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The Influence of Technology Acceptance and Cybercrime Concerns on Customer E-Satisfaction of Mobile Booking Apps: A Moderator Role of E-Trust

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ABSTRACT

Modern technology, such as booking hotel apps, allows travelers to easily find and book hotel stays. Although booking hotel apps today contribute to a small percentage of overall hotel bookings, their acceptability and popularity are steadily growing as more customers switch from PCs to mobile devices for travel reservations. Mobile applications and websites are no longer considered innovative or distinctive. However, recent growth in investments has shifted the focus away from simple mobile self-service functionalities toward more complex online booking systems. The aim of the research is to investigate the impact of implementing a hotel booking app in the Egyptian hospitality industry on consumer e-satisfaction levels, as well as its impact on customers' behavioral intentions to visit hotels that use this technology. This quantitative investigation employed questionnaires on a 5-point Likert scale to gather data from 204 hotel guests who booked using a mobile app (MBA). The obtained data is analyzed using structural equation modeling with AMOS. The study's results indicated that perceived usefulness (PU), perceived ease of use (PEOU), and the behavioral intention (BI) all had a significant and positive effect on consumer e-satisfaction. However, the perceived risk of cybercrime (PRC) shows an important association with e-satisfaction but not with behavioral intention (BI). The findings also show that e-trust (ET) has a strong moderating effect on behavioral intention (BI) and e-satisfaction (E-SAT). The findings of this research demonstrate that the connectivity of the mobile booking app significantly predicts consumer behavioral intention and e-satisfaction.

1. Introduction

The modern era has seen tremendous and quick advancements in the field of information and communication technology, stressing the critical role of information technology as a valuable tool for any business or organization. Consequently, many hospitality companies have made technological advancements their top priority. This is to ensure their survival and continued operations, as well as to fulfill the prerequisite requirements for success and outstanding performance. Given the growth of rivals, the hotel industry began to adopt strategies to differentiate its goods and services from competitors in order to retain current consumers and attract new ones. Smart digital technologies are widely recognized as critical strategic assets that give a competitive edge in the hotel and tourism industry (Chen, and Eyoun, 2021).

Although the technology revolution has resulted in significant changes in service delivery over the past two decades (Parasuraman and Colby, 2015), technical innovation may not be useful unless consumers see it as an enhancement rather than a novelty (Dixon *et al*., 2009). Following the COVID-19 pandemic, smart technologies have become critical for avoiding illnesses and improving infection management practices, assuring the safety of both customers and employees. With ongoing efforts to improve infection control procedures, mobile hotel applications have gained importance as a

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strategic marketing tool for hospitality organizations (Chen, and Eyoun, 2021).

Undoubtedly, mobile hotel applications have considerably decreased the likelihood of human mistakes in conveying customers' reservations to the personnel (staff). Furthermore, mobile hotel applications have the advantage of offering explanations for new offers, services, and product items, which are especially significant to international travelers (Ahamed *et al.*, 2020; Akhlaq & Ahmed, 2016). This helps to resolve any annoying communication barriers that may arise between customers and staff members. Additionally, they allow for greater product showing flexibility, improve presentation liveliness, give more up-to-date information, and integrate automatic translations (Zulkifli *et al*., 2016).

Adoption and utilization of booking technology may result in immediate and long-term benefits for both consumers and enterprises. These advantages include higher performance, more financial efficiency, time savings, and increased convenience for both customers and employees (Davis,1989).

In recent years, researchers have included numerous methodologies into their models to explore the critical features and relationships that influence the efficacy or ineffectiveness of mobile hotel applications (Kumar *et al*., 2018).

The Technology Acceptance Model depicts the actions of technology users by taking into account two key factors (Two important aspects are included by the Technology Acceptance Model (TAM) when illustrating the behavior of technology users): perceived usefulness, which refers to the extent to which users benefit from achieving their goals, and perceived ease of use, which refers to the ease with which consumers can use the technology (Hsiao *et al*., 2016). TAM and its adaptations have had a considerable impact on a wide range of applications across industries, applications, and nations, particularly in anticipating user behavior. Technology acceptance models have been used in a variety of disciplines, including information systems management and marketing (Lee *et al.*,2016)

The TAM model has been useful in studying customer behavior during online purchases (Zaineldeen *et al.*, 2020). TAM, for example, has been used by studies to measure consumer perceptions of online purchasing capabilities, therefore increasing their intentions to make purchases via e-commerce platforms. The study discovered that by emphasizing the significance of customer trust, TAM may help explain variations in attitudes regarding information system technologies and subsequent consumer behavior (Araújo and Casais, 2020).

