

POST-PANDEMIC INTENTION OF THE TOURISM AND HOSPITALITY (T&H) INDUSTRY EMPLOYEES TOWARDS THE USE OF INFORMATION TECHNOLOGY

Abstract

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Purpose - The extended theory of planned behavior (TPB) (Ajzen, 1991) is used in this research to understand the post-pandemic behavioral intentions of tourism and hospitality employees in relation to their use of information technology.

Design/methodology/approach - Data were collected using an online survey, and 449 responses were considered to meet the selection criteria. Structural equation model (SEM) is used to empirically test the proposed research model.

Findings - The results of SEM show that all the variables of TPB (attitude, subjective norm and perceived behavioral control) along with trust are positively associated with the behavioral intention of employees in T&H industry towards the use of information technology and the model has better predictive power.

Originality/value- This study provided deep insights and outstanding contributions to the theoretical framework and proposed a model for post-pandemic employee behavioral intention regarding the use of IT. This study explores the factors that influence T&H employees' post-pandemic behavioral intentions regarding information technology use. It also explores and integrates the various benefits of information technology to T&H industry employees and provides insight to hotel employees, travel agents, tour operators, and other stakeholders.

Keywords Theory of Planned Behavior, Trust, Information Technology, COVID-19, Tourism and Hospitality Industry

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INTRODUCTION

The coronavirus pandemic, which began in China's Wuhan city proved to be the most impactful event that occurred in the 21st century. It is said to be a multi-effect natural disaster that created demand crisis regarding tourism, socio-political and economic (Zenker & Kock, 2020). The highly transmissible nature of COVID-19 restricted the activities that are based on high-level interaction of humans like tourism which cannot be continued like before (García-Milon et al., 2021). The consequences were 'catastrophic' and Tourism and Hospitality (T&H) sector has perhaps been affected worse than any other industry (Ntounis et al., 2022; Nicola et al., 2020; Dube et al., 2020). According to current estimates, more than 2.1 trillion dollars in worldwide tourism earnings will be lost, putting the risk at 75 million jobs (WTTC, 2022; Zenker & Kock, 2020). This reality has shackled the T&H industry globally and new reformulations and solutions are required to assure its survival (García-Milon et al., 2021). Resultantly, to avoid human interaction, the T&H industry like many others adopted technological changes for the consumer as well as employee safety.

The development of Information Technology (IT) and Web 2.0 effectively revolutionized the T&H industry (Buhalis, 2003; Law et al., 2014) in recent times. But the unfortunate outbreak of COVID-19 forced the industry to be more technology-driven (Jaffer, 2021). Consumer demand, along with the increasing want to improve the efficiency and happiness of customers, has caused T&H managers to become dependent on ICT to assist them to do job tasks (Law et al., 2014). COVID-19 created a global trauma, due to which many global hotel chains and travel companies struggled for survival. The changes needed in a post-pandemic environment to promote and protect health and safety are being driven mostly by technological innovation (Sujood et al., 2022b). Implementing more advanced technologies can boost innovation, promote brand recognition, and reduce safety issues (Lau, 2020).

During the COVID-19 pandemic, T&H like many other industries adopted many advanced technologies such as Artificial Intelligence (AI), Robotics, AI Chatbots, Facial recognition, Augmented Reality, e-ticket generation, Internet of Things, etc. to improve their service quality (Revfine.com, 2021). Cloud-based software is now in more use, allowing management and staff to interact efficiently and coordinate various operations behind the scenes in the T&H industry. Such technologies have helped organizations and their personnel by forming a real-time association among the digital and physical systems (Shou et al., 2020; Narayanamurthy & Tortorella, 2021; Raghavan et al., 2021; Vahdat, 2022). The majority of hotel chains specifically made investments in physical security, such as improved practices of sanitation with hands-free technology and high-tech

surveillance systems to encourage social separation (Jaffer, 2021). Innovative technology has the ability to lift up the service quality of tourist operators (Tavitiyaman et al., 2021) by playing a key role in forming safe spaces, and maintaining a contactless interface for guests to regain trust (Bharwani & Mathews, 2021). Therefore, this technological adoption will likely be in use in the post-pandemic era (Zeng et al., 2020; Raghavan et al., 2021; Narayanamurthy & Tortorella, 2021). Post-pandemic usage of advanced technology services by the T&H industry can be beneficial for customers (Bharwani & Mathews, 2021) and for employees as well (Mejia et al., 2021), as it can upgrade the guest experience by allowing new levels of personalization (Pillai et al., 2021).

Understandably, researchers in the tourism area globally are in the early stage of research gap-spotting regarding COVID-19 (Zenker & Kock, 2020). Its consequence on consumer behavior has been very much researched but its impact on employees' technological behaviors post-pandemic is yet to be explored that needs to be addressed. To our knowledge, no other research has been done in this specific area, and this could be the first study to empirically demonstrate such impacts, with implications for the post-pandemic era. To contribute to this research area the authors of this study aim to explore the posited change by COVID-19 in employees' intention to use IT. In this study, the authors have used the well-established theory by Ajzen (1991) 'Theory of Planned Behavior' (TPB) to examine the intentions of T&H employees towards IT and its usage post-pandemic. However, this study is conducted in the Indian context which is not much technological-centric as compared to developed nations (Misra et al., 2021; Ferris et al., 2022), so it was a major concern to deal with such abnormal conditions i.e., COVID-19. The pandemic brought great technological transformation (Bharwani & Mathews, 2021). In this regard, information technology has proved panacea for every sector across the world.

