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Extending Technology Acceptance Model (TAM) to Investigate the Factors Affecting the Behavioral Intention of Internet Banking in Turkey

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Abstract

The purpose of this study is to investigate the factors affecting the behavioral intention of internet banking (I-BNKNG) in Turkey. In this study, users' adoption of I-BNKNG will be examined with Technology Acceptance Model and newly added variables. The data obtained from 441 I-BNKNG users by the survey method are analyzed with the structural equation model. According to the results of the study, perceived credibility, self-efficacy and compatibility affect perceived ease of use (PEA) and perceived usefulness (PUS). In addition, the study reveals both the relationship between PEA and PUS and the result that PEA and PUS impacts satisfaction. Finally, PEA, PUS and satisfaction are the main determinants of behavioral intention in I-BNKNG.

Keywords: ***Technology Acceptance Model, Internet Banking, Behavioral Intention.***

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1. INTRODUCTION

With the swift growth of the internet and communication technology led to the development of the internet usage. While 29% of the world's population was using the internet in 2010, this rate has increased approximately twice and reached 60% in 2020 (The World Bank, 2020). Likewise, while the ratio of people aged 16-74 and internet users to the population in Turkey in 2011 was 45.0%, this figure reached 82.6% in 2021 (TUIK, 2021). As the internet revolution has progressed considerably and internet usage is increasing rapidly, banks have altered the way that the services are being designed and presented. Internet banking has become an essential electronic service that banks offer their customers to get their banking business done online.

Internet banking (I-BNKNG) has drawn the attention of numerous banks as an alternative way to customary banking to deliver banking services. I-BNKNG refers to the execution of all bank's transactions made by the users wherever they are and whenever they want, regardless of night or weekend, with no limitations through a reliable web network managed by the bank (Bashir and Madhavaiah, 2014). I-BNKNG, where services are offered via the internet, provides many advantages to banks and its customers. Banks benefit by lowering operating costs with fewer personnel and fewer branches in service delivery, achieving faster transaction speed, retaining profitable customer, supporting customer relations, and widening market area thanks to I-BNKNG (Xue et al., 2011; Giovanis et al., 2012; Patel and Patel, 2018). By using the I-BNKNG, customers carry out their banking transactions such as paying off debts owed in the past, transfer of funds, and querying the account balances without time and place limitations and thus they benefit from the convenience, fast transaction and 7-days and 24-hours accessibility of I-BNKNG services (Giovanis et al., 2012).

Thanks to the benefits it presents to customers, the number of I-BNKNG users in the world is expanding day by day. While the number of I-BNKNG users in the world was 1.903 billion in 2020, this figure is projected to reach 2.551 billion in 2024 (Statista, 2022). In contrast, the number of active I-BNKNG customers who have logged in one time in the last 3 months in Turkey decreased from 19.07 million in December 2016 to 11.07 million in December 2020 (TBB, 2021). Although the rate of internet usage in Turkey is greater than that of most developing countries (The World Bank, 2020) and the quantity of registered customers that logged in I-BNKNG no less than once constitutes approximately 90% of the population (TBB, 2021), roughly 85 percent of the Turkish population does not actively use internet banking.

Since the number of people actively using I-BNKNG in Turkey is very low compared to the population, there is a need to realize Turkish users' acceptance of I-BNKNG. The Technology Acceptance Model (TAM) (Davis et al, 1989) provides the framework for the identifying the factors that can affect the user's intention to use I-BNKNG. TAM is specifically popular for its worthy predictive performance in a large collection of adoption of information technology contexts such as e-commerce (Fayad and Paper, 2015) and e-payment (Salloum and Al-Emran, 2018). As TAM seems to

be the most extensively acknowledged among researchers, they expanded TAM by adding many dimensions (Mansour, 2016; Kaur and Malik, 2019).

The objective of this study is to investigate the factors affecting the behavioral intention (BIN) of I-BNKNG in Turkey. This study takes TAM as theoretical model and integrates new variables into model to explain the I-BNKNG adoption more comprehensively. New constructs, perceived credibility (PCR), self-efficacy (SEF), compatibility (COM) and satisfaction (SAT), improve the understanding of a user's acceptance behavior of I-BNKNG. Although researchers in many different countries have studied the adoption of internet banking, no research adding PCR, SEF, COM, and SAT to TAM has been conducted. The study about I-BNKNG contributes to the literature in two ways. First, since there is lack of study that examines users' BIN to use I-BNKNG in Turkey, study endeavors to fill up this gap by extending TAM. Second, study examines the interrelationship among TAM, PCR, SEF, COM and SAT in a single acceptance of I-BNKNG framework. Thus, this study raises the subsequent questions: what are the determinants of BIN of I-BNKNG? What factors have the greatest effect on BIN?

