least important predictor of travel intermediaries' willingness to adopt e-commerce.

**Keywords:** Travel Intermediaries, Technology, E-Commerce, UTAUT, Business

## Introduction

Over the recent decades, humans have employed technology to respond to challenging circumstances. The global economy and nearly every element of human existence have undergone a dramatic transformation as a result of a technological revolution (Kasem & Hassanein, 2014). All sectors are seeing growth and expansion in technology. Similar to how technology is influencing

other industries, tourism is developing around information technology that contributes plenty to the tourism industry (Khatri, 2019), and its adoption is mostly used to govern operational functions in the tourism business. As contemporary technology has developed, the whole tourist industry has undergone several changes that are seen in both the demand for and provision of services (Januszewska et al., 2015). The internet revolution created many possibilities and difficulties. In this new high-tech world, e-business empowerment is crucial for an organisation's success, especially in the leisure and tourism sector, given its advantages in scalability and marketing advantage (Bandara & Silva, 2016). The advantages of e-commerce have led to expansion across several commercial sectors, including the tourist industry. Since the tourist business is a service-based industry, e-commerce may help it to improve its offerings. The performance of many various industries, including the tourist sector, might be influenced by e-commerce (Salwani et al., 2009).

The travel business is the best depiction of a field where information technology has had a substantial impact (Warden & Tunzelana, 2004). Travel agencies and tourism providers compete for a sizable client base as a result of the internet's transformation of the industry's distribution channels (Nevmerzhitskaya, 2013). Within the ever-changing environment of the travel sector, the utilisation of e-commerce platforms by travel agents has grown significantly important for their ability to compete and endure in the field (Mishra & Gupta, 2020). Travel intermediaries, like travel agencies and tour operators, play a crucial role as links connecting travellers to service

\* Associate Professor, Department of Tourism, Hospitality & Leisure Studies, University of Kashmir, Jammu & Kashmir, India. Email: drqureshi@uok.edu.in

\*\* Research Scholar, Department of Tourism, Hospitality & Leisure Studies, University of Kashmir, Jammu & Kashmir, India, Email: muneerahmad111.ma@gmail.com

\*\*\* Lecturer (C), Department of Tourism, Hospitality & Leisure Studies, University of Kashmir, Jammu & Kashmir, India. Email: mirmudasir@cukashmir.ac.in

providers, making transactions easier and improving the overall travel experience (Gretzel et al., 2015).

As stated by Buhalis (1998), travel intermediaries are recognised as one of the pillars of the tourism industry because of their vital roles as facilitators between clients and suppliers. These intermediaries serve as a bridge between clients and providers of travel services (Dolnicar & Laesser, 2007). By making affordable distribution methods available via the use of e-commerce and ICT, travel intermediaries' roles become redundant, reducing them to mere intermediaries who are viewed as superfluous (Cazares, 2016). Travel agencies view disintermediation, direct booking with suppliers and re-intermediation via the Internet or mobile phones as threats. Online travel agencies give customers all the advantages, such as custom offers that aren't available through the conventional route, assisting the business as a whole in expanding in terms of both sales and value. According to Garkavenko et al. (2010), for an organisation to succeed, its ability to integrate into the market will largely depend on its ability to comprehend and implement ICTs, which enable businesses to better contact their target consumer base and increase operational efficiency. Even while small companies are vital to the economies of developing nations, there are valid worries about ICT adoption, particularly e-commerce. E-commerce strives to improve the inter- and intra-connectivity of tourism companies by leveraging technological innovation, therefore improving the interaction between tourism firms and facilitating information transmission. From the current level of tourism growth, the introduction of e-commerce is proven to be beneficial and constructive; however, it is important to stress that, despite the potential benefits, the impact of e-commerce emergence on the industry is quite minor. Furthermore, it is critical to recognise that the domestic tourist sector of poor countries has not yet completely realised the potential of tourism e-commerce (Zhang & Gui-Pei, 2008). Despite the recognised significance of integrating e-commerce, numerous travel intermediaries face obstacles in fully embracing digital platforms. Factors such as organisational inertia and the perceived complexity of technology persist in hindering widespread adoption (Henama & Alpeni, 2020). The majority of previous research has addressed the function of numerous influencing elements when studying technology adoption processes in diverse contexts and geographical regions. Despite this, there is

a dearth of literature on e-commerce acceptance in the tourism businesses in developing regions. Therefore, it is imperative to comprehend the behavioural inclinations of travel intermediaries towards e-commerce. This understanding is crucial for formulating successful strategies aimed at fostering technological incorporation and improving the competitiveness of the industry.

UTAUT model i.e., 'Unified Theory of Acceptance and Use of Technology', has developed as a major research framework in the field of technology adoption. This model has been recognised by scholars and is regarded as giving a more comprehensive explanation of technology acceptance and is recognised as one of the most parsimonious behavioural theories than other models currently in use (Altalhi, 2021). In addition to UTAUT-1, the idea of e-readiness involves both the preparedness of organisations and individuals to adopt and efficiently utilise electronic technologies (Soomro et al., 2020). Drawing upon the theoretical foundations of UTAUT-1 and e-readiness, the primary objective of this research is to examine the determinants that impact the behavioural inclination of travel intermediaries in embracing e-commerce. Through a thorough analysis of these determinants, the study endeavours to offer practical recommendations to key players in the industry, policymaker and technology providers, with the ultimate goal of promoting the widespread acceptance of e-commerce platforms within the travel sector and facilitating sustainable development.