The development of the booking mobile app has shown that trust is more crucial than ever, and hotels that foster customer confidence in the use of their digital services are more likely to succeed in today's highly competitive market. (Khaksar & Giahi, 2009). The identification of trust's components can be challenging due to its complexity and multidimensional nature. However, consistent evidence suggests that a lack of confidence is one of the most significant barriers to using e-booking services, prompting service providers to foster and maintain a trusting environment in order to attract and retain online customers as well as develop a competitive advantage in the hospitality industry (Kamari & Kamari., 2012).

Present application technology has various challenges from users, including concerns about the usability of the application, particularly among the elderly, and concerns about the protection of their personal data when using these modern applications (Hossain *et al*., 2019).

This study investigates the effect of deploying the Booking Hotel App in Egypt's hospitality business on customer e-satisfaction, as well as its influence on customers' behavioral intention to visit hotels that employ this technology.

The study aims to bridge a knowledge gap by exploring the direct link between the levels of the Technology Acceptance Model (TAM) and the extent to which hospitality sector clients adopt the Booking Hotel App. The study's goal is to determine how the Booking Hotel App's utility and the ease-of-use effect on customer satisfaction and desire to rebook with the same hotel or tendency to use the Booking Hotel App. Furthermore, it will investigate the mediating impact of consumer behavioral intention in the link between the study's characteristics and e-satisfaction. Furthermore, it will examine the moderator's role of e-trust that affects the link between satisfaction and consumer behavioral intentions.

2- LITERATURE REVIEW

2.1 Technology acceptance model (TAM) and its aspects

In 1989, Davis developed the Technology Acceptance Model (TAM) to predict and explain technological use and acceptance. TAM has been widely used in the hotel and restaurant business, as well as in other areas. Furthermore, The Technology Acceptance Model (TAM) was generally recognized in the hospitality sector, especially among hospitality firms, as a helpful and acceptable technique to analyze reactions to information technology (IT) management systems. (Chalomba and Gujral, 2016). The Technology Acceptance Model (TAM) examines the actual use of technology and the behavioral intention for future usage as major indications of the effect of numerous variables on the adoption and acceptance of technology in the hospitality sector. The behavioral intention is determined by one's attitude toward technology use and its perceived usefulness (PU). The perceived "ease of use (PEOU)" and real-world benefits impact use behavior. Developments might be identified by specifically examining whether a person evaluates a certain conduct positively or negatively (Ajzen, 1991).

Davis (1989) defined perceived usefulness as the degree to which a person feels that utilizing a certain technology or equipment would improve their ability to perform something. Consumers' perception of usefulness has continuously been proven in studies to have a direct impact on their behavioral intention (Chalomba and Gujral 2016). According to Davis (1989), perceived ease of use refers to the quantitative advantage that a person feels they will experience while utilizing a certain kind of technology. Individuals feel that this is the most influential factor in their decision to use technology (Davis, 1989). People from a range of user groups and device settings have utilized the Technology Acceptance Model (TAM) to show their acceptance of different technologies. Empirical study has demonstrated that, on average, the Technology Acceptance Model (TAM) explains around 40% of the variance in both behavioral intention and conduct. Consequently, the theory has the ability to reveal customers' underlying beliefs regarding the usage of digital booking in hotels (Cheng *et al*., 2019).

The initially developed TAM model featured observable ease-of-use elements, but the addition of perceived usefulness variables enabled organizations to devise methods for improving user acceptance and usage of new technology systems (Venkatesh and Davis 2000). Venkatesh and Davis (2000) carried out research with the purpose of improving the original TAM model. The research focused especially on the notion of perceived utility and intention to utilize. The model examines the contrasts between needing to utilize smart technology and opting not to. It complements the second technology acceptance paradigm by including other outside characteristics that may influence how simple something seems to be used, such as computer fear, pleasure, personal emotions of informational effectiveness, and a sense of having external control. Following testing on this model, the

variance in perceived ease of use and intention to use increased to 60%. In contrast, the reported utility ranged from 40% to 60%. This advancement paved the way for the formulation of the second technology acceptance model (Altanopoulou and Tselios, 2017).

