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RESEARCH ARTICLE

Antecedents of Customer Loyalty in Mobile Hotel Reservation Applications

Görkem Erdoğan[1]

[1] Asst. Prof. Dr. Ankara Science University
İstanbul /Türkiye
ORCID: 0000-0002-2417-2718
E-Mail:
gerdogan83@hotmail.com

Corresponding Author:
Görkem Erdoğan

Abstract

This study aims to identify the determinants of customer loyalty in mobile hotel booking applications (MOHOREAPP) in Turkey. The research developed a model integrating variables such as performance expectancy, trust, social influence, customer satisfaction, convenience, compatibility, perceived risk, and loyalty, which was examined using structural equation modeling. A survey was conducted, and data were collected from 511 MOHOREAPP users across Turkey. The results indicate that performance expectancy and trust have a significant relationship with MOHOREAPP customer satisfaction. It was found that performance expectancy and trust have a positive and significant effect on loyalty. Additionally, customer satisfaction, convenience, and compatibility have a positive effect on loyalty, while perceived risk has been identified to have a negative effect on loyalty. These findings provide important insights for companies developing mobile hotel booking applications, highlighting the areas to focus on to increase customer loyalty. Consequently, this study makes a critical contribution to understanding the factors that influence the loyalty of MOHOREAPP users and in shaping customer relationship strategies.

Keywords: *Loyalty, Mobile Hotel Reservation Applications, Mobile Commerce, Hospitality*

Öz

Bu çalışma, Türkiye'deki mobil otel rezervasyon uygulamaları (MOHOREAPP) üzerinden müşteri sadakatinin neye bağlı olduğunu keşfetmeyi amaçlamaktadır. Araştırmada, müşteri sadakatinin oluşumunda etkili olduğu düşünülen performans beklentisi, güven, sosyal etki, müşteri memnuniyeti, uygunluk, uyumluluk ve algılanan risk gibi değişkenleri içeren bir model geliştirilmiştir. Bu model, yapısal eşitlik modellemesi yöntemiyle detaylı bir şekilde incelenmiştir. Türkiye genelinde yapılan anket çalışmasıyla, 511 MOHOREAPP kullanıcısından elde edilen veriler analiz edilmiştir. Araştırma sonuçları, performans beklentisi ve güven unsurlarının müşteri memnuniyeti ile güçlü bir ilişkiye sahip olduğunu ortaya koymuştur. Bu iki faktörün, müşteri sadakatini önemli ölçüde etkilediği ve sadakat üzerinde pozitif bir etki yarattığı görülmüştür. Ayrıca, müşteri memnuniyetinin, uygunluğun ve uyumluluğun da müşteri sadakati üzerinde olumlu bir etkisi olduğu, buna karşılık algılanan riskin ise sadakat üzerinde olumsuz bir etkiye sahip olduğu tespit edilmiştir. Bu bulgular, mobil otel rezervasyon uygulamalarını geliştiren şirketler için, müşteri sadakatini artırmak adına odaklanmaları gereken alanları belirlemekte önemli bir kaynak teşkil etmektedir. Sonuç olarak, bu çalışma, MOHOREAPP kullanıcılarının sadakatini etkileyen faktörleri anlamada ve müşteri ilişkileri stratejilerini şekillendirmede kritik bir katkı sağlamaktadır.

Anahtar Kelimeler: *Sadakat, Mobil Otel Rezervasyon Uygulamaları, Mobil Ticaret, Konaklama*

Introduction

With the progression of communication technologies, the use of mobile devices has started to increase day by day. The quantity of mobile devices in the globe in 2021, which reached 14.92 billion with an increase of approximately 1 billion compared to 2020, is projected to amount to 18.23 billion by 2025 (Statista, 2022a). Mobile devices, which have increased enormously every year, are not only used for voice communication, but after the integration of the internet into mobile devices, communication of mobile devices with other internet-connected devices has been ensured. The number of smartphone users, which amounted to 6.26 billion in 2021 with an increase of approximately two times compared to 2016, is estimated to reach 7.51 billion in 2026 with a rise of 1.25 billion (Statista, 2022b). Due to the fact that people purchase mobile devices connected to the Internet in huge quantities, businesses have focused on mobile website design and mobile application development, where corporations will be in rich interactions with their customers.