## Literature Review and Hypotheses Development

Before e-commerce, only larger firms could go global. The use of e-commerce business models opens up a plethora of lucrative opportunities for worldwide manufacturers and service companies and online retailing is currently a desirable and affordable way for start-ups or smaller businesses to acquire new clients (Malhotra & Malhotra 2006). Not all firms employ e-commerce; some steer clear of it altogether. According to Sumner and Klepper (1998), some organisations choose to use a small portion of the current IT infrastructure before gradually expanding their information technology-based expertise.

The tourism sector is currently undergoing a tremendous shift based on technology. According to Carlisle et al. (2023), the shift is characterised by the induction of

online reservation systems and GDSs. In most developing countries, the comprehensive implementation of IT-based tourism platforms continues to be incomplete (Rahman, 2021). Due to their crucial role as middlemen in the service delivery process, tour operators and travel agencies have met a range of problems as a result of this technology. The extra six P's of the tourist marketing mix—physical evidence, people, partnerships, packaging, programming and processes underline the necessity for information systems as a marketing tool for tour operators and travel agencies (Mill & Morrison, 2002).

The UTAUT model proposed that performance expectancy, effort expectancy, social influence and facilitating conditions are the main variables that affect a person's behavioural intention. These four key factors are crucial in influencing attitudes towards adopting a certain technology or innovation. The model demonstrated to have a high degree of explanatory power of 70% when evaluated using empirical data (Venkatesh et al., 2003). Since its inception, the model has seen widespread application (Alzahrani & Goodwin, 2012).

### Performance Expectancy

According to Gupta and Dogra (2017), performance expectancy can be described in terms of a variety of things, such as usefulness, convenience, time savings and productivity. Venkatesh et al. (2003) defined it as the extent to which a person's confidence in applying a given skill enhances work rendition i.e., an individual will have the expectation that their performance will be significantly improved using a certain technology or part of it. Since users place a high value on a strong use-execution relationship, Performance Expectancy has a major influence on e-commerce adoption (Agarwal & Karahanna, 2000). Performance outcomes are exclusively focused on work-related outcomes. Performance expectancy was also identified as a key indicator of technology adoption in earlier research (Ayeh et al., 2013). Therefore, the following hypothesis is proposed.

*H1: Performance expectancy exerts a significant influence on behavioural intention of travel intermediaries to adopt e-commerce.*

### Effort Expectancy

Effort expectancy is an important factor for both the TAM Model and the UTAUT model because it affects whether

people intend to adopt new technologies or not. The degree of ease with which people can utilise a particular technology is referred to as effort expectancy. Curtis et al. (2010), also defined it as the level of effortlessness involved in technology adoption, which influences user intentions. Harindranath et al. (2008), assert that it is essential to utilise this specific element efficiently if a business wants to design a user-friendly system. Several researchers have backed the empirical link between effort expectancy and behavioural intention (Venkatesh et al., 2012; Abu-Shanab & Pearson, 2007). In keeping with this, we propose:

*H2: Effort expectancy significantly impacts the behavioural intention of travel intermediaries to adopt e-commerce.*

### Social Influence

It is the idea of adjusting to change while taking into account what other people think is important. According to Harindranath et al. (2008), social influence depends on how behaviours related to technology use are evaluated. According to Dwivedi et al. (2011), the three notions in SMEs—subjective norms, image and social factors—are what this theory relies on. Each of the aforementioned elements affects how individuals behave at work and how they react to the social atmosphere there. Outside forces like friends, co-workers, family, or media like the internet can motivate people to adopt tech-based innovations (Eckhardt et al., 2010). Some antithetical results could be found in the previous literature on how social influence affects behavioural intentions. According to Lian and Yen (2014), social influence plays an important role in people's intention to adopt new technologies, whereas Shin (2009) found no proof to favour the relationship between social impact and behavioural intention. As a result, we propose:

*H3: Social influence has a significant impact on behavioural intention of travel intermediaries to adopt e-commerce.*

### Facilitating Conditions

The concept of facilitating conditions refers to how users view the information and tools at their disposal to employ them in their daily routines (Venkatesh et al., 2003). It was defined as the extent of the technological and

organisational infrastructure necessary for a technology-based system (Thomas et al., 2013). It is an environment where administrative and technological setups have been made to make use of the system easier (Eweoya et al., 2016). The facilitating condition has the propensity to mould employee behaviour favourably and is crucial to comprehending the acceptance and implementation of contemporary technology. Therefore, people are unlikely to adopt e-commerce if not given the required resources and the knowledge that goes along with it. Therefore, we hypothesise that:

*H4: The presence of facilitating conditions exerts significant effect on behavioural intention of travel intermediaries to adopt e-commerce.*