Review of Literature and Hypotheses Development

The outburst of COVID-19 has significantly reformed the way service organizations operate, altering the routines and activities of employees. This pandemic inevitably pushed new ways of functioning, such as the introduction of emerging technology that would become an important part of the post-COVID-19 phase (Narayanamurthy & Tortorella, 2021). The use of technology is considered significant to defeat COVID-19 effects and reinstating tourism and the economy (Sigala, 2020). The advanced technological implementation in tourism improves tourists' experiences and promotes tourism activities and interfaces among stakeholders such as tourism providers and tourists (Tavitiyaman et al., 2021). The use of technologies like artificial intelligence, autonomous vehicles, robotics, etc. has gained a significant place in hotels, restaurants, hospitals, transportation networks, airports, leisure, recreation and scenic destinations and communities in general in order to maintain a safe distance (Zeng et al., 2020). Some key components of technology-based tourism involve knowledge and training within tourism enterprises to handle smart technology, effective application of software and hardware, network technology and communication network tools (Tavitiyaman et al., 2021; Gretzel et al., 2015). Due to job risk concerns and data security, technological adoption in travel and tourism will continue even when the situation gets less severe (Zeng et al., 2020).

Theory of Planned Behavior

In this research work, TPB has been employed to assess the intention of employees towards technological changes concerning the COVID-19 crisis. There is another prevalent model related to technology acceptance i.e. Technology Acceptance Model (TAM) which measures the behavioral intention related to technology acceptance, but TPB is applied here, as it allows to measure the effect of social variables along with attitude (i.e. Subjective Norm and Perceived Behavioral Control) which can impact the behavior and intention of individuals towards the technology usage. Social variables are not explicitly included in TAM (Mathieson, 1991; Kamal et al., 2020). Although TAM is simpler to use, it only provides very generic information about users' perceptions of a system. TPB offers more specified details to better direct the development in the concerned field (Mathieson, 1991). Multiple studies have been undertaken to determine how individuals intend to utilize and accept technologies employing TPB (Ramadan et al., 2017; White Baker et al., 2007; Taylor & Todd, 1995; Mathieson, 1991). It is the most commonly used theory among social science researchers for predicting behavioral intention (Armitage & Conner, 2001; Fielding et al., 2008; Fife-Schaw et al., 2007) that is structured to explain the behavior of humans and has been validated in effectively predicting and describing human behavior in varied contexts (Mathieson, 1991; Carswell & Venkatesh, 2002; Wang et al., 2021; Sujood et al., 2021; Choe et al., 2021). The TPB has three key components- Attitude (ATT), Subjective Norms (SN) and Perceived Behavioral Control (PBC) (Ajzen, 1991; White Baker et al., 2007). As per TPB, a person's actual behavior in executing a particular act is affected directly by his/her Behavioral Intention (BI) which in response formed by ATT, SN and PBC jointly (Teo, 2011; Chen & Li, 2010; White Baker et al., 2007). The key determinant of actual usage behavior is BI (Teo, 2011), which is explained as one's subjective probability of conducting a specific behavior (Kuo & Yen, 2009; Ajzen, 1985; Ajzen & Fishbein, 1980). BI also predicts individuals' probable future actions (Tavitiyaman et al., 2021). The TPB model applied will investigate the impact of ATT, SN and PBC on the intent to use technology along with trust in the post-pandemic time. COVID-19 crisis has created a loss of trust in using traditional means which gave rise to more usage of technology to rebuild the trust factor in tourism services such as ordering food & beverage using electronic mediums (Hamid et al., 2023), AI and robotics in the tourism industry (Pillai & Sivathanu, 2020), contactless services by employees (Rahimzhan & Irani, 2021),

etc. Trust is found to be a crucial factor in the adoption of new technology (Pillai & Sivathanu, 2020). Therefore researcher has extended the TPB model with Trust as a variable to measure the post-pandemic intention of T&H employees towards technology usage. There are many studies that investigated intention to use technology among consumers but there is a dearth of studies investigating employee intention towards using technology in the T&H sector post-pandemic. COVID-19 has made huge technological advancements and seeks researchers' attention to analyze different segments of research.

Attitude (ATT)

Attitude is the foremost constituent of TPB. Attitude is defined by many researchers concerning employee technology usage behavior (Chau & Hu, 2001; White Baker et al., 2007; Cheng & Cho, 2010; Chen, 2013; Taylor & Todd, 1995). The attitude of an employee towards the technology is defined by his or her subjective assessment of the positive or negative consequences of using the technology (White Baker et al., 2007), which eventually influences the behavioral intention of a person (Chen, 2013; Farah & Newman 2010). T&H Employees' attitude toward a technology, shapes how willing they are to utilize it, which in turn predicts the use itself post-pandemic. The enormous benefits of technology during the COVID-19 created a drastic shift in the behavior of people in the travel sector towards the usage of technology (Revfine.com, 2021). Therefore, an employee is likely to show a favorable attitude towards using a technology post-pandemic if he or she believes the behavior will have more significant and beneficial repercussions. Thus, it is hypothesized that:

H1. Attitude has a significant and positive effect on post-pandemic intention towards the use of IT.

Subjective Norms (SN)

Ajzen (1991) explains Subjective Norms as "the perceived social pressure to perform or not to perform the behavior". To put it another way, people are more likely to do something if they perceive greater social pressure from key referents towards that act (Al-Gahtani et al., 2007; Lam et al., 2007) which has been shown to be a crucial factor of BI to use IT (Chau & Hu, 2001; White Baker et al., 2007). T&H along with other industries is in a recovery phase, but even at this stage, important people to an individual would still suggest being cautious as the virus is not completely eliminated. The use of IT in the service industry is vital to maintain a decent level of social distance between tourists and the working staff in the after times of COVID-19. There are numerous aspects that can influence the actual behavior of T&H employees with technology usage after the pandemic. Peer group influence is one of the most common (Benić, 2021). Other factors include pressure from superiors and other significant people in the organization (Park, 2009; Morrison et al., 2019). Both these groups are likely to have a substantial impact on employees' decision to use technology (Taylor & Todd, 1995; Mathieson, 1991) in the post-pandemic world. Thus, it is hypothesized that:

H2. Subjective Norm has a significant and positive effect on post-pandemic intention towards the use of IT.