Research by Chen and Li (2020) revealed an association between perceived usefulness (PU) and customers' tendency to use the Booking Hotel App. In the context of the study, perceived usefulness is defined as the extent to which customers believe that utilizing the Booking Hotel App and related applications would improve their purchasing behavior in the hospitality sector and seamlessly integrate into their daily shopping and purchasing activities, especially during critical periods such as the COVID-19 crisis.

Furthermore, Davis's (1989) Technology Acceptance Model (TAM) emphasizes the role of perceived usefulness and perceived ease of use in shaping users' acceptance of technology and behavior. Brandon-Jones, and Kauppi (2018) suggest that these cognitive aspects influence human adoption of technology. Previous research has shown the importance of tangible advantages in influencing consumers' intentions to embrace or use a service or technology. Kim (2018) found a strong relationship between perceived usefulness and intention to use mobile payment services.

A study by Chen and Li (2020) highlighted the significance of perceived usefulness in the adoption of modern technological apps in hospitality and mobile communities. In addition, Singh *et al*. (2020) found that customers must acknowledge the numerous benefits of these applications to participate in modern technologies. Perceived usefulness directly impacts users' reactions to apps, affecting their views and desire to interact with them. This emphasizes the critical role of concrete advantages in stimulating consumers' intentions, which then motivates their intention to use or embrace the relevant system or technology (Chen and Li, 2020). Hence, the following hypotheses were developed:

H1: Perceived Ease of use **(PEOU)** has a significant impact on behavioral intention **(BI).**

H2: Perceived Ease of use **(PEOU)** has a significant impact on e-satisfaction **(E-SAT).**

H3: Perceived usefulness **(PU)** has a significant impact on behavioral intention **(BI).**

H4: Perceived usefulness **(PU)** has a significant impact on e-satisfaction **(E-SAT).**

2.2 Behavioral intention (BI)

Behavioral intention applies to how much a person intends to use technology. Attitudes regarding technology have a direct influence on behavioral intentions. Accordingly, a positive attitude toward technology increases a person's willingness to use it. In contrast, customers with a negative attitude toward technology are less likely to wish to use it (Lee, 2018). Zeithaml *et al*. (1996) performed research that included particular positive behavioral intents such as loyalty, willingness to pay more, business goals, and external and internal emotions.

Repurchase intentions and positive word of mouth are often used in research to predict behavioral intentions. To promote good consumer behavior, hospitality managers must ensure that booking applications give a pleasant experience that enables visitors to access information and request or receive services in a sophisticated manner tailored to the individual tastes of distinct customer groups (Kim, 2016). Customers who like their interactions with hotel booking apps are more likely to have positive feelings about them, which motivates them to repeat the positive experiences. (Yim and Yoo, 2020).

On the other hand, Muylle et al. (2004) found that individuals become satisfied with a website and technology when its features exceed their expectations. As a result, websites and technology are regarded to have pleased users when their features exceed user expectations; consumers are happy when information systems correlate to the material shown (Teerling, 2004). Hotel guests are satisfied with hotel smartphone apps since they provide a variety of experiences. However, Consumers usually perceive smartphone apps for giving critical factual and experiential information about products, services, or brand identification (Deloitte 2014).

According to Venkatesh *et al*. (2003), two of the most important factors affecting behavioral intentions are perceived usefulness and ease of use. These factors impact people's behavioral intentions: perceived benefits and ease of use. People utilize technology because they feel it will help them accomplish their work more effectively (Davis, 1989), and they believe it is more useful if it is simple to use. Similarly, Asiri (2019) demonstrated that customers' attitudes about new technology influence their behavioral intentions. This means that the more acceptable a person's perception of something is, the greater their desire to engage in good behaviors and the lesser their intention to engage in negative ones. In light of this debate, the following hypotheses are developed:

H5: Behavioral intention **(BI)** has a significant positive impact on e-satisfaction**(E-SAT).**