## E-Readiness

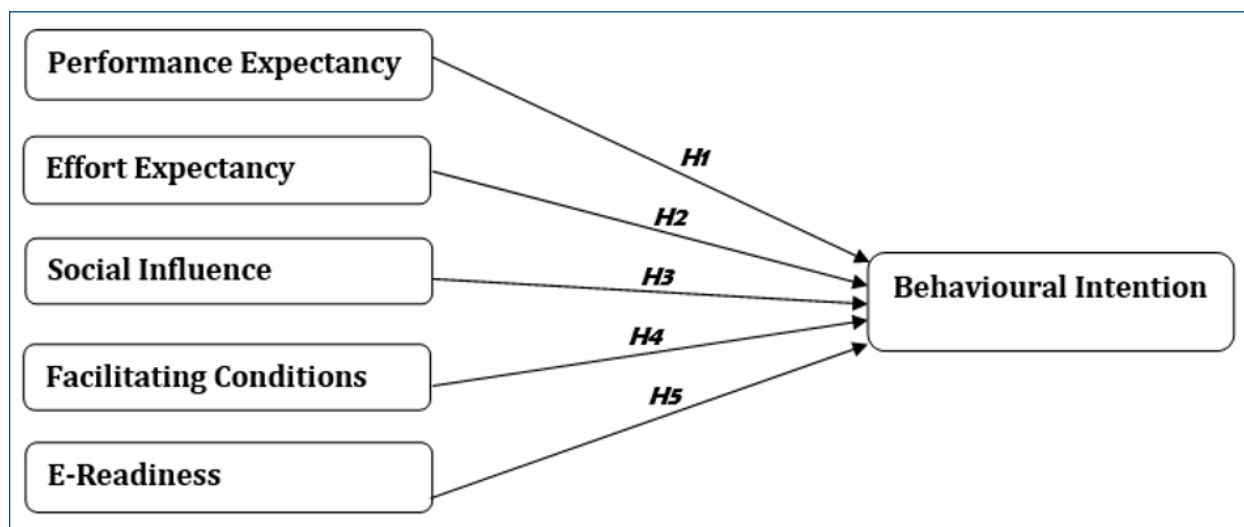
E-readiness is a variable that assesses how a business considers the role of existing levels of technological infrastructure and know-how in e-commerce adoption. e-commerce adoption and executives' opinions about it can both be directly influenced by the amount of organisational e-readiness (Brdesee, 2013). E-readiness is defined as the capacity to engage in 'e-business and e-commerce' (Parker, 2000). It can also be characterised as an economy's ability to convert existing enterprises into new ones, as evidenced by the ability to conduct

real-time economic transactions in any format, anywhere and at any time (Bui et al., 2002). It is argued here that the concept of e-readiness in developing regions opens up new avenues for understanding global e-commerce acceptance and assimilation. Selim, (2008) discovered findings that indicate that e-readiness relies on establishing e-commerce adoption at the administrative and societal levels. E-readiness frameworks serve as key tools for determining whether a country or business is ready to fully capitalise on the opportunities provided by e-commerce (Hartman et al., 2001; Dutta et al., 2004; Oxley & Yeung, 2001).

*H5: E-readiness exerts a significant influence on the behavioural intention of travel intermediaries to adopt e-commerce.*

## Behavioural Intention

It is frequently believed that behavioural intention predicts actual behaviour. According to Kwok and Gao (2005), positive intentions towards a behaviour increase the likelihood that someone will engage in it, and vice versa. It is defined as "the person's perceived likelihood that he or she will undertake the in-concern behaviour." According to Venkatesh et al. (2003), behavioural intent is a direct response variable that determines behavioural usage.



**Fig. 1: Conceptual Model**

## Research Methodology

### Instrument, Sampling and Pilot Test

A quantitative approach to investigation was taken to fulfil the objectives of the study. Using a structured questionnaire, the primary data was collected to assess the influence of the extended UTAUT model on e-commerce adoption. The area of study was Kashmir division of Jammu & Kashmir Union Territory, and data was collected from officially registered travel and tour businesses. An online questionnaire was used to acquire the data. The questionnaire was divided into two parts. The first part addressed the respondents' demographic data i.e., age, gender, education and tenure of business (years of experience). The questionnaire's second section contained 23 statements on a 5-point Likert scale, from 1 to 5, where "1" denoted "Strongly disagree" and "5" denoted "Strongly agree." The scale is comprised of six (06) first-order reflective constructs i.e., 'Performance Expectancy', 'Effort Expectancy', 'Social Influence' and 'Facilitating Conditions' derived from (Venkatesh et al., 2003) and 'e-Readiness' taken from (Molla & Licker, 2005) all five acting as exogenous variables and last one i.e., 'Behavioural Intention' from (Venkatesh et al., 2003) as an endogenous variable.

The sample was selected using a purposive sampling technique. In total, 203 responses were recorded and received for analysis in the research study. Respondents in this survey included members of prestigious tourism organisations, i.e., the Adventure Tour Operators Association of Kashmir, the Travel Agents Association of Kashmir and the Travel Agents Society of Kashmir. The instrument underwent an initial pre-test by a group of nine scholarly researchers, four distinguished faculty members and seven seasoned industry specialists to capture the basic essence of the study. Following pre-testing, 25 people who took part in the pilot study were given the questionnaire to assess the reliability of the research instrument. All constructs were determined to be capable of reaching the suggested threshold of 0.70, indicating a suitable degree of reliability (Nunnally, 1978).