Perceived Behavioral Control (PBC)

Theory of Reasoned Action (TRA) extends to TPB by adding PBC (Awa et al., 2015; Lu et al., 2010). PBC is explained as perceived ease or difficulty in conducting a certain behavior by an individual (Lam & Hsu 2006; Martins et al., 2014; Ajzen, 1991). It will create a direct effect on behavior if perceived control imitates actual control (Armitage & Conner, 2001; Lam & Hsu 2006). In the case of IT usage, PBC was proved to play a key role in examining the usage intention toward innovative technology (Venkatesh, 2000). The T&H industry adopted many advanced technologies in times of COVID-19 to mitigate its effects. Proper training of employees supports the adoption and usage of technology. According to Benić (2021), employees who are made aware of the know-how of new technology will likely be more comfortable in its usage which will positively shape their behavioral intention towards technology. Technological competency is a must to decide its usage post-pandemic. This implies that if the employees feel comfortable using technology then they are more likely to show positive behavior towards it post-pandemic. Thus,

H3. PBC has a significant and positive effect on post-pandemic intention towards the use of IT.

Trust (TRU)

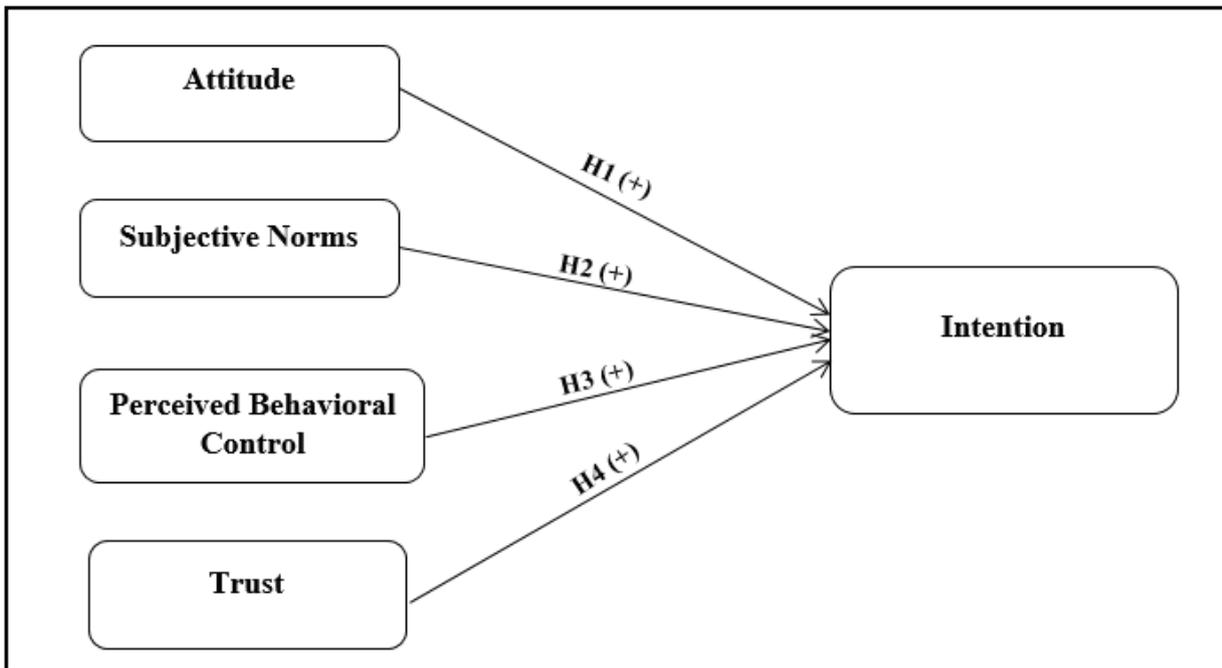
Trust can be described as a sense of safety that creates a desire to rely on something or someone (Chung & Kwon, 2009). Trust is also explained as a behavioral intention or behavior of relying on, which entails vulnerability factors (Chen, 2006; Kim et al., 2011). It is a well-researched variable in varied technological contexts, like e-commerce (Jin et al., 2008; Cyr, 2008), mobile/internet banking (Zhou, 2011; Chaouali et al., 2016), online hotel bookings (Sparks & Browning, 2011; Kim et al., 2017), etc.

Consumer trust in technology usage in the T&H industry is a widely researched phenomenon but it is hardly researched in an organizational context in the post-pandemic phase. The level of trust for a certain activity determines that person's behavior towards it. Trust is said to be a vital factor influencing the adoption of technology (Sharma et al., 2016) and significantly affects behavior towards a technology (Zarpou et al., 2012). Building on previous studies, if an employee has a feeling of trust towards technology, then he/she is more likely to use it post-pandemic. Thus, it is hypothesized that:

H4. Trust has a significant and positive effect on post-pandemic intention towards the use of IT.

Table 1 represents the research related to TPB, COVID-19, IT usage, Trust and Intention.