With the prevalence of mobile devices among users, the adaptation of businesses to mobile technologies has led individuals to use mobile commerce. The preferences of users to use their mobile devices in their travel preferences have caused to the employ of mobile commerce in the hotel industry at a high rate (Murphy et al., 2016). Thanks to mobile devices connected to the Internet, users can make hotel research and access information about the hotel they want to go from any time and any place. Hotel transactions made by people without space and time restrictions have caused them to leave their personal computers and use the mobile devices they carry with them (Gibbs et al., 2016). 61 percent of American travelers booked and paid for trip via their smartphones in 2017 due to the convenience and flexibility of the mobile devices (Travel Agent Central, 2018).

In total tourism revenue, reservations made from mobile devices account for a considerable percentage, and hotels are one of the most widespread sectors for reservations made from smartphones (Dias and Alfonso, 2020). As three-quarters of hotel businesses has believed it is essential to suggest a mobile reservation

opportunity, the tourism industry has introduced mobile hotel reservation applications (MOHOREAPP), causing people who have transactions with hotels to complete their transactions in a short time (Wang and Wang, 2010; Ozturk et al., 2016b). With this application, which is always ready for use, consumers have the opportunity to find hotels, access information about hotels, compare hotel prices, and make hotel reservations. With the convenience of one-click transactions on mobile devices, hotel reservations made from mobile devices grew by 67% in 2017 compared to the prior year, while hotel reservations made from personal computers rose by only 4% (Travel Agent Central, 2017).

Since mobile hotel reservation systems have appeared as a crucial delivery technological innovation for hotel businesses and online travel agencies, it is necessary to realize the customer loyalty in MOHOREAPP. Customer loyalty has turn out to be an important matter for businesses because it is more costly to acquire new customers than retaining existing customers, increased long-term profits, reduced marketing costs, high market share gain and competitive advantage. (Aeker, 1991; Reichheld and Schefter, 2000; Luarn and Lin, 2003; Lin and Wang, 2006). Due to these advantages provided to the hotels and agencies that launch the MOHOREAPP, it has become necessary for the relevant institutions to establish long-term connections that lasts many years with their customers.

Most of the past studies on mobile hotel reservations (Wang and Wang, 2010; Ozturk et al., 2016b; Wang et al., 2016; Kim et al., 2021; Mohamad et al., 2021) and mobile hotel applications (Huang et al., 2019; Stocchi et al., 2019; Hossny, 2021) have focused on user's adaptation and usage behavior. Research on customer loyalty in MOHOREAPP is limited. The aim of study is to investigate the factors affecting the customer loyalty within the context of MOHOREAPP in Turkey. By integrating performance expectancy, trust, social influence, satisfaction, convenience, compatibility, perceived risk and loyalty and investigating the effect of performance expectancy, trust, satisfaction, convenience, compatibility, perceived risk on loyalty in the study, research intends to fill the gap in the literature of mobile

tourism. The purpose of the study answers the following research questions: 1) How performance expectancy, trust and social influence affect satisfaction in MOHOREAPP? 2) How performance expectancy, trust, satisfaction, convenience, compatibility, perceived risk influence customer loyalty intentions within the context of MOHOREAPP?

Literature Review

Mobile Hotel Reservation Applications (MOHOREAPP)

MOHOREAPP is defined as online service systems that can be integrated with location-based information, where users can make hotel reservations anytime and anyplace for holiday plans using mobile applications (Wang and Wang, 2011). MOHOREAPP are downloaded on the mobile devices from platforms such as Google Play, App Store or Huawei AppGallery for free. With the global positioning systems used in these applications that identify the user's location, travelers looking for hotels can access the hotels closest to their location with a one simple button click, thus saving time.

MOHOREAPP fall into two main categories. In the first category, hotels design mobile applications that include their own brands for their customers. Many hotels such as Marriott Bonvoy, Radisson Hotels, Wyndham Hotels, Hyatt Hotels provide their customers with hotel reservation opportunities, information about their hotels and special offers with their own branded mobile applications. The second category is mobile applications such as Hotels.com, Etstur, Jolly Tour, which are the most used in Turkey, which collect information and reservation processes of many different hotels in their own application and offered by the third party institutions.