2. LITERATURE REVIEW

2.1. Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM), an adaptation of the theory of reasoned action (TRA) by Fishbein and Ajzen (1975), explains and predicts user's behavior intention towards information systems (Davis, 1989). The primary point of the TAM is to illustrate the external factors influencing user's BIN to predict the acceptance of the information technology. The TAM contains five variables: perceived usefulness (PUS), perceived ease of use (PEA), attitude toward use, BIN, and actual use (AUS) (Davis, 1989). The model says that AUS is influenced by the BIN, that is in turn determined by the attitude and the PUS. Besides, PUS and PEA affects attitude, and PEA directly influences PUS.

Previous studies have employed the TAM as theoretical model in the context of the I-BNKNG adoption (George and Kumar, 2013; Wang et al., 2013; Lin et al., 2015; Mansour, 2016; Abd Ghani et al., 2017; Marakarkandy et al., 2017; Samar et al., 2017; Patel and Patel, 2018). Pikkarainen et al. (2004) examined online banking acceptance by extending TAM and found that PUS and information on I-BNKNG's web site were the major constructs affecting acceptance of I-BNKNG. AlKailani (2016) examined the adoption of I-BNKNG in Jordan by extending TAM and found that PEA, PUS, bank credibility, perceived risk, and perceived trust influences attitudes. Samar et al. (2017) investigated factors impacting on Pakistani users' BIN to adopt I-BNKNG. The results indicated that PUS, PEA, and attitude were the main constructs for raising I-BNKNG usage. Kaur and Malik (2019) integrated electronic service quality to TAM and examined the factors influencing Indian Customers' intentions. They found that PUS and electronic service quality impact BIN to use I-BNKNG.

Although the validity of the TAM was proven by many studies, TAM constructs explain less than 45% of BIN (Venkatesh et al., 2003; Celik, 2008; Mansour, 2016). Thus, it is suggested to add

other constructs into TAM to solve the problem. Because of this reason researchers extended TAM by adding new constructs to the model. Venkatesh and Davis (2000) purported the augmentation of TAM by conjoining social influence and cognition. Recent studies about TAM on I-BNKNG found that SEF (Wang et al., 2003; Marakarkandy et al., 2017), COM (Giovanis et al., 2012), PCR (Lin et al., 2015), SAT (Abd Ghani et al., 2018), perceived security (Patel and Patel, 2018), perceived risk (Lee, 2009; Marakarkandy et al., 2017), perceived benefit (Lee, 2009), and social influence (Patel and Patel, 2018) have direct or indirect impact on TAM variables.

As Davis (1989) found that PUS weakly influences the attitude, attitude variable was excluded from theorical model of TAM (Venkatesh, 1999; Venkatesh et al., 2003). Based on this reason attitude was dropped from model of the study due to the weak link between perceived usefulness and attitude (McFarland and Hamilton, 2006).

2.2. Perceived Credibility (PCR)

Doney and Cannon (1997) described trust as the PCR and unmalicious of a target of confidence. Ganesan (1994) defined PCR as "the extent to which one partner believes that the other partner has the required expertise to perform the job effectively and reliably". Wang and Emurian (2005) described the PCR as the belief that the service suppliers have the required knowledge to carry out their work efficiently. Aderonke (2010) employed extended TAM and determine users' BIN to use I-BNKNG systems in Nigeria. The result showed that PCR had a significant relationship with PUS and consumer attitude. Santouridis and Kyritsi (2014) investigated the determinants of I-BNKNG adoption in Greek users and found that PCR has influence on BIN. AlKailani (2016) examined the users' adoption in I-BNKNG by extending the TAM. The results showed that PCR has a significantly positive influence on the attitude to use I-BNKNG.

2.3. Self-efficacy (SEF)

Compeau and Higgins (1995) described computer SEF as "A judgment of one's ability to use a computer". Computer SEF has been studied within the scope of the information system (Compeau and Higgins, 1995; Compeau et al., 1999). Wang et al. (2003) identified the determinants of I-BNKNG 's user acceptance and effect of SEF on the BIN by employing TAM. They light on information that computer SEF has a positive effect on PUS, PEA and have a negative effect on PCR of the I-BNKNG. Alalwan et al. (2015) investigated the factors predicting BIN and adoption of I-BNKNG in Jordan. They found that trust and BIN were strongly impacted by SEF.