2.3 Perceived risk of cybercrime (PRC)

The Perceived risk of cybercrime has a negative impact on hotel booking applications. To better understand e-booking and user behavior, Martins *et al*., (2014) developed a conceptual model that blends the "Unified Theory of Acceptance and Use of Technology (UTAUT)" paradigm with perceived risk. They supplied 249 replies to evaluate the model. The data supports a few UTAUT variables. Most notably, the data supports the notion that risk plays a larger role in predicting e-booking. Chaimaa *et al*. (2021) provide an overview of electronic hotel services. The research outlines risks and barriers to electronic service and provides solutions to overcome them. Security concerns are one of the challenges, while convenience is one of the benefits.

Banu *et al*. (2019) employ the TAM and studied the theory of planned behavior to assess online booking customer satisfaction. The analysis is based on data from 750 Indian respondents. The research uses hierarchical regression to see how perceived usefulness affects the correlations between customer satisfaction and several factors (awareness of online booking services, security, Internet knowledge, self-efficacy, intention to adopt, trust, and simplicity of use). His study emphasizes the possible influence of security concerns on the complex link between booking adoption aspirations and their underlying reasons. Based on the given empirical studies (empirical studies given) the following hypotheses are generated:

H6: Perceived risk of cybercrime **(PRC)** has a significant positive impact on behavioral intention **(BI).**

H7: Perceived risk of cybercrime **(PRC)** has a significant positive impact on e-satisfaction **(E-SAT).**

2.4 E-trust (ET)and E-satisfaction (E-SAT)

According to Hennig-Thurau and Klee (1997), trust is the ability to depend on a partner's actions. Previous research focused on the importance of trust on purchase intent and customer retention (Langat *et al*., 2021). Alalwan *et al*. (2018) and Hanafizadeh *et al*. (2014) recognized confidence in mobile booking as a crucial element impacting

customer perception and desire to adopt mobile technology. Sbaffi and Rowley (2017) used the terms trust and credibility interchangeably because of their conceptual similarity. Trust is essential for building long-term connections between businesses and customers, especially in uncertain mobile and online booking channels (Berraies et al., 2017). Alsaad et al. (2017) discovered that trust has a moderating effect on various consumer activities and intentions to cooperate, as well as Alam et al., (2021), concluded that trust has a moderating effect in online transactions.

Hotel guests may obtain experience knowledge and values via their interactions with hotel apps, as well as perspectives on the potential benefits of the learning process. By generating a range of experience values spanning from efficiency to enjoyment, hotel guests build an overall assessment and impression of hotel apps. Satisfied hotel guests are more likely to use hotel apps again and are more inclined to use them to plan future vacations (Chalomba and Gujral, 2016). Based on the discussion, the following hypotheses are devised as follows:

H8: E-trust **(ET)** moderates the relationship between behavioral intention **(BI)** and E-satisfaction **(E-SAT).**

3. Methodology

This research proposes a unified model that incorporates the TAM model, cybercrime risk, and e-satisfaction into a conceptual framework based on Kim's (2018) draw of consumer behavioral intention development. According to the conceptual model, hotel customers' e-satisfaction, which is determined by their perception of cybercrime risks, ease of use, usefulness, and e-trust, impacts their intention to re-use mobile booking applications (MBA). The study used quantitative techniques to investigate the association between factors. Data was gathered directly from hotel guests using a self-administered online questionnaire. The URL was randomly distributed to everyone who had a hotel reservation and utilized the mobile booking app (MBA).

Eight questions were derived from Cheng *et al*. (2006) to assess the constructs of perceived usefulness and perceived ease of use within the Technology Acceptance Model (TAM), while four questions were adapted from Rahi *et al*. (2019) and Sharma *et al*. (2020) to evaluate the behavioral intention to utilize Internet reservation services; these measures were employed to ensure the instrument's validity and the comparability of the findings. Each attribute was assessed on a five-point Likert scale, where 1 represented strong disagreement and 5 denoted strong agreement.

A total of 204 hotel guests completed and returned the questionnaire. Several scientific papers (Hadi *et al*., 2016 and Kyriazos, 2018) consider this sample size adequate for structural equation modeling (SEM). “Perceived usefulness (PU), perceived ease of use (PEOU), perceived risk of cybercrime (PRC), perceived e-trust (ET), and intention to use e-booking services are the independent variables within the study's context, while e-satisfaction(E-SAT) represents the dependent variable”.