Loyalty (LOYA)

LOYA has been defined as "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future" (Oliver, 1999, p.34). LOYA consists of two dimensions, behavioral and attitudinal. While the behavioral dimension includes the consumer's repeated purchases of the brand to which they are affiliated, attitudinal loyalty includes commitment and positive emotional ties to the relevant brand (Chaudhuri and Holbrook, 2001). While consumers with long-term loyalty do not easily change their brand preference, consumers with short-term loyalty may switch to another brand under the influence of external factors or marketing efforts of other brands (Jones and Sasser, 1995).

Earlier studies focused on the determinants of customer LOYA within the context of mobile commerce in Taiwan (Lin and Wang, 2006), in Canada (Cyr et al., 2006) and in Croatia (Delić et al., 2017). Constructs of perceived value, trust, customer satisfaction, habit (Lin and Wang, 2006), factors of usefulness and enjoyment (Cyr et al., 2006) determinants of reliability and satisfaction, convenience, price, innovativeness have positive effect on LOYA.

Lee and Lee (2019) investigated the factors that impact the brand LOYA in branded hotel mobile applications and found that customer engagement and brand trust had a direct and positive effect on brand LOYA. Ozturk et al. (2016b) examined the determinants of consumer LOYA in the mobile hotel booking systems and showed that perceived simplicity of usage, compatibility and realized convenience had a significant association with LOYA. Ozturk (2017) developed a framework for customer LOYA in mobile hotel booking systems and declared that trust had a positive influence and realized risk had a negative influence on LOYA.

Performance Expectancy (PEEX)

PEEX refers to "the degree to which using a technology will provide benefits to consumers in performing certain activities" (Venkatesh et al. 2012, p.159). MOHOREAPP provides benefits in suggesting nearby hotels by using the GPS system while travelers are searching for hotels and presenting information about hotels more conveniently (Wang and Wang, 2010). Zhou et al. (2010) declared that PEEX is close to perceived usefulness in technology acceptance model in the meaning and the functions. Earlier studies have

found that perceived usefulness (Shang and Wu, 2017) and PEEX (Marinković et al., 2020) has a positive impact on satisfaction within the context of mobile commerce. In the research of Tao et al. (2018) on mobile hotel booking, they have justified that PEEX significantly affect customer loyalty. Thus, the following hypotheses which are related with PEEX are proposed based on the previous literature.

H1a: PEEX significantly influences customer satisfaction in MOHOREAPP.

H1b: PEEX significantly influences customer LOYA in MOHOREAPP.

Trust (TRST)

TRST has been referred as one party's belief that the other individual will meet his/her demands. TRST is defined as person's confidence in the honesty and trustworthiness of the party with whom he is in contact (Anderson and Weitz, 1989). In mobile commerce, which is a virtual world where there is no face-to-face communication, TRST emerges as an even more significant and complicated issue (Chong et al., 2010). Within the context of mobile reservation systems it reflects the positive expectations of individuals to MOHOREAPP and its providers such as hotels or third party institutions. Previous studies on mobile commerce posits a positive and significant relationship between TRST and customer satisfaction (Lin and Wang, 2006; Chong, 2013; Marinkovic and Kalinic, 2017). Besides, TRST positively affects LOYA within the context of MOHOREAPP and their systems (Ozturk et al., 2017), mobile commerce (Jimenez et al., 2016) and mobile banking (Barraies et al., 2017). Therefore, study proposes the following hypotheses:

H2a: TRST significantly influences customer satisfaction in MOHOREAPP.

H2b: TRST significantly influences customer LOYA in MOHOREAPP.

Social Influence (SOIN)

SOIN is defined as "the extent to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et al., 2003, p.453). If the MOHOREAPP that the

traveler uses when booking the hotel is placed in an important place by relevant consumer's family, friends, relatives, SOIN will occur. Hsiao et al. (2016) has investigated the continuance usage of mobile applications by collecting 378 questionnaires, they found that SOIN and ties have an effect on customer satisfaction. Marinković et al. (2020) has declared the significant impact of SOIN on shopper satisfaction within the context of mobile commerce. Thus, the following hypothesis about SOIN is suggested:

H3: SOIN significantly influences customer satisfaction in MOHOREAPP.