2.4. Compatibility (COM)

Rogers (1995) defined COM as "the degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters". Thus, if the user consider that internet banking is in harmony with their existing thoughts, it will be easier for the person to switch from branch banking to I-BNKNG. Innovation diffusion theory suggests that one of the five innovation

characteristics of a new technology's adoption rate is compatibility (Rogers, 1995). From the other two constructs of innovation diffusion theory, relative advantage, complexity and PUS, PEA constructs are parallel, respectively (Moore and Benbasat, 1991). Therefore, since TAM and innovation diffusion theory reconfirm their findings, the only crucial innovation feature that is not included in TAM is COM (Giovanis et al., 2012). Chen et al. (2002) added COM construct into TAM to describe online consumer acceptance of virtual store. Boateng et al. (2016) evaluate the determinants of I-BNKNG adoption BIN by social cognitive theory and they found that COM with lifestyle has a meaningful effect on users' intentions to adopt I-BNKNG. Wessels and Drennan (2010) identified and tested the key determinants for user acceptance of banking in mobile phones and found that COM positively influences attitude toward mobile phone banking and BIN of individual.

2.5. Satisfaction (SAT)

Oliver (1981) defined SAT as "the psychological or emotional state resulting from a cognitive assessment of the gap between the expectations and the actual performance of an information system". Because TAM has variables related to perceptions rather than variables related to emotions and psychology, SAT which is an emotional response of the user is added to the model. Raza et al. (2015) concluded the impacts of service quality dimensions on customer SAT in I-BNKNG and they found that there is a significant positive link between self-assurance, tangibility, reliability, and sensitivity with customer SAT within the context of I-BNKNG. Ling et al. (2016) examined the factors which affect customer SAT towards I-BNKNG and they proved the significant influence of service quality, technical and security-related attributes of the website on SAT.

3. RESEARCH MODEL AND HYPOTHESES

3.1. PCR

PCR is the extent to which individual considers that the other partner has the necessary skill and knowledge to carry out the job efficiently and reliably (Gefen, 2002). In the study PCR refers to the user's perception that internet banks' provider has required expertise to perform the bank transactions successfully and consistently. The results of previous studies in internet banking have suggested that behavioral intention (Wang et al., 2003; Santouridis and Kyritsi, 2014) or attitude (Aderonke, 2010; AlKailani, 2016) is influenced by PCR. Internet bank user who views their banks as credible and reliable will adopt the internet banking system easily. Besides, Lin et al. (2015) confirmed that perceived credibility positively affected PUS and PEA in I-BNKNG. Thus, study hypothesizes that PCR will have a positive effect on PUS and PEA.

H1a: Perceived credibility positively influences perceived ease of use.

H1b: Perceived credibility positively influences perceived usefulness.

3.2. SEF

SEF is defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986). In the context of I-BNKNG earlier studies found that SEF has a positive impact on BIN (AbuShanab et al., 2010; Alalwan et al., 2015). SEF can also contribute to behavioral intention indirectly by shaping of the users' beliefs such as PUS and PEA. Previous studies suggested that SEF had direct and positive effect on PUS (Wang et al., 2003; Aderonke, 2010; Ariff et al., 2012; Sentosa et al., 2012; Ariff et al., 2013; Hussain Chandio et al., 2013) and PEA (Wang et al., 2003; Ariff et al., 2012; Sentosa et al., 2012; Ariff et al., 2013; Hussain Chandio et al., 2013; Marakarkandy et al., 2017). Thus, consistent with prior research, it is hypothesized as follows:

H2a: Self-efficacy positively influences perceived ease of use.

H2b: Self-efficacy positively influences perceived usefulness.

3.3. COM

Hernandez and Mazzon (2007) indicate that COM refers to "the degree to which people perceive that a certain technology is well-matched with the way they think and act". In this study COM refers to the condition in which users perceive a product or service as related to their actions, attitudes, and ways of thinking. Wessels and Drennan (2010) investigating the consumer acceptance of mobile banking (M-BNKNG) found that COM significantly affects the M-BNKNG'S adoption. Oh et al. (2003) concluded that the users do not adopt the new technological services simply due to it is compatibility with the users' existing values. COM has a significant effect on PUS and PEA within the context of I-BNKNG (Giovanis et al., 2012) and M-BNKNG (Hanafizadeh et al., 2014; Mohammadi, 2015). Increasing COM of the I-BNKNG, improves users' tendency to see I-BNKNG as a handy and effortless to use service. Therefore, the following COM's hypotheses are to be tested:

H3a: Compatibility positively influences perceived ease of use.