Figure 1. Conceptual Framework



Source: Researcher's contribution

Table 1: Research related to TPB, COVID-19, IT usage, Trust and Intention

Author(s) (Year)	Objective	Nation	Type of Data	Size of Sample	Analysis/ Technique	Variables	Concept/ Theory	Findings
Smith, Johnson et al. (2022)	This article aims to examine some of the critical issues affecting workforce preparation for the hotel industry and cruise following the COVID-19 epidemic. A competency-based training approach is also included in this study.	Jamaica	Review Paper	--	--	--	Unspecified	Findings show that, in times of crisis, most training methods, and pedagogies are subject to change to effectively respond to the situation and plan revival strategies and research. Some abilities that the post-pandemic workforce would need as discovered in the paper are technological competency, resilience competencies and health management.
Ukpabi et al. (2021)	To create and evaluate a model which explores the factors that impact intention of tourists' to accept the COVID-19 CTA.	Unspecified	Survey	N=400	PLS-SEM	Structural Assurance, Destination Safety, Self-efficacy, Trust, Intention	Unspecified	Findings revealed that previous safety records of the destination will perform a significant role in creating trust for COVID-19 CTA. There is a strong association between trust and structural assurance. Trust also has a favorable relationship with intention. But self-efficacy modifies the association of trust with intention.
Choe et al. (2021)	To investigate (1) the causal connection relating PEOU and PU (2) the impact of the PEOU and PU on attitude, (3) the effect of TPB variables on BI, and (4) the moderation effect of innovativeness of the product in this process.	Unspecified	Survey	N=300	SEM	ATT, SN, PBC, PEOU, PU, BI	TAM, TPB	Findings revealed that attitude is positively affected by PEOU and PU. Further, the results exhibit that ATT, SN and PBC positively affect BI. Lastly, the study indicated that PBC has a substantial moderating result on the behavioral intention of an individual.
Lau (2020)	To explore what first-hand technologies are being used to lessen the effect of COVID-19, through DeLone and McLean's ISS Model.	China	Personal Interview	N=8	Conceptual	Information quality, service quality, system quality, system usage intention	DeLone & McLeans' ISS Model	The Fittest hotels would survive, by accepting and implementing new technologies and new business models during COVID-19 which will likely continue. Secondly, findings projected that the hotel industry is going to revive to the past level of 2019 most probably by 2023.

Author(s) (Year)	Objective	Nation	Type of Data	Size of Sample	Analysis/ Technique	Variables	Concept/ Theory	Findings
Seyitoğlu & Ivanov (2020)	The study aims at the role exploration of service robots in the T&H business in preserving the social distance between tourists and hotel personnel in the post-pandemic world.	Unspecified	Conceptual	--	Conceptual	Service robots, social robots, social Connectedness, physical distancing, physically and socially distant service	Unspecified	The findings discovered that robotic technology is of vital importance as it can efficiently create a physical gap between hosts and guests, but it can also impair psychological social separation to an extent due to the replacement of the most vital factor of the T&H industry which is human.
Rahimizhian & Irani (2021)	To investigate how consumer innovativeness mediates between tourism inclinations and intention to revisit. Further, it examines the implication of innovative technologies in creating physical separation and optimizing operations and services in T & H.	Unspecified	Survey	N=272	ADANCO software	Tourism inclination, Innovativeness, Revisit intention.	Unspecified	The study's findings revealed that tourism inclination impacts the revisit intention both directly and indirectly through innovativeness. If newly invented technologies prepare tourists to visit a tourist site in a way that offers a safe traveling experience, then their intention to visit that place again may be inclined.
Wang et al. (2021)	To identify (a) residents' choices for hotel prices after the pandemic by applying the normative theory and (b) elements related to hotel consumption intention of tourists' using TPB	China	Survey	N=530	TPB	ATT, SN, PBC, BI	TPB	Findings of this study exhibited that ATT and SN significantly affect the intention regarding highly-priced hotels post-COVID-19. It is also indicated that individual intentions towards highly-priced hotels are greatly affected by their attitudes regarding the services and values of hotels in the post-pandemic phase, as well as by the social network of consumers.
Sharma et al. (2016)	To generate a hybrid model that can predict motivators that influence IT professionals' adoption of cloud computing services.	Oman	Survey	N=101	Neural Network (NN)	Job Opportunity, Self-Efficacy, PEOU, PU, Trust	TAM	This research authenticates the necessity to broaden the TAM theory when researching newly innovated technologies like cloud computing. Moreover, the findings showed that cloud computing adoption is greatly influenced by job opportunity, trust and self-efficacy.

Author(s) (Year)	Objective	Nation	Type of Data	Size of Sample	Analysis/ Technique	Variables	Concept/ Theory	Findings
Cheng & Cho (2010)	To explore employees' behavioral intention regarding ICT usage in travel agencies of Hong Kong using a complete model that integrates TAM, IDT, and TPB variables.	Hong Kong	Survey	N=190	SEM	TPB, PEOU, PU, Compatibility, Trialability, Observability, BI, Usage	TAM, TPB, IDT, ICT	The findings showed that the adopted ICT model is appropriate to forecast the adoption behavior of employees. Furthermore, observability, PEOU, PU and trialability regarding new ICT are the vital constructs that stimulate the attitude of personnel toward it.
Al-Gahtani et al. (2007)	To evaluate a modified model of UTAUT in Saudi Arabia, and the second aim is to explain disparities between validations regarding cultural differences that influence IT acceptance within enterprises.	Saudi Arabia	Survey	N= 722	PLS-SEM	Performance expectancy, Facilitating conditions, Effort expectancy, SN, BI, Use Behavior	UTAUT	Findings revealed that Effort expectancy, Subjective norm and Performance expectancy positively affect BI to use computer technology.
White Baker et al. (2007)	To use the TPB theory to examine the impact of education, gender and age on newly deployed technologies in Saudi Arabia.	Saudi Arabia	Survey	N=1088	PLS-SEM	ATT, SN, PBC, Technology Usage, Intention to use technology	TPB	The research revealed that ATT, SN, and PBC are all major, positive drivers of the technology usage intention. Among moderating variables age and gender insignificantly modifies ATT, SN, and PBC
Ham et al. (2005)	To examine how IT affects the performance of upscale hotels in 4 different areas of hotel service which have used IT to attain their objectives in the lodging service areas.	Korea	Survey	648	Multiple Regression	Front-office applications, Restaurant and Banquet management systems, Back-office applications, Guest-related interface applications	Unspecified	Findings imply that using computed technology to improve hotel performance is a great technique in most hotel divisions. This study also indicated that front-office apps, restaurant, guest-related interface applications and banquet management systems, all had a favorable effect on the operational performance of lodging.