## Data Analysis and Results

### Demographic Statistics

A total of (N) = 203 travel agents and tour operators were part of the sample in the research. The respondents consisted of 82.8% males and 17.2 % females (see Table 1). The majority of respondents 38.4%, belonged to the 18–30 age range, with 36.1% to the 31–40 age range, 18.2% in the 41–50 age group and 7.3% aged 50 or above. Of the participants, 52.2% said they had completed their undergraduate degrees, while 28.6% said they had postgraduate degrees. A further 19.2% of individuals claimed to have finished their secondary education, or 10+2. According to the survey results, a sizable portion of participants—48.3% reported having an experience that lasted between 6 and 10 years. A significant portion of respondents—26.6% have experience ranging from 11 to 15 years. In addition, 19.7% of respondents have 1–5 years of professional experience, while 5.4% have more than fifteen years of experience.

**Table 1: Demographic Profile**

Variables	Category	Frequency	%Age
Gender	Male	168	82.8
	Female	35	17.2
Age (Years)	18-30	78	38.4
	31-40	73	36.1
	41-50	37	18.2
	50+	15	7.3
Education	10+2	39	19.2
	UG	106	52.2
	PG	58	28.6
Tenure of Business (in yrs.)	1-5	40	19.7
	6-10	98	48.3
	11-15	54	26.6
	15+	11	5.4
		N = 203	

Data screening is a crucial step in the first stage of data analysis that must be taken before any subsequent

multivariate analysis. The appropriate examination of data was conducted to identify the presence of any missing values, unresponsive entries, or outliers. Consequently, utilising the statistical package SPSS 26, the complete dataset underwent screening via a frequency analysis, revealing no instances of outliers. The study assessed the unidimensionality of its variables through the employment of the confirmatory factor analysis (CFA) method. Subsequently, the suggested hypotheses were evaluated, and the relationship between the constructs was examined utilising a Structured Equation Model. SPSS was utilised in the analysis to verify the internal consistency and unidimensionality of the variables. Additionally, the CFA findings were imputed, and AMOS was used to evaluate the hypotheses.

### Reliability Statistics

The extended UTAUT scale's reliability study produced a score depicted in (see Table 2). As indicated by Cronbach alpha values that were above the permissible criteria value of 0.7, signify that all the factors in this study demonstrated reliability (Nunnally, 1978; Hair et al., 1998).

**Table 2: Reliability Test**

Factor	No. of Items	$\alpha$
Performance Expectancy	05	.976
Effort Expectancy	04	.962
Social Influence	03	.920
Facilitating conditions	04	.969
E-Readiness	04	.975
Behavioural Intention	03	.953
Total	23	.955

### Measurement Model

To confirm the constructs and validate the study's measurement properties, CFA was used. Along with the conventional chi-square values, additional goodness of fit metrics, including the (RFI), (NFI), (GFI), (AGFI) and (RMSEA), were carefully examined to guarantee the precision and reliability of the results. The study was able to achieve robust outcomes with a high level of confidence and rigour by taking a comprehensive approach to evaluate the goodness of fit of the model.

With the dimensions of ( $X^2 = 217.630$ ,  $df = 215$ ; probability level = .000;  $CMIN/DF = 1.012$ ;  $RFI = .961$ ;

$NFI = .967$ ;  $GFI = 0.921$ ;  $AGFI = 0.899$  and  $RMSEA = 0.008$ ), exhibited that data for the model fit and hence a measurement model for extended UTAUT was developed. By the criteria stated by Netemeyer et al. (2003), an assessment of measurement instrument was performed. All of the constructs tested in the model had composite reliability (CR) metrics that were more than the proposed threshold level of 0.60 (Koufteros, 1999). Additionally, every single construct under investigation displayed (AVE) values above the minimal criterion of 0.50 (Fornell & Larcker, 1981). As a result, the metrics produced from CR and AVE testify to the reliability of the measured constructs and their convergent validity as well (see Table 2).

During the calculations to compare the correlations between the constructs and the square roots of AVE, the values of AVE were noticeably bigger than those of the correlations between the constructs. The figures in Table 4 show that this conclusion supports the idea that the investigated constructs have a high level of discriminant validity (Fornell & Larcker, 1981).