H3b: Compatibility positively influences perceived usefulness.

3.4. PEA

PEA was defined as "the degree to which a person believes that using a system would be free of effort" (Davis, 1989). In this study, PEA reflects the individual's assessment of how simple it is to use I-BNKNG. One of the important relationships of TAM is positive correlation between PEA and PUS. Venkatesh and Davis (2000) suggested that a technology will be handier provided that it is easier to use. Many studies concluded that PEA had a positive and significant influence on PUS in I-BNKNG (Giovanis et al., 2012; Lin et al., 2015; Mansour, 2016; Samar et al., 2017). Besides, PEA has a direct and positive relationship with SAT in I-BNKNG (George and Kumar, 2013; Abd Ghani et al., 2017) and in mobile shopping (Agrebi and Jallais, 2015; Natarajan et al., 2017). Pires et al. (2011), Giovanis

et al. (2012), Santouridis and Kyritsi (2014), Patel and Patel (2018) found that PEA influences BIN in I-BNKNG Therefore, the following PEA hypotheses are proposed:

H4a: Perceived ease of use positively influences perceived usefulness.

H4b: Perceived ease of use positively influences satisfaction.

H4c: Perceived ease of use positively influences behavioral intention.

3.5. PUS

PUS, one of the primary variables in TAM, is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989). In I-BNKNG context, PUS could be transactions that enhances performance, save time and raise efficiency of the services. The literature shows that PUS has significant effect on SAT in the I-BNKNG (George and Kumar, 2013; Abd Ghani et al., 2017) and in the M-BNKNG (Yuan et al., 2016). Besides, Yaghoubi and Bahmani (2010), Giovanis et al. (2012), Santouridis and Kyritsi (2014); Mansour (2016), Patel and Patel (2018) found that PUS influences BIN in I-BNKNG. Hence the following PUS hypotheses can be tested in I-BNKNG.

H5a: Perceived usefulness positively influences satisfaction.

H5b: Perceived usefulness positively influences behavioral intention.

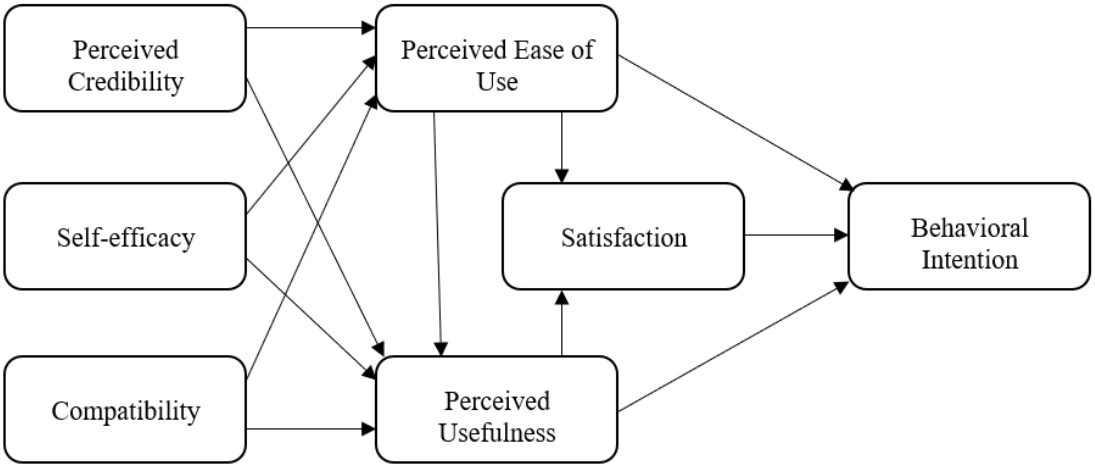
3.6. SAT

Crosby et al. (1990) described SAT as an "emotional state that occurs in response to the evaluation of interaction experiences" in a service framework. In the literature, BIN has been affected by SAT within the context of mobile shopping (Yuan et al., 2016) and online airline tickets (Bukhari et al., 2013). Abd Ghani et al. (2017) confirmed that SAT is a significant determinant affecting BIN to use I-BNKNG. If the performance of the I-BNKNG meets the expectations of the users, the BIN of the user will rise. The following SAT hypothesis is proposed based upon the above:

H6: Satisfaction positively influences behavioral intention.

Based on these research hypotheses