SEM with maximum likelihood estimate was conducted and assessed in AMOS 23 to explore the predicted direct and indirect link between the constructs and the suggested model. In both the measurement and structural models, a two-phase technique was adopted, as suggested by Hair *et al*. (2010), Leong *et al*. (2013), and Wang *et al*. 2014. An exploratory factor analysis (EFA) was used to identify the main constructs in the first stage, and path analysis to determine the causal

relationships between these constructs in the second stage of confirmatory factor analysis (CFA) (Liu *et al*., 2014; Leong *et al*., 2015; Zopiatis *et al*., 2014). Factor loadings were utilized to assess how well specific questionnaire items represented their underlying components. In this case, internal consistency was assessed by using alpha and composite reliability. Measures that are not conceptually important to one another were examined for lack of association utilizing construct validity (Hubley, 2014). The average variance extracted (AVE) was specifically utilized to determine the validity of convergent conceptions. The discriminant construct's validity was evaluated using the Fornell and Larcker technique. The measuring model was evaluated first, followed by the structural model. The hypotheses are tested at this stage of the data analysis process. The next phase included utilizing bootstrapping to assess meaningful associations.

3.1 Results

3.1.1 Sample profile

The empirical findings indicate significant variation in the characteristics of the respondents. Table 1 indicates that 47.5 percent of the respondents identified as female, while 52.5 percent identified as male. Only 4.4% of respondents were under the age of 25, while the majority, 38.2%, fell within the 25 to 35 age range. Additionally, 37.3% were aged 36 to 45, and the remaining respondents were over 46 years old. Approximately 33.3% possessed a bachelor's degree or higher, while 28.9% held a diploma, and 37.7% attained a postgraduate degree.

Table 1: Distribution of gender, age, Job level and years of Experience

Indictor	Category	Percentages%
Gender:		
Male	107	52.5
female	97	47.5
Total	204	100%
Age:		
Under 25	9	4.4
From 25 to less than 35	78	38.2
From 36 to less than 45	76	37.3
Over 46 years old	41	20.1
Total	204	100%
Education level:		
Bachelor's degree	68	33.3
Postgraduate and professional degree	78	37.7
Diploma	59	28.9
Total	204	100%

3.1.2 Measurement model assessment

Confirmatory factor analysis (CFA) is utilized to establish the construct validity of a measurement model. In conducting CFA as advised by Hair *et al.* (2010), it is essential to meticulously evaluate reliability, convergent validity, and discriminant validity. A theoretical framework has been developed and validated, with all variables arranged, to analyze the interactions among variables. The measurement model demonstrates a satisfactory level of acceptance with the data. The chi-square statistics were significant, as the ratio of the chi-square value to the degrees of freedom was less than 3 (2.72 = 495.82, df = 182). The adjusted goodness-of-fit index (GFI) value was 0.902, the normal fit index (NFI) value was 0.916, the Tucker-Lewis index (TLI) value was 0.934, the comparative fit index (CFI) value was 0.946, and the Root Mean Square Error of Approximation (RMSEA) value was 0.059. The three main indicators of convergent validity are composite reliability, factor loadings, and average variance extracted (AVE).

The AVE in this study ranges from 0.55 to 0.74, exceeding the established threshold. The findings presented in Table (2) indicate that composite reliability (CR) is determined by the squared sum of the factor

loadings for each construct, along with the aggregate of all error variance components. The CR ranges from 0.83 to 0.92 (Brunner and Süß, 2005). Hair *et al*. (2010) recommend that a construct should exhibit loading estimates of 0.5 or higher, along with an average variance extracted (AVE) of 0.5 or higher, to ensure adequate convergence and reliability estimates. The measurements exceed the established criteria (Hu and Bentler, 1999). This indicates that the measurement model exhibits a strong alignment with the data.