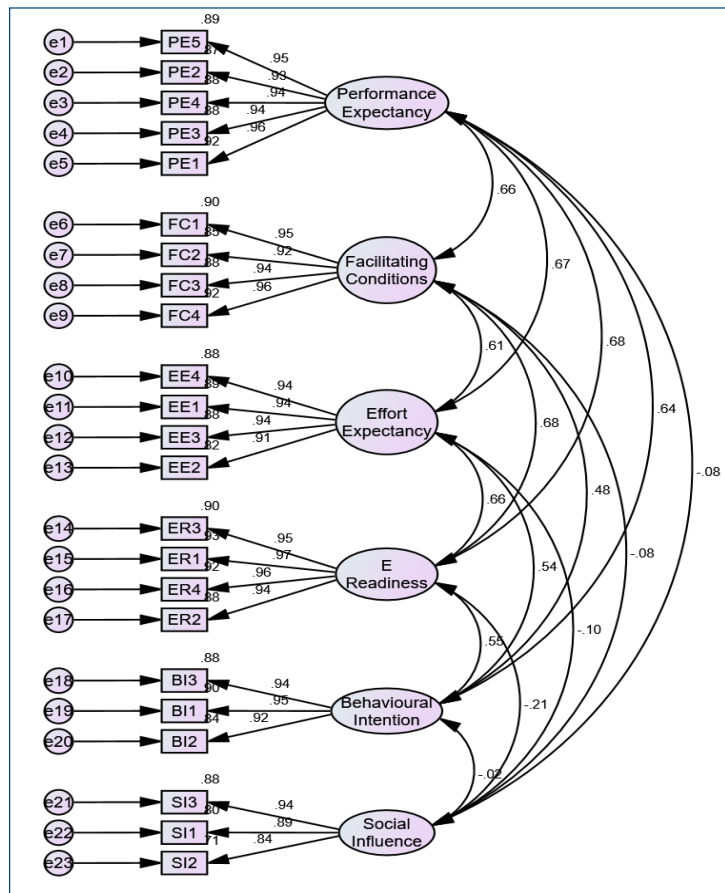
**Table 3: CFA Results**

	Items	Loadings	CR	AVE
Performance Expectancy (PE)	PE5	.945	0.976	0.890
	PE2	.931		
	PE4	.940		
	PE3	.938		
	PE1	.962		
Effort Expectancy (EE)	EE4	.937	0.963	0.867
	EE1	.942		
	EE3	.937		
	EE2	.908		
Social Influence (SI)	SI3	.938	0.921	0.797
	SI1	.892		
	SI2	.845		
Facilitating Conditions (FC)	FC1	.947	0.969	0.886
	FC2	.921		
	FC3	.937		
	FC4	.960		
E-Readiness (ER)	ER3	.950	0.975	0.908
	ER1	.965		
	ER4	.960		
	ER2	.937		
Behavioural Intention (BI)	BI3	.939	0.953	0.872
	BI1	.946		
	BI2	.916		

**Table 4: Discriminant Validity**

	BI	PE	FC	EE	ER	SI
BI	<b>0.934</b>					
PE	0.635	<b>0.943</b>				
FC	0.483	0.663	<b>0.941</b>			
EE	0.543	0.674	0.613	<b>0.931</b>		
ER	0.546	0.685	0.680	0.658	<b>0.953</b>	
SI	-0.021	-0.079	-0.078	-0.096	-0.209	<b>0.892</b>

Note: BI = (Behavioural Intention); PE = (Performance Expectancy); FC = (Facilitating Conditions); EE = (Effort Expectancy); ER = (E-Readiness); SI = (Social Influence).



**Fig. 2: CFA Model**

**Hypotheses Testing**

Following the completion of confirmatory factor analysis, the next stage involved was the hypothesis testing. The hypotheses were tested through the application of structural equation modelling with the use of AMOS 23 software. The outcomes of the research revealed that performance expectancy plays a vital role in influencing behavioural intention ( $\beta = 0.42$ ;  $p < 0.05$ ). Furthermore, effort expectancy impacts behavioural intention as well

( $\beta = 0.39$ ;  $p < 0.05$ ), and social influence ( $= 0.34$ ;  $p < 0.05$ ), was also found to be a significant factor in behavioural intention ( $\beta = 0.34$ ;  $p < 0.05$ ). Additionally, the strongest predictor of behavioural intention was discovered to be facilitating conditions ( $\beta = 0.49$ ;  $p < 0.05$ ) and last but not least, the study discovered that e-readiness was substantially correlated with behavioural intention ( $\beta = 0.29$ ;  $p < 0.05$ ). Results of the hypotheses are listed in Table 5; all were supported, and Fig. 3 displays the structural model and the path coefficients.