Customer Satisfaction (CUSA)

CUSA establishes due to the positive experience of the consumer after the product usage and the fact that the relevant product meets the expectations of the consumer (Bogicevic et al., 2017). Moreover, CUSA occurs as a result of the positive perceived value in the consumer (Hallowell, 1996). Within the scope of hotel reservation systems, CUSA arises when the performance provided by the MOHOREAPP to the customer exceeds the customer's expectations about the mobile applications (Oliver, 1980). Based on the Kim et al. (2020) mobile hotel reservations systems study, they stated that CUSA has significant and positive impact on reuse intention. Lee and Wong (2016) examined the factors that influence LOYA in mobile commerce and demonstrated a significant relationship between CUSA and LOYA. Besides, in prior research of mobile commerce, CUSA was found to give rise to LOYA among Taiwan mobile users (Lin and Wang, 2006). Based on the empirical evidence about CUSA in MOHOREAPP and other mobile applications from the past studies, following hypothesis is proposed:

H4: CUSA significantly influences customer LOYA in MOHOREAPP.

Convenience (CONV)

The CONV of a service or good depends on the attempt that the product triggers on the consumer and the time spent by the consumer (Berry et al., 2002). The product is believed to be a CONV when the consumer spends little time and effort on the

product. CONV is represented by five factors: time, location, gain, use and execution (Brown, 1990). The MOHOREAPP provides convenience in terms of time and place while providing hotel reservations to consumers, as consumers can use the application whenever and wherever they want. Besides, hotels and third-party organizations provide convenience to consumers by executing these mobile services. Delić et al. (2017) has found that CONV affects LOYA in the mobile commerce. Earlier mobile hotel booking research also presents what constructs drive to LOYA and CONV has been indicated to significantly impacts the LOYA (Ozturk et al., 2016a; Tao et al., 2018). Thus, Hypothesis 5 is established in the present study.

H5: CONV significantly influences customer LOYA in MOHOREAPP.

Compatibility (COMP)

COMP is the degree to which innovations experienced by the user are consistent with people's beliefs, experiences, and demands. COMP at study is the degree to which the MOHOREAPP is compatible with the lifestyles and past experiences of travelers planning to book hotels. If shoppers feel that mobile commerce is compatible with their way of life and experiences, they will adapt to mobile shopping more certainly (Liébana-Cabanillas et al., 2015). Study of Wang et al. (2016) with 140 hotels in Taiwan has revealed that COMP has a positive impact on hotels' adoption on mobile hotel reservation systems. The studies about mobile hotel reservation systems have shown that LOYA is affected by the COMP (Ozturk et al., 2016a; Tao et al., 2018). Hence, the following hypothesis about COMP is proposed:

H6: COMP significantly influences customer LOYA in MOHOREAPP.

Perceived Risk (PERI)

Kim et al. (2008) defined PERI as users' belief in the negative results in online transactions due to the ambiguity of these systems. More than 80 percent of individuals who are using internet are concerned about their personal information being found on the online systems (Rana et al., 2015). Because mobile devices have smaller screens and

keyboards, and limited functionality compared to personal computers, users are exposed to more risks on mobile devices when using the MOHOREAPP they use to book hotels. Regarding mobile commerce adoption, Zhang et al. (2012) has concluded that PERI negatively affects behavioral intention. PERI directly and negatively has influenced mobile hotel reservation system's LOYA through attitudes toward use of MOHOREAPP (Ozturk et al., 2017). Thus:

H7: PERI significantly and negatively influences customer LOYA in MOHOREAPP.