Table 2: Validity and Reliability of Measurement Model

Constructs	Standardized Loadings	CR	AVE
Perceived Usefulness (PU)			
1. MBA eliminates the need to stand in long lines to make a reservation.	0.647	0.835	0.557
2. Reduces human-induced errors.	0.740		
3. Improve customer engagement.	0.878		
4. Data security is maintained through the utilization of modern technology for safe registration in these bookings.	0.793		
Perceived Ease of Use (PEOU)			
1. My relationship with MBA is clear and straightforward.	0.621	0.882	0.656
2. The MBA allows me to easily achieve my goals.	0.812		
3. The MBA was entertaining and approachable.	0.810		
4. The MBA demonstrates acceptable adaptability in interpersonal involvement.	0.958		
Perceived E-trust (ET)			
1. I have confidence in the degree of trust that customers invest in online booking, particularly with internet platforms for making bookings.	0.766	0.865	0.684
2. I am certain that my hotel guarantees the security of internet transactions.	0.715		
3. The confidentiality of my personal information is secured.	0.685		
Behavioral Intention (BI)			
1. By offering MBA that integrates location services, transaction functionalities, and refund possibilities, all available via a smartphone for improved efficiency and convenience, the hotel could build a strong relationship with its clientele.	0.885	0.921	0.742
2. In the future, I want to use my MBA rather than depend on conventional booking systems.	0.947		
3. MBA significantly improves customer engagement and loyalty to banks by emphasizing secure direct bookings and allowing users to redeem their accrued reward points.	0.792		
4. MBA provides an exceptionally effective electronic communication platform for hotel services.	0.811		
perceived risk of cybercrime (PRC)			
1. I am concerned about the possible misuse of my data.	0.813	0.894	0.680
2. I am worried about the possible revelation of my password.	0.896		
3. I have concerns about the capacity to guarantee the secure safeguarding of my personal account during online reservations.	0.805		
4. I believe that internet booking retains the possibility of imperfect transactions.	0.777		
E-satisfaction(E-SAT)			
1. Utilizing MBA is a superior approach to enhancing service quality and fostering excellent hotel experiences.	0.735	0.837	0.636
2. MBA Enhance customer engagement and optimize communication	0.883		
3. MBA meets the expectations of hotel customers in terms of service.	0.765		

1) Composite Reliability, 2) Average Variance Extracted

Moreover, Henseler *et al*. (2015) used several criteria to assess discriminant validity, which is defined as the extent to which measurements of different variables stay separate or exhibit little correlation. The Fornell and Larcker (1981) criteria necessitate the comparison of the square root of the average variance extracted (AVE) for each construct with the correlations between that construct and other constructs. Table (3) demonstrates that the square root of the average variance extracted (AVE) for each construct must exceed the correlations between that construct and other constructs within the model. This indicates that the notions possess discriminant validity.

Table3: Discriminant validity

	ET	BI	PRC	PEOU	PEOU	PU	E-SAT
ET	0.684	**0.827**					
BI	0.742	0.302	**0.861**				
PRC	0.680	0.42	0.078	**0.824**			
PEOU	0.656	0.236	0.412	-.0.077	**0.810**		
PU	0.557	0.186	0.535	0.017	0.632	**0.746**	
E-SAT	0.636	0.275	0.617	0.082	0.418	٠.731	0.797
Note: Construct correlations below the diagonal by taking the square root of AVE.							

3.1.3 Structural model assessment

Following the establishment of an adequate measurement model, the study proceeded to assess the structural model. The six GIF indicators were consistently used with measurement methodologies to evaluate the sufficiency of the structural model. The shown findings demonstrate that all measures ($\chi 2/df=2.9$, p=0.00; GFI=0.937; AGFI=0.90; CFI=0.937; TLI=0.926; RMSEA=0.061) exceeded the recommended thresholds. Consequently, the structural model attained a significant degree of alignment with the acquired data.

3.1.4 Hypothesis testing

Table (4) reflects the results of the path coefficient study. The findings indicate a significant positive relationship between perceived ease of use (PEOU) and both e-satisfaction (E-SAT) and behavioral intention. The beta coefficients for these relationships are 0.068 and 0.202, respectively, with p-values below 0.05. Consequently, H1 and H2 have been validated. The results indicate that the perceived risk of cybercrime (PRC) has a positive and substantial association with e-satisfaction (E-SAT) ($\beta = 0.062$ and 0.202, $p < .05$). Nonetheless, there is no relationship between PCR and behavioral intention (BI) ($p > .05$). As a result, hypothesis H3 was not validated, but hypothesis H4 was accepted.