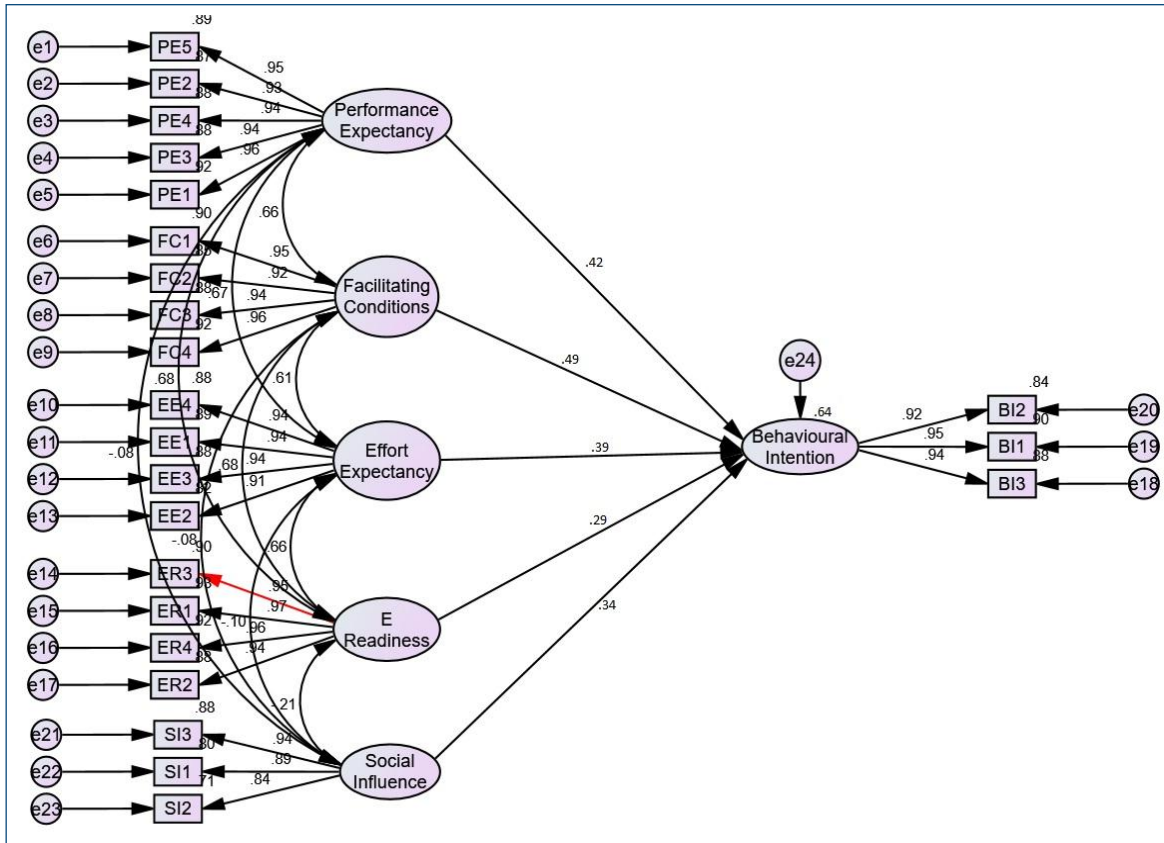


Fig. 3: Structural Model with Path Coefficients

Table 5: Results of Hypotheses

Hypotheses		Estimate	P-Value	Results	
H1	Performance Expectancy	Behavioural Intention	0.42	***	Supported
H2	Effort Expectancy	Behavioural Intention	0.39	***	Supported
H3	Social Influence	Behavioural Intention	0.34	***	Supported
H4	Facilitating Conditions	Behavioural Intention	0.49	***	Supported
H5	E-Readiness	Behavioural Intention	0.29	***	Supported

Note: - \*\*\* Significant at <0.05

## Discussion

Travel intermediaries hold one of the largest proportions of the e-retail market because of the ongoing improvements in travel and tourism-related products. Reputable online travel agencies provide their customers with a wide range of advantages, such as tailored and customised deals that are unavailable through conventional channels. These initiatives have fuelled the industry's expansion in terms of sales, value and competition in particular. E-commerce has experienced growth with the surge of the internet and is expanding at an exceedingly rapid pace due to

its positive impact, which includes round-the-clock availability, reduced transaction costs, price comparison and ease of conducting business. E-commerce adoption in the travel industry is a multifaceted process that is driven by several variables. In addition, it is noteworthy that developing regions have paid less attention to this trend. The study utilised the extended UTAUT model by incorporating UTAUT-1 and e-readiness, employing Structural Equation Modelling to analyse the factors that significantly affect travel intermediaries' decision to embrace e-commerce. The findings of the research indicate that performance expectancy, defined as the perceived advantages of utilising e-commerce platforms,

exerts a noteworthy positive impact on the travel intermediaries' behavioural intention to adopt such platforms. This implies that travel intermediaries are more inclined to accept e-commerce solutions when they view them as advantageous in improving their performance and efficiency. Hence, endorsing the findings of Ayeh et al. (2013), which also concluded with performance expectancy as a crucial element in the adoption of technology that enhances the tendency of travel intermediaries to engage in e-commerce. The outcomes also demonstrate that both effort expectancy (perceived ease of use) and social influence (impact of peers and stakeholders) significantly contribute to behavioural intention. Hence, validating the positive association of these two constructs with behavioural intentions (Wang & Shih, 2009; Venkatesh et al., 2012; Lian & Yen, 2014). This indicates that travel intermediaries are still more inclined to adopt e-commerce platforms when they view them as easy to use and when they receive encouragement or endorsement from their social networks. By getting influenced through their social contacts, including peers, industry experts and customers, travel businesses tend to utilise e-commerce solutions more readily to enhance their operations and cater to customer requirements. The positive relationship of these constructs with the behavioural intention remains consistent with findings from previous research (Mapeshoane & Pather, 2016; Dwivedi et al., 2019). However, Shin (2009) had found no association between social influence and behavioural intention. Facilitating conditions, such as organisational backing and technical resources, were found to be the most significant determinant of behavioural intention was found to be the most significant factor in the context of the current study. This finding is contrasting with the results of a study by Dajani (2016), where facilitating conditions were found to be the least significant factor influencing the behavioural intention. This underscores the crucial importance of supportive organisational settings and sufficient resources in promoting the implementation of e-commerce among travel intermediaries i.e., e-commerce expertise and technological and organisational infrastructure remain pivotal to incorporating tech-based operations in travel businesses. Thus, the resources that are crucial to the adoption of ICT and e-commerce remain an important factor in developing regions. The results of our study highlighted the e-readiness as the least significant element in driving travel intermediaries' intention towards e-commerce adoption. There could be several explanations for that.

The research data may have been acquired from a subset of travel agents who are already deemed relatively proficient in technology and possess a high degree of e-readiness, characterised by the majority of the chosen sample having already extensively adopted e-commerce, thereby diminishing the impact of e-readiness. It is also plausible that other study variables may have overshadowed the influence of e-readiness on the behavioural intent. The measure of e-readiness employed in this study may have certain limitations or may not encompass certain crucial aspects of technological preparedness that are specific to the travel agency industry. Future research endeavours could contemplate alternative measures or refine the existing e-readiness construct.