Source: Compiled by authors

ATT=Attitude, SN=Subjective Norm, PBC=Perceived Behavioral Control, BI=Behavioral Intention, TAM=Theory of Acceptance Model, TPB=Theory of Planned Behavior, IT=Information Technology, IDT=Innovation Diffusion Theory, ICT=Information and Communication Technology, CTA=Contact Tracing app, UTAUT=Unified Theory of Acceptance and Use of Technology, PEOU=Perceived Ease of Use, PU=Perceived Usefulness, BI=Behavioral Intention, ISS= Information System Success

Research Methodology

Data collection

The data has been collected by the e-questionnaire and 449 responses were considered for the study. The population for this study is the employees working in tourism and hospitality areas like travel agencies, airlines, hotels, resorts and restaurants in India. The method of sampling is convenience. The questionnaire link was shared on the social networking pages that employees of the T&H sector frequently visit and popular web pages of the T&H sector. The period of the survey was from 20th April to 30th May, 2022.

Questionnaire development

All the items of the questionnaire were drawn from former studies and adapted to fit the post-pandemic context. In the current study, a 7-point Likert scale was used where “1= strongly disagree and 7 = strongly agree”. The items for measuring ATT, SN and PBC were adapted from Ajzen (1991) and Taylor & Todd (1995), trust was measured from the items from Gefen (2002) and Kim et al. (2011) and intention was measured using the items adapted from Kim et al. (2012) and Kucukusta et al. (2015). Appendix A displays the questionnaire.

Data analysis

The measurement model was first estimated using confirmatory factor analysis. After checking the adequacy, the measurement model was evaluated, Structural Equation Modelling (SEM) was used to test the hypotheses and validate the proposed conceptual model (Anderson & Gerbing, 1988). SPSS and AMOS were used to analyze the data. To ensure that the questions were clear and easy to understand, 40 responses was considered for the pilot study.

Findings

Respondents' Profile

449 responses are considered for the data analysis. The population contains 61.7% male and 38.3% female participants. In respect of age, 41.4% of the respondents were 31-40 years and 24.1% were 41-50 years old. Moreover, a major part of the participants has a bachelor's degree (36.5%) followed by diploma (21.2%) and master degree (16.2%). From the perspective of marital status, the majority of the participants are married, 63.7%, while 34.5% are unmarried. The majority of the respondents (63.3%) belong to the core tourism industry while the rest of them (36.7%) belong to the hospitality industry (Table 2).

Table 2: Demographic Characteristics of the Respondents (n=449)

Items	Classification	Frequency	%
Gender	Male	277	61.7 %
	Female	172	38.3 %
Age	Below 21 years	44	09.8 %
	21-30 years	84	18.7 %
	31-40 years	186	41.4 %
	41-50 years	108	24.1 %
	Above 50 years	27	06.0 %
Education	High School	34	07.6 %
	Intermediate	65	14.5 %
	Bachelor Degree	164	36.5 %
	Master Degree	73	16.2 %
	Diploma	95	21.2 %
	Others	18	04.0 %

Marital Status	Married	286	63.7 %
	Unmarried	155	34.5 %
	Others	08	01.8 %
Income	10,000-30,000	104	23.2 %
	30,001-50,000	169	37.6 %
	50,001-70,000	86	19.2 %
	70,001-90,000	54	12.0 %
	90,001 or more	36	08.0 %
Industry	Tourism	284	63.3 %
	Hospitality	165	36.7 %

Source: Authors

Descriptive Statistics

The mean score values of all the considered constructs are exhibited in table 3. The range of standard deviation lies between 0.9776 to 1.12170. Among all constructs, Subjective Norms (SN) has the greatest mean score (5.7300) and Trust (TRU) has the lowest score (5.2334). Furthermore, Perceived Behavioral Control (PBC) displayed the largest standard deviation (1.12170), while Intention (INT) displayed the lowest (0.9776). (Refer to the Table 3)

Measurement model

Before conducting the final analysis and assessing the proposed model, it is necessary to examine the internal consistency reliability, discriminant validity and convergent validity (Hair et al., 2010). CFA was used to confirm the reliability, discriminant validity and convergent validity of the scale. Cronbach's alpha values greater than 0.70 indicate that measurements are more reliable in terms of internal consistency (Cronbach, 1951). The value of every construct of Cronbach's alpha is higher than the suggested value (Table 3). Furthermore, SEM was employed to test the proposed hypotheses for reporting the causal relationship among constructs (Ullman & Bentler, 2012). The KMO value was .899, and Bartlett's test was 5643.908 with a degree of freedom of 136. Construct validity refers to the extent to which a measuring scale can accurately reflect the constructs being studied. Convergent and discriminant validity are both checked to validate the construct validity.