Furthermore, figure (1) demonstrates a positive association between perceived usefulness (PU), behavioral intention (BI), and e-satisfaction (E-SAT) ($\beta = 0.545$ and 0.625, $p < .05$, respectively). The results support hypotheses H5 and H6. Moreover, it is notable that behavioral intention (BI) positively influences e-satisfaction (E-SAT), hence supporting H7.

Table 4: Indicators of hypothesis evaluation٩

Description	Estimate	p-values	Results
E-SAT <--- PEOU	0.068	0.013	Accepted
BI <--- PEOU	0.202	0.001	Accepted
BI <--- PRC	0.064	0.096	Rejected
E-SAT <--- PRC	0.062	0.016	Accepted
BI <--- PU	0.545	0.001	Accepted
E-SAT <--- PU	0.624	0.001	Accepted
E-SAT <--- BI	0.239	0.001	Accepted

Furthermore, the findings in Table 5 indicate that E-Trust (ET) has a substantial moderate effect on the link between behavioral intention (BI) and e-satisfaction (E-SAT),

shown by a beta value of 0.115 and a significance level of 0.001. Furthermore, the presence of PRC positively influenced the relationship between behavioral intention (BI) and e-satisfaction (E-SAT).

Table 5: moderating impact of E-trust (ET)

BI – E-Satisfaction	R2	T	B	P
Moderator	0.503	4.15	0.115	0.001

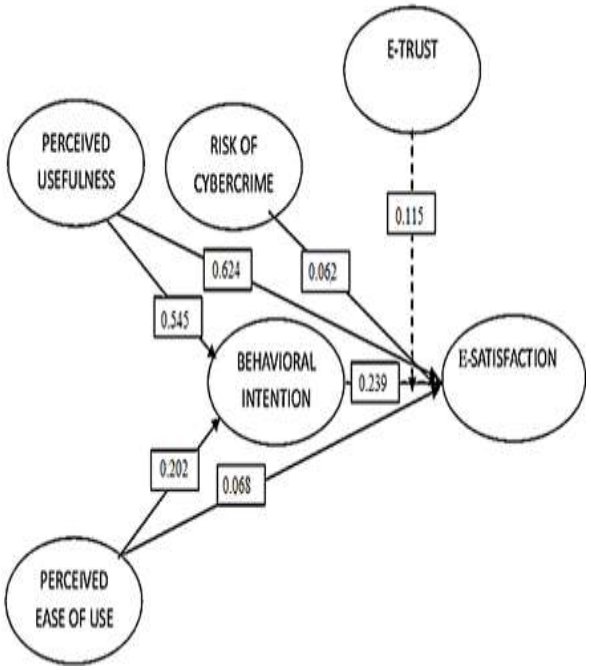

Fig 1: Conceptual framework results

4.DISCUSSION AND CONCLUSION

The potential benefits of a mobile app for e-booking on customer satisfaction have been investigated in this research. The paper emphasizes that using a smart mobile application for hotel bookings enhances client e-satisfaction by minimizing waiting times, automating procedures, and offering convenience. The research sought to investigate the impact of Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk of Cybercrime (PRC), and Perceived E-Trust (ET) on customer satisfaction, emphasizing their Behavioral Intention (BI).

Additionally, the impact of E-Trust on the correlation between behavioral intention and customer e-satisfaction was investigated. The present findings substantiate the e-satisfaction hypothesis by demonstrating the impact of various factors on customer e-satisfaction. These results are in line with results of Peyton *et al*. (2003). The findings indicate that perceived usefulness (PU) and perceived ease of use (PEOU) positively affect behavioral intention (BI) and consumer e-satisfaction (E-SAT). These results correspond with previous research by Yawised *et al*. (2022), which showed that hotel smartphone application platforms are often used by customers both before their journey and throughout their visit. In the pre-trip phase, hotel guests often prioritize smartphone apps for activities like information gathering, getting notifications on room availability, making reservations for dining and spa services, seeking room upgrades, and engaging in loyalty programs. Hotel guests can utilize several essential features during their stay, including regulating the guestroom temperature, requesting room amenities and service, and using their smartphones as a remote control for the television via hotel applications. Hotel guests may create a personalized travel profile that serves as a consolidated repository for their information and interests. Consequently, these interactions may lead to e-satisfaction over the hotel's services and strengthen the hotel's relationship with the visitor post-stay.