## Study Implications

The findings of the study provide important perspectives for individuals working in the travel industry, emphasising the main factors that influence travel intermediaries' inclination towards adopting e-commerce. Companies can utilise these insights to create specific strategies to encourage e-commerce adoption, such as implementing training programs to improve digital skills and fostering a supportive organisational environment. Policymakers and industry groups can utilise the findings to draft policies and projects that promote the use of e-commerce by travel intermediaries. This could involve offering financial incentives for technology investments, encouraging cooperation among industry players and establishing platforms for sharing knowledge to facilitate technology adoption. The study enhances the current body of literature by empirically confirming the impact of different factors on travel intermediaries' behavioural intention towards e-commerce adoption. Overall results implicate that travel businesses should prioritise basic infrastructure and resources while intending to seek the advantages of e-commerce technologies. To further augment the viability of e-commerce technologies, it is crucial to guarantee user-friendliness and make use of social impact.

## Limitations and Future Research

The research solely focused on the Kashmir division within the Union Territory of Jammu & Kashmir, which may restrain the potential of the study to generalise

its findings. The cross-sectional design utilised in the study may constrain its capacity to definitively establish causality or deduce temporal connections among variables. Although the study can unveil associations between variables, it is unable to ascertain the causal direction or determine if alterations in one variable occur before those in another. To obtain more robust evidence of causality, longitudinal or experimental designs might be more suitable. Additionally, to gain a better understanding of the adoption of e-commerce, future research initiatives should explore and refine the e-readiness measures that could specifically be designed for the tourism industry. In order to give an improved understanding, future study might examine other aspects that could affect adoption decisions and can use this extended model in other contexts and can incorporate other variables such as self-efficacy, prior experience and perceived cost to draw more conclusions and enlighten the understanding of the phenomenon.

*Conflict of Interest:* On behalf of all authors, the corresponding author states that there is no conflict of interest.

## References

- Abu-Shanab, E., & Pearson, J. M. (2007). Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective. *Journal of Systems and Information Technology*, 9(1), 78-97.
- Agarwal, R., & Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly*, 24(4), 665-694.
- Altalhi, M. M. (2021). Towards understanding the students' acceptance of MOOCs: A unified theory of acceptance and use of technology (UTAUT). *International Journal of Emerging Technologies in Learning (IJET)*, 16(2), 237-253.
- Alzahrani, M. E., & Goodwin, R. D. (2012). Towards a UTAUT-based model for the study of e-government citizen acceptance in Saudi Arabia. *International Journal of Humanities and Social Sciences*, 6(4), 376-382.
- Ayeh, J. K., Au, N., & Law, R. (2013). Towards an understanding of online travellers' acceptance of consumer-generated media for travel planning: Integrating technology acceptance and source credibility factors. In *Information and Communication Technologies in Tourism 2013: Proceedings of the International Conference in Innsbruck, Austria, January 22-25, 2013* (pp. 254-267). Springer Berlin Heidelberg.
- Bandara, R. I., & Silva, D. A. C. (2016). E-tourism and roles of travel agencies: A case study of promoting Japanese inbound tourism in Sri Lanka. *Journal of Marketing*, 1(1), 17-31.
- Brdese, H. (2013). *Exploring factors impacting e-commerce adoption in tourism industry in Saudi Arabia* (Doctoral dissertation, RMIT University).
- Buhalis, D. (1998). Strategic use of information technologies in the tourism industry. *Tourism Management*, 19(5), 409-421.
- Bui, T. X., Sebastian, I. M., Jones, W., & Naklada, S. (2002). *E-commerce readiness in East Asian APEC economies - A precursor to determine HRD requirements and capacity building*. Honolulu: PRIISM. Retrieved June 9, 2024, from <https://www.apec.org/publications/2002/12/ecommerce->
- Cazares-Garrido, I. V. (2016). Complexity in the adoption of technology in tourism services. *Journal of Intercultural Management*, 8(3), 7-24.
- Carlisle, S., Ivanov, S., & Dijkmans, C. (2023). The digital skills divide: Evidence from the European tourism industry. *Journal of Tourism Futures*, 9(2), 240-266.
- Curtis, L., Edwards, C., Fraser, K. L., Gudelsky, S., Holmquist, J., Thornton, K., & Sweetser, K. D. (2010). Adoption of social media for public relations by nonprofit organizations. *Public Relations Review*, 36(1), 90-92.
- Dajani, D. (2016). Using the unified theory of acceptance and use of technology to explain e-commerce acceptance by Jordanian travel agencies. *Journal of Comparative International Management*, 19(1), 99-118.
- Dolnicar, S., & Laesser, C. (2007). Travel agency marketing strategy: Insights from Switzerland. *Journal of Travel Research*, 46(2), 133-146.
- Dutta, S., Lanvin, B., & Pua, F. (Eds.). (2004). *The global information technology report 2003-2004: Towards an equitable information society*. Oxford University Press, USA.
- Dwivedi, Y. K., Rana, N. P., Chen, H., & Williams, M. D. (2011). *A meta-analysis of the unified theory of acceptance and use of technology (UTAUT)*. In Governance and Sustainability in Information Systems. Managing the Transfer and Diffusion of IT: IFIP WG 8.6 International Working Conference, Hamburg, Germany, September 22-24, 2011. Proceedings 155-170. Springer Berlin Heidelberg.