Table 3: Descriptive Statistics and EFA Results

Variables	Items code	Factor loadings	Eigen Value	M	S.D.	Skew	Kurt	Cronbach's alpha
Intention (INT)			7.504	5.6194	0.9776	-1.137	2.239	0.930
	INT1	0.854						
	INT2	0.897						
	INT3	0.866						
	INT4	0.806						
Trust (TRU)			2.238	5.2334	0.99729	-0.750	0.399	0.917
	TRU1	0.822						
	TRU2	0.847						
	TRU3	0.805						
	TRU4	0.795						
Attitude (ATT)			1.797	5.3719	1.01458	-0.816	0.778	0.893
	ATT1	0.874						
	ATT2	0.808						
	ATT3	0.853						
Subjective Norm (SN)			1.268	5.7300	1.02699	-0.843	0.627	0.875
	SN1	0.867						
	SN2	0.875						
	SN3	0.779						

Variables	Items code	Factor loadings	Eigen Value	M	S.D.	Skew	Kurt	Cronbach's alpha
Perceived Behavioral Control (PBC)			1.006	5.4789	1.12170	-0.858	0.755	0.860
	PBC1	0.798						
	PBC2	0.816						
	PBC3	0.819						

Total explained variance = 81.254% (Source: Authors)

Convergent validity reflects the correlation among items which make to define the whole variable. Convergent validity was determined by average variance extracted (AVE). As per the recommendation, the value of AVE should be higher than .50 (Fornell & Larcker, 1981), hence, all the values lie under the threshold limit (Table 4). Therefore, all the variables considered in this study have strong convergent validity.

Table 4: CFA Results

Variables	Items	Factor loadings	CR	AVE
Attitude	ATT1	.87	0.894	0.737
	ATT2	.84		
	ATT3	.87		
Subjective Norms	SN1	.81	0.878	0.707
	SN2	.89		
	SN3	.82		
Perceived Behavioral Control	PBC1	.73	0.683	0.683
	PBC2	.88		
	PBC3	.86		
Trust	TRU1	.81	0.917	0.733
	TRU2	.84		
	TRU3	.88		
	TRU4	.89		
Intention	INT1	.89	0.931	0.772
	INT2	.90		
	INT3	.88		
	INT4	.84		

Source: Authors

Fornell & Larcker (1981) recommended the guideline to check the discriminant validity of the scale. Discriminant validity reflects the extent where factors distinguish among latent variables. The findings of the current study exhibit that all the values of AVEs are higher than the correlation's square among the constructs. Hence, the discriminant validity is confirmed (Table 5).

Table 5. Discriminant Validity Test

	INT	TRU	ATT	SN	PBC
Intention	.878				
Trust	.512***	.856			
Attitude	.436***	.473***	.859		
Subjective Norms	.424***	.373***	.560***	.841	
Perceived Behavioral Control	.460***	.678***	.360***	.348***	.826

Notes: *** p< 0.001 (Source: Authors)

Structural Model

SEM was applied using Amos. The findings of the study displayed the model is good fit ($\chi^2/df = 2.058$, TLI = .974, RFI = .951, NFI = .961, CFI = .979, RMSEA = .049) (Henseler et al., 2015). Hypotheses testing results are shown in the Table 6. Figure 2 reflects the SEM results where Attitude (H1) ($\beta = .148$, t-value = 2.943) and Subjective norms (H2) ($\beta = .195$, t-value = 4.085) have positively impact on the behavioral intention, respectively to use of IT in T&H industry post-pandemic. Furthermore, PBC (H3) ($\beta = .169$, t-value = 3.07) and Trust (H4) ($\beta = 0.268$, t-value = 4.606) also have a positive and significant influence on the behavioral intention of using IT. Consequently, all hypotheses are supported (Refer to Table 6).

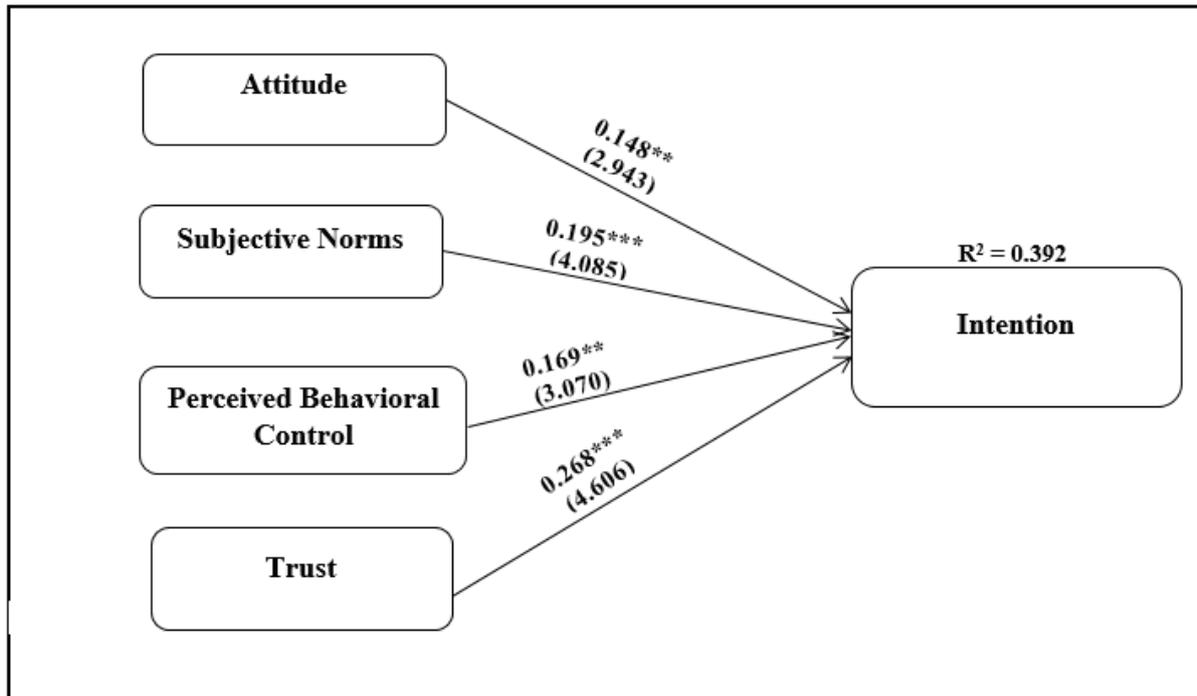
Table 6. Hypotheses Testing Results

	β	t	p-value	Findings
H1: ATT → INT	.148	2.943	< 0.01	Supported
H2: SN → INT	.195	4.085	< 0.001	Supported
H3: PBC → INT	.169	3.07	< 0.01	Supported
H4: TRU → INT	.268	4.606	< 0.001	Supported