The proposed model which has integrated a set of variables, PEEX, TRST, CUSA, CONV, COMP, PERI and LOYA, is shown in Figure 1.
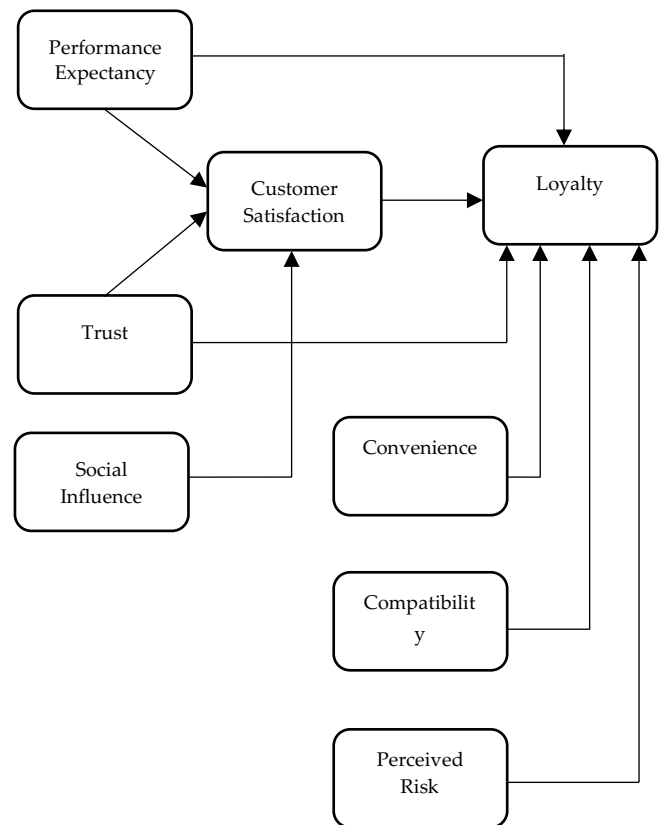

Figure 1. Research Model

Methodology

Instrument Development

The scales for PEEX are adapted from Venkatesh et al. (2003), the scales for TRST are taken from Hsieh and Hiang (2004), and the scales for SOIN are adapted from Marinkovic and Kalinic (2017). CUSA consisting of three variables are adapted

from San-Martin and López-Catalán (2013) and CONV consisting of three variables are adapted from Yoon and Kim (2007). COMP is captured from the study of Wang et al. (2016) and PERI is captured from the study of Im et al. (2008). Finally, the three items of LOYA are based upon the study of Lin and Wang (2006). The items of the constructs of the study, which are PEEX, TRST, SOIN, CUSA, CONV, COMP, PERI, and LOYA, are evaluated on a seven-point Likert-type scale.

Data Collection and Sample

People living in Turkey and using the MOHOREAPP on their mobile devices constitute the population of this study. A screening question is employed to confirm that only respondents who are over the age of 18 and have prior knowledge using MOHOREAPP has participated in the survey. The survey with a convenience sampling design is carried out in provinces of Turkey. Based on the 1:5 measurement-observation recommendation by Hair et al. (2010), since there are 25 items, the minimum sample size to be valid for the study was calculated as 125. Based on this recommendation, a questionnaire was distributed to 550 people who are over the age of 18 and used the MOHOREAPP in the past. After eliminating 39 respondents due to the high missing value, A total of 511 valid questionnaires was retained for data analysis. Table 1 shows the demographics of the 511 respondents.

Results

Following the Anderson and Gerbing (1988), the first step is the measurement model which assess the validity and reliability of the scales by using AMOS 24 and SPSS 26 and the second movement is structural model estimation to test the hypothesis using structural equation modelling with AMOS 24.

Measurement Model

Confirmatory factor analysis is carried out on measurement model to evaluate the validity and reliability of instruments. The measurement model had CMIN=310.473 (DF=247; p<0.01) and CMIN/DF=1.257. NFI was equal to 0.968, TLI was equal to 0.991, CFI was equal to 0.993, and RMSEA was equal to 0.022. As the goodness of the fit indices of the model consisting of PEEX, TRST, SOIN, CUSA, LOYA, PERI, CONV, COMP constructs were in the recommended value (Bagozzi and Yi, 1988; Hair et al., 2010), it was inferred that the measurement model of MOHOREAPP fit well with the data.

Cronbach's alpha values of the measures ranged between 0.782 and 0.951 exceeding the recommended level of 0.7 (Nunnally, 1987) and composite reliability (CR) of latent constructs surpassed the recommended threshold of 0.6 (Bagozzi and Yi, 1988). Based upon the suggestion of Hair et al. (2010) factor loadings of the study were greater than 0.5 and items were significant (p=0.000).