- Eckhardt, A., Laumer, S., & Nguyen, N. T. (2010). Social influence in technology adoption research - A scientometric study over two decades behavior.
- Eweoya, I., Okuboyejo, S. R., & Agomuo, K. (2016). The adoption of e-tourism: An empirical investigation. *Asian Journal of Information Technology*, 15(18), 3422-3429.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Garkavenko, V., Tiberghien, G., Surnina, S., & Gimranova, D. (2010). Information and communication technologies: Kazakhstan travel market perspective. In *Special Section: ENTER 2010 Conference on Information and Communication Technologies in Tourism*. Lugano, Switzerland.
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25, 179-188.
- Gupta, A., & Dogra, N. (2017). Tourist adoption of mapping apps: A UTAUT2 perspective of smart travellers. *Tourism and Hospitality Management*, 23(2), 145-161.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall International.
- Harindranath, G., Dyerson, R., & Barnes, D. (2008). ICT adoption and use in UK SMEs: A failure of initiatives? *Electronic Journal of Information Systems Evaluation*, 11(2), 91-96.
- Hartman, A., Kador, J., & Sifonis, J. G. (2001). *Net ready: Strategies for success in the economy*. McGraw-Hill, Inc.
- Henama, U. S., & Apleni, L. (2020). The effect of e-commerce travel agencies in East London, South Africa. *African Journal of Hospitality, Tourism and Leisure*, 9(1), 1-14.
- Januszewska, M., Jaremen, D., & Nawrocka, E. (2015). The effects of the use of ICT by tourism enterprises. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Service Management*, 16, 65-73.
- Kasem, M., & Hassanein, E. E. (2014). Cloud business intelligence survey. *International Journal of Computer Applications*, 90(1), 23-28.
- Khatri, I. (2019). Information technology in tourism & hospitality industry: A review of ten years' publications. *Journal of Tourism and Hospitality Education*, 9, 74-87.
- Koufteros, X. A. (1999). Testing a model of pull production: A paradigm for manufacturing research using structural equation modeling. *Journal of Operations Management*, 17(4), 467-488.
- Kwok, S. H., & Gao, S. (2005). Attitude towards knowledge sharing behavior. *Journal of Computer Information Systems*, 46(2), 45-51.
- Lian, J. W., & Yen, D. C. (2014). Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in Human Behavior*, 37, 133-143.
- Malhotra, R., & Malhotra, D. K. (2006). The impact of internet and e-commerce on the evolving business models in the financial services industry. *International Journal of Electronic Business*, 4(1), 56-82.
- Mapeshoane, T. J., & Pather, S. (2016). The adoption of e-commerce in the Lesotho tourism industry. *The Electronic Journal of Information Systems in Developing Countries*, 75(1), 1-24.
- Mill, R. C., & Morrison, A. M. (2002). *The tourism system*. Kendall Hunt.
- Mishra, O. N., & Gupta, S. (2020). Antecedents and impact of e-commerce adoption among new venture firms: Evidence from tourism and hospitality industry. *Vision*, 24(4), 431-440.
- Molla, A., & Licker, P. S. (2005). eCommerce adoption in developing countries: A model and instrument. *Information & Management*, 42(6), 877-899.
- Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling procedures: Issues and applications*. Sage Publications.
- Nevmerzhitskaya, J. (2013). *Scenarios of the future work of business travel agencies* (Thesis).
- Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical Diagnosis of Mental Disorders: A Handbook* (pp. 97-146).
- Oxley, J. E., & Yeung, B. (2001). E-commerce readiness: Institutional environment and international competitiveness. *Journal of International Business Studies*, 32, 705-723.
- Parker, S. (2000, April). *A survey of small business in Colorado*. CCCOES.
- Rahman, M. M. (2021). Inbound tourism in Bangladesh: The trend of competitiveness. *Bangladesh Journal of Public Administration*, 29(2), 64-78.
- Salwani, M. I., Norzaidi, M. D., Chong, S. C., & Lin, B. (2009). Factors determining organisational

- commitment on security controls in accounting-based information systems. *International Journal of Services and Standards*, 5(1), 51-66.
- Selim, H. M. (2008, May). E-commerce adoption and acceptance by firms: exploratory study. In *CONF-IRM 2008 Proceedings* (p. 23).
- Shin, D. H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*, 25(6), 1343-1354.
- Soomro, M. A., Hizam-Hanafiah, M., & Abdullah, N. L. (2020). Digital readiness models: A systematic literature review. *Compusoft*, 9(3), 3596-3605.
- Sumner, M., & Klepper, R. (1998). Business strategy and the use of Web sites.
- Thomas, T., Singh, L., & Gaffar, K. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. *International Journal of Education and Development using ICT*, 9(3).
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178.
- Wang, Y. S., & Shih, Y. W. (2009). Why do people use information kiosks? A validation of the unified theory of acceptance and use of technology. *Government Information Quarterly*, 26(1), 158-165.
- Warden, S., & Tunzelana, S. (2004). E-Commerce: A critical review of SMME organisational barriers in tourism. In *Proceedings of 6<sup>th</sup> WWW Applications Conference*.
- Zhang, W., & He, G. P. (2008). An empirical study and analysis of residents' perceptions of tourism impact in China's tourist destinations. *Tourism Tribune*, 23(2), 72-79.