Moreover, the study discovered that the association between customer e-satisfaction and positive behavioral intention (BI) was strengthened by perceived e-trust (ET). This study indicates that hotels may improve customer e-satisfaction (E-SAT) by fostering a sense of E-trust (ET) and using robust security protocols. These measures include security controls, authentication systems, and alternate payment methods that assist in mitigating such risks. Customers have heightened security and confidence when they have control over their

personal information, signifying the establishment of stringent security and privacy measures (Yusuf *et al*., 2023). The safeguarding of customers' sensitive information, including credit card data, identity, and passwords, directly impacts their behavioral intentions and e-satisfaction (E-SAT) by mitigating the perceived risks associated with using online hotel services.

Study findings also reveal that the perceived risk of cybercrime (PRC) has a strong association with e-satisfaction (E-SAT) but not with behavioral intention (BI), which is an intriguing discovery. This finding contrasts with Previous research has shown a link between some features of behavioral intention (BI) and perceived risk of cybercrime (PRC) (Hooda *et al*., 2022). This finding does not support the stated theory. These findings suggest that, although consumers who perceive a higher risk of cybercrime may be happier, their level of trust in the hotel mobile app does not necessarily translate into real behavioral intention (BI). The findings show the importance of hotels prioritizing Perceived risk of cybercrime (PRC) while creating e-booking reservation systems. They should also work on improving customer security against cybercrime. To increase the acceptance and usage of app systems, it is essential to realize their potential to greatly contribute to the success of hotels and programs.

Furthermore, the findings show that e-trust (ET) strengthens the effect of behavioral intention (BI) on customer e-satisfaction (E-SAT). Meanwhile, e-trust (ET) serves as a moderator in the link between behavioral intention (BI) and client e-satisfaction (E-SAT). Specifically, when e-trust (ET) is high, perceived simplicity of use and usefulness have a greater positive impact on consumer e-satisfaction (E-SAT) and subsequent behavioral intention (BI).

4. IMPLICATIONS AND FUTURE RESEARCH

Customer e-satisfaction is a complex concept with antecedents in social psychology and consumer behavior theories (Oliver, 1980). Furthermore, in the hotel business, consumer e-satisfaction has been shown to be a major predictor of both long-term customer behaviors and future customer actions (Jayawardena *et al.*, 2022). Customers may simply choose their post-purchase intents when they are happy, which has traditionally resulted in attitude shifts due to consumer knowledge and learning from previous experiences. Customer satisfaction with individual experience assists in determining the efficiency of goods or services in terms of quality or overall results as judged against an evaluative standard.

Interactive components may also have an influence on customer e-satisfaction with hotel smartphone apps. Recognizing that contemporary hotel guests are more inclined to seek out interactive experiences and handcrafted creations, many hotel chains attempt to provide their clients with unique experiences that increase brand exposure and cannot be acquired from competing smartphone web services. Hotel clients may remain pleased and have pleasant experiences if they can participate in the process and get prompt results and responses via an app service.

Furthermore, the impact of perceived cybercrime on consumer behavioral intention was excluded among this factor's components (variables). However, it was discovered that the other three components in this factor "reported ease of use and perceived usefulness", had an effect on consumer behavioral intention.
To ensure effective adoption of mobile apps, e-booking service providers must ensure that

their online services are trustworthy. Based on these findings, hotel management may be encouraged to optimize server performance by implementing a comprehensive CMS (Content Management System), many unique IP (Internet Protocol) addresses at the same time, and DNS (the domain name system). Furthermore, hotels must prioritize and continually enhance the security and privacy elements of the e-services they provide. To do this, they may utilize current technology and stringent security procedures to prevent unauthorized parties from accessing, using, modifying, or deleting online consumers' information.

To further explain differential impacts, future research might include other moderating factors such as age, digital literacy, or platform type. Combining quantitative models with qualitative interviews or tests may help to confirm results and get a better understanding of users' behavioral motivations.

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