Source: Authors

The findings show that post-pandemic employees' BI is significantly influenced by ATT, SN, PBC and TRU towards the use of IT in the T&H industry after the pandemic.

Figure 2: Tested structural model and hypotheses results



p<0.010, *p<0.001

Discussion and Conclusion

The COVID-19 pandemic made people more technology-centric. Most sectors or industries adopted technological assistance during the remarkable surge of this outbreak (Saher & Anjum, 2021). Acknowledging the significance of IT, the present study tries to examine the post-pandemic behavioral intention of employees toward the usage of IT in the T&H sector by implementing the extended TPB model. The T&H industry is a very sensitive industry that stood badly influenced by the COVID-19 pandemic (Ntounis et al., 2022). In this regard, IT is considered an effective instrument to facilitate T&H activities such as internet-based travel intermediaries, virtual tourism, facial recognition, mobile/WAP-based reservation system, robots, contactless facilities, digital IDs, etc. (Gössling, 2021). Moreover, information and communication technology also provides a chance to virtually explore the tourist destination and help to revive the industry after the gruesome consequences of the COVID-19 pandemic (Ide, 2021).

However, multiple previous studies (Javid et al., 2022; Sujood et al., 2022a; Pahrudin et al., 2021) have used the TPB model but still limited studies measured post-pandemic behavioral intention of employees towards using IT in the T&H sector and up to the researcher's approach, no study was found in the Indian context that examined the impact of trust on post-pandemic behavioral intention. The findings of the present study exhibit that, SN, ATT, PBC and trust have a positive significant influence on the post-pandemic intention of employees toward using IT in the T&H industry. Employees' attitude has a positive significant impact ($\beta = .148$) on the post-pandemic intention of employees using IT. However, the findings are consistent with prior studies (Cox, 1997; John, 2015; Măță et al., 2020) but this pandemic has altered the results to a few extents. Hence, attitude emerged as the least strong predictor in representing BI. Employees were much more sensitive regarding their health safety during the pandemic, IT made them relax and provide protocol. Subjective norms also have a positive and significant impact ($\beta = .195$) on the post-pandemic behavioral intention of employees towards using IT. The outcomes are in line with existing studies (Titah

& Bakri, 2009; Ursavaş et al., 2019; Zhuang et al., 2021). SNs are recognized as the second most reliable indicator of BI. The havoc and horrible consequences caused by COVID-19 coerced employees to stay in their homes and compel them to work from their homes. In this regard, IT has proven an effective instrument for employees to execute their work. Furthermore, the finding exhibits that PBC has a positive influence ($\beta = 0.169$) on employees' post-pandemic intention of using IT. These findings are compatible with the previous studies (Zacharis & Nikolopoulou, 2022; Al Rousan, 2022; Liu et al., 2021; Ursavaş et al., 2019; Li et al., 2020; John, 2015). Trust influences positively and significantly ($\beta = .268$) the employees' post-pandemic intention of using IT and this outcome is consistent with prior research (Zheng et al., 2022; Kim and Liu, 2022; He et al., 2021). In this study, trust was seen as a vital and strongest predictor to influence the employees' post-pandemic intention this finding is unique and interesting as the T&H sector is based on the service industry is entirely depends on trust. Trust was found the key element to carry out all the activities related to the T&H during the COVID-19 pandemic. Employees and consumers, all were cautious about their health concerns, and people were avoiding commingling, in this situation, trust facilitated employees to use IT. During the pandemic, all dealings between employees and consumers were going in online/virtual form where trust was the crucial factor to make deals prosperous. Trust is considered the main factor which makes any deal successful between two parties. In developing countries such as India ATT, SN, PBC and TRU directly influence employees' behavioral intention towards a phenomenon. Hence, the three constructs of the TPB (ATT, SN, PBC) and trust resulted as the strong predictor of employees' intention towards using IT after the foregoing period of the pandemic.

Implications

Theoretical implications

This study provides deep insight and outstanding contributions to the theoretical framework and proposed a model regarding the post-pandemic employees' BI towards using IT. This study, the researchers have tried to empirically test the TPB model with trust as an additional construct. This research provides an extensive theoretical groundwork to assess the behavioral intention of individuals post the pandemic. The outcomes of this study extend and contribute to the present literature in multiple ways. First, the results expand the spectrum of published literature related to the post-pandemic BI of using IT in the T&H industry by including the trust with theory of planned behavior. The findings highlight the importance and relevance of IT to deal with emergency situations like COVID-19. Hence, this study fulfills the existing research gap by giving comprehensive and robust theoretical evidence for upcoming researchers and scholars. Second, the expanded model offers a comprehensive overview of the key behavioral intention' determinants, which will facilitate forthcoming researchers and academicians in better comprehending trust. Third, the findings support the necessity to incorporate trust into the TPB model in order to truly comprehend the key determinants of the behavioral intention of employees. Furthermore, this study reveals a more realistic portrayal of employees' post-pandemic intention of using IT in T&H organizations. An astounding transformation was seen in employees' intention toward using IT before and after the COVID-19 pandemic. They were not so concerned about their family safety earlier as they are now after the pandemic, which demonstrates their cautiousness. Consequently, IT provides a chance for employees to work in their usual environment which prevents them from getting hit by any infectious disease.