Table 1. Demographics of Respondents

Variables	Category	n	%
Gender	Male	362	70.84%
	Female	149	29.16%
Age	18-29	121	23.68%
	30-41	156	30.53%
	42-53	132	25.83%
	54 +	102	19.96%
Income	Less than 10000 TL	82	16.05%
	10000 - 14499 TL	111	21.72%
	15000 - 19999 TL	182	35.62%
	20000 TL +	136	26.61%
Education	Below high school	82	16.05%
	High school	141	27.59%
	Bachelor's degree	193	37.77%
	Master's or PhD degree	95	18.59%

Average variance extracted (AVE) values of the constructs ranged from 0.539 to 0.859, exceeding the accepted threshold of 0.5 (Fornell and Larcker, 1981). Table 2 represents the validity and reliability of the MOHOREAPP's measurement model indicating that convergent validity and reliability were supported.

Discriminant validity is tested by the criteria of Fornell and Larcker (1981) which compares the square root value of AVE with the correlations between PEEX, TRST, SOIN, CUSA, LOYA, PERI, CONV, COMP constructs. As it can be seen from Table 3, the square root of AVE values written in bold are higher than the correlation between the PEEX, TRST, SOIN, CUSA, LOYA, PERI, CONV, COMP variables, so the discriminant validity was ensured.

Table 2. Results of Measurement Model

Constructs	Standardized Loadings	AVE	Composite Reliability	Cronbach's Alpha
PEEX		0.838	0.953	0.951
PEEX1	0.793			
PEEX2	0.972			
PEEX3	0.968			
PEEX4	0.918			
TRST		0.660	0.852	0.846
TRST1	0.694			
TRST2	0.877			
TRST3	0.855			
SOIN		0.547	0.784	0.782
SOIN1	0.765			
SOIN2	0.701			
SOIN3	0.753			
CUSA		0.828	0.935	0.933
CUSA3	0.898			
CUSA2	0.970			
CUSA1	0.860			
LOYA		0.859	0.948	0.946
LOYA1	0.879			
LOYA2	0.964			
LOYA3	0.936			
PERI		0.810	0.927	0.924
PERI3	0.859			
PERI2	0.968			
PERI1	0.869			
CONV		0.539	0.777	0.772
CONV3	0.807			
CONV2	0.719			
CONV1	0.672			
COMP		0.711	0.880	0.879
COMP3	0.803			
COMP2	0.902			
COMP1	0.822			

Table 3. Discriminant Validity Matrix

	PEEX	TRST	SOIN	CUSA	LOYA	PERI	CONV	COMP
PEEX	**0.915**							
TRST	0.177	**0.812**						
SOIN	0.252	0.188	**0.739**					
CUSA	0.181	0.258	0.131	**0.909**				
LOYA	0.365	0.253	0.350	0.302	**0.926**			
PERI	-0.051	-0.069	-0.167	-0.078	-0.365	**0.900**		
CONV	0.167	0.128	0.170	0.155	0.361	-0.142	**0.734**	
COMP	0.154	0.067	0.137	0.111	0.335	-0.217	0.149	**0.843**

Structural Equational Model

After completing the first step, the second step approach of Anderson and Gerbing (1988) is to test the hypotheses. The goodness of fit statistics revealed that all the model fit indices surpassed their tolerance levels indicated by Bagozzi and Yi (1988), Hair et al. (2010) (CMIN=330.103, DF=251, p<0.01; CMIN/DF=1.315; NFI=0.966; TLI=0.989; CFI=0.992; RMSEA=0.025).

Table 4. Results of Structural Modeling Analysis

Structural Paths	Std. Path Coefficients	t-value	p	Results
H1a: PEEX -> (+) CUSA	0,126	2,706	0,007	Supported
H1b: PEEX -> (+) LOYA	0,238	5,971	0,000	Supported
H2a: TRST -> (+) CUSA	0,225	4,551	0,000	Supported
H2b: TRST -> (+) LOYA	0,114	2,727	0,006	Supported
H3: SOIN -> (+)CUSA	0,063	1,213	0,225	Not Supported
H4: CUSA -> (+) LOYA	0,161	4,091	0,000	Supported
H5: CONV -> (+) LOYA	0,224	5,072	0,000	Supported
H6: COMP -> (+) LOYA	0,186	4,536	0,000	Supported
H7: PERI -> (-) LOYA	-0,264	-6,646	0,000	Supported

Figure 2 and Table 4 represents the structural relationship among the PEEX, TRST, SOIN, CUSA, LOYA, PERI, CONV, COMP constructs and the standardized path coefficients. PEEX ($\beta_{PEEX-CUSA}$=0.126, p < 0.01) and TRST ($\beta_{TRST-CUSA}$=0.225, p < 0.001) had positive effects on CUSA, supporting H1a and H2a. PEEX ($\beta_{PEEX-LOYA}$=0.238, p < 0.001), TRST ($\beta_{TRST-LOYA}$=0.126, p < 0.01), CUSA ($\beta_{CUSA-LOYA}$=0.161, p < 0.001), CONV ($\beta_{CONV-LOYA}$=0.224, p < 0.001), COMP ($\beta_{COMP-LOYA}$=0.186, p < 0.001) were found to positively influence LOYA to use MOHOREAPP. Results supported H7 indicating a negative relationship between PERI and LOYA ($\beta_{PERI-LOYA}$=-0.264, p < 0.001). Finally, SOIN didn't

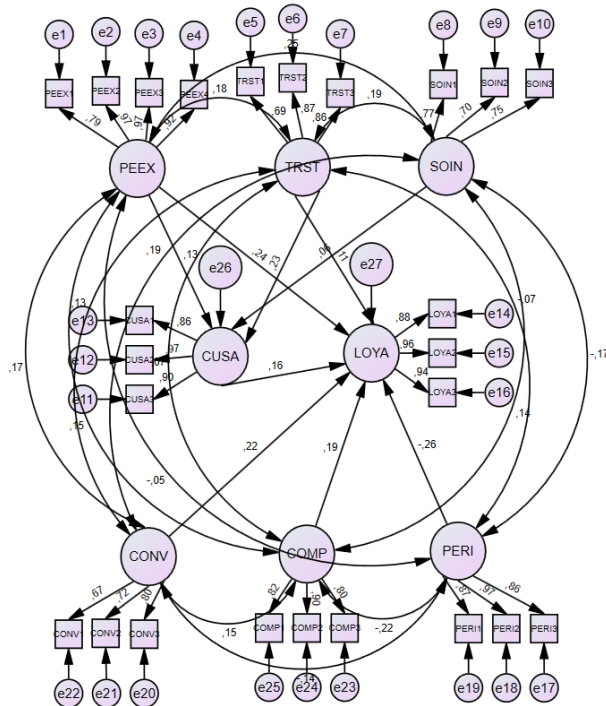exhibit a significant relationship with CUSA, therefore hypothesis 3 is not supported.

Figure 2. Analysis of Structural Model

Discussion

The study investigated the factors affecting the LOYA within the context of MOHOREAPP. Research integrated the PEEX, TRST, SOIN, CUSA, CONV. COMP, PERI into the proposed model and examined the impact of PEEX, TRST, SOIN on CUSO and PEEX, TRST, CUSA, CONV, COMP, PERI on LOYA. All the hypotheses except H3 were accepted in the study.

Study showed that PEEX positively impacts CUSA in MOHOREAPP and the result about PEEX-CUSA link is consistent with the prior study (Marinković et al., 2020). The perception of users that the MOHOREAPP will make hotel reservations faster and the idea of improving hotel reservation performance will increase CUSA. Besides, study found that PEEX influences LOYA like other study's findings (Tao et al., 2018). Travelers who think that they benefit from MOHOREAPP while using this application will go on to use the MOHOREAPP in the future.

Study results reveals a positive relationship between TRST and CUSA and this result is consistent with the studies of Chong (2013),

Marinkovic and Kalinic (2017). If the traveler perceives the transactions made in the MOHOREAPP as safe and the consumer's privacy is well protected, the mobile application will meet the expectations of the consumer. Moreover, the finding of the Hypothesis 2b indicates that TRST is positively related to LOYA, and this result is in line with the studies of Ozturk et al. (2017), Jimenez et al. (2016). When the transactions of MOHOREAPP are trustworthy and security measures in this application are passable, the LOYA level of the individual will improve.

The study's finding for hypothesis 3 stating that SOIN is positively related to LOYA is not significant and this finding supports research by Marinkovic and Kalinic (2017). The use of the MOHOREAPP by the person's social circle such as family and relatives will not increase the level of satisfaction of the person with the application. Travelers who start using the MOHOREAPP under the influence of media elements such as TV and radio will not be satisfied with the application.

The hypothesis 4 result of this study indicates that CUSA influences LOYA significantly in MOHOREAPP and this result confirms findings from prior research (Lin and Wang, 2006; Lee and Wong, 2016). When MOHOREAPP services meet travelers' expectations and customers' experience with using this mobile application is positive, level of the LOYA will rise and travelers will recommend other people to use this service.

Hypothesis 5 result of this study also confirms that the CONV has a significant influence on LOYA, similar to findings by Ozturk et al. (2016a), Tao et al. (2018). Making hotel reservations with MOHOREAPP at the desired place and time will lead to increase the loyalty level of the traveler. Other result of the study reveals that the changes brought by the MOHOREAPP are consistent with the current beliefs and values of the traveler causes him to continue using the mobile application and this is similar to the result found in studies of Ozturk et al. (2016a), Tao et al. (2018). Finally, the fact that the MOHOREAPP contains uncertainties and makes the traveler outraged because of the poor performance of the mobile application causes the individual not to use the application in the future. This finding supports research by Zhang et al. (2012), Ozturk et al. (2017).

Implications, Limitations and Future Research

From a theoretical perspective, study empirically validated the proposed model consisting of PEEX, TRST, SOIN, CUSA, CONV, COMP, PERI, LOYA in the MOHOREAPP, examining the direct and indirect impacts of PEEX, TRST, SOIN on CUSA and PEEX, TRST, CUSA, CONV, COMP, PERI on LOYA. According to the path coefficients TRST showed the strongest effect on CUSO and PERI exhibited the strongest negative impact on LOYA. Outcomes of study contributed to the present MOHOREAPP systems' literature by exploring antecedents of CUSA and antecedents of LOYA in MOHOREAPP within the hotel industry. Even though many existing literatures in mobile hotel reservations system concentrates on the adoption and behavioral intention of the travelers, research delivers insight into the customer LOYA and consumer's continued use of the MOHOREAPP. With very little research focusing on how mobile hotel reservation users keep loyal in the MOHOREAPP, research serves up as a valuable underpinning by offering an intuitive insight of MOHOREAPP for researchers.

From a managerial perspective, study reveals the significance of user LOYA of MOHOREAPP within the hospitality and tourism industry. When service providers of mobile application design and develops MOHOREAPP, they should focus on PEEX, TRST, CUSA, CONV, COMP, PERI to rise travelers LOYA. Hotels and third-party organizations should design the MOHOREAPP to quickly complete the customer's hotel reservations in order to enhance the LOYA and CUSA level of their customers. Hotels should provide the necessary infrastructure in the MOHOREAPP so that transactions are secure, confidentiality of the travelers is well protected and adequate security measures are taken. Hospitality managers and MOHOREAPP designers should design surveys in the mobile applications that measure satisfaction level, and fix problems caused by customer dissatisfaction to keep customers engaged. While designing and implementing the MOHOREAPP, mobile application service providers should focus on features where their customers can make check-in, manage the room key, use room service in the application to raise the convenience of the individual. MOHOREAPP that provide convenience to customers will increase customer loyalty (Tao et al., 2018). Hotels, third-party institutions, and mobile app developers should ensure that new changes and modifications introduced in the MOHOREAPP are consistent with the mobile existing application. Hotels have to reduce the user's perception of risk by providing up-to-date information to eliminate uncertainties in the MOHOREAPP and by establishing a system that will prevent unexpected problems while the user is making a hotel reservation.

This study has some limitations. First, the survey applied to analyze the data was conducted in Turkey and the results cannot be generalized to other countries. Future studies can examine the loyalty of consumers in different cultural backgrounds in MOHOREAPP. Second, since the survey was carried out in a single period, future research is recommended to be conducted to observe dynamic changes in the behavior of travelers. Third, proposed models of the future researches is suggested to include additional constructs such as privacy concern, innovativeness to examine the LOYA in the MOHOREAPP.

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