Practical implications

The application of the TPB model is the best approach for examining the behavioral intention of individuals towards a phenomenon. The present study's findings would enable managers and respective T&H organizations to formulate policies and make decisions while keeping in mind the health and safety concerns of employees. Trust was seen as the most influential predictor that significantly influences the post-pandemic behavioral intention of employees using IT. IT enables employees to execute remotely, in this regard, trust plays a vital role because it bridges the gap between marketers and consumers. By adopting and ensuring health and hygienic standards, T&H organizations should formulate policies aiming to earn employees' trust in using IT. When formulating the policies and procedures, employees' preferences, recommendations and suggestions should be considered. Moreover, due to the temporary shutdown of all organizations associated with the T&H industry during the pandemic, employees switched to fully digital platforms which made them technology-centric. Post-pandemic, there has been a noticeable transformation in employees' behavioral intention regarding the use of IT. They prioritized doing work from less sensitive places (homes and separate offices) to ensure social distancing norms and other restrictions of the outbreak. Because of the pandemic in recent years (2020 and 2021), the influence of IT on travel has grown, even more, resulting in the development of the online travel market and the rising digitization of the tourism industry. It could be suggested that all the T&H organizations must provide training to employees to enhance their emerging ICT and computer skills to deal with such unprecedented conditions as COVID-19.

Limitations and direction for future research

This study has few limitations and carried out insight for future research. This study has been conducted particularly in India.

India is a developing country which has not strong IT interface as highly developed countries have. Internet connectivity and technological challenges have been major issues in India for a long time. Hence, the outcomes of this study could not be generalized to other nations, it may differ. A comparative study could be carried out in the future between underdeveloped, developing, and developed countries. Moreover, this study is carried out with investigating the post-pandemic behavioral intention of T&H employees regarding the use of IT, further studies could be done from other perspectives. The present study is limited to the TPB model with trust as an additional variable. Future research might include other variables by integrating models like TAM and TRA. In this study only the T&H industry has been considered, other service sectors could be considered for further research. Due to the time constraint and limited resources, this study has been done with 449 respondents which is limited, a large sample size might be considered for future studies. Appropriate outcomes may be yielded with a larger sample size. Furthermore, only employees working in the T&H industry have been chosen for the data collection, other populations may lead to varied findings.

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APPENDIX

Gender	Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
Age	<21	<input type="checkbox"/>	21–30	<input type="checkbox"/>
	41–50	<input type="checkbox"/>	>50	<input type="checkbox"/>
Education	High school	<input type="checkbox"/>	Intermediate	<input type="checkbox"/>
	Master Degree	<input type="checkbox"/>	Diploma	<input type="checkbox"/>
		<input type="checkbox"/>	Others	<input type="checkbox"/>
Marital Status	Married	<input type="checkbox"/>	Unmarried	<input type="checkbox"/>
		<input type="checkbox"/>	Others	<input type="checkbox"/>
Income	10,001-30,000	<input type="checkbox"/>	30,001-50,000	<input type="checkbox"/>
	70,001-90,000	<input type="checkbox"/>	90,001 or more	<input type="checkbox"/>
Industry	Tourism	<input type="checkbox"/>	Hospitality	<input type="checkbox"/>
Nationality	Indian	<input type="checkbox"/>	Others	<input type="checkbox"/>

Attitude (Taylor and Todd, 1995)

- ATT1 Using IT in T&H Industry post-COVID-19 is a good idea.
 ATT2 Using IT in T&H Industry post-COVID-19 is a wise idea.
 ATT3 I like the idea of using IT in T&H Industry post-COVID-19.
 ATT4 Using IT in T&H Industry post-COVID-19 would be a pleasant experience.

Subjective Norm (Taylor and Todd, 1995; Ajzen, 1991; Mathieson, 1991)

- SN1 People who influence my behavior would think that I should use IT in T&H Industry post-COVID-19.
 SN2 People who are important to me think that I should use IT in T&H Industry post-COVID-19.

SN3 People whom I know would expect me to use IT in T&H Industry post-COVID-19.

SN4 People whose opinions are valued to me would prefer that I should use IT in T&H Industry post-COVID-19.

Perceived Behavioral Control (Taylor and Todd, 1995)

PBC1 I would be able to use IT in Tourism and Hospitality Industry post-COVID-19.

PBC2 Using IT in T&H Industry post-COVID-19 is entirely within my control.

PBC3 I have the resources to use IT in T&H Industry post-COVID-19.

PBC4 I have the ability to use IT in T&H Industry post-COVID-19.

PBC5 I have the knowledge to use IT in T&H Industry post-COVID-19.

Trust (Gefen, 2002; Kim et al., 2011)

TRU1: I trust the use of IT in T&H Industry post-COVID-19.

TRU2: I am quite certain of what to expect from the use of IT in T&H Industry post-COVID-19.

TRU3: Use of IT in T&H Industry post-COVID-19 is reliable.

TRU4: Use of IT in T&H Industry post-COVID-19 is trustworthy.

Intention (Kim et al., 2012; Kucukusta et al., 2015)

INT1: The probability that I would use IT in T&H Industry post-COVID-19 is high.

INT2: My willingness to use IT in T&H Industry post-COVID-19 is high.

INT3: I will use IT in T&H Industry post-COVID-19 on a regular basis in the future

INT4: I will frequently use IT in T&H Industry post-COVID-19 in the future

INT5: I will strongly recommend other industries employees to use IT in T&H Industry post-COVID-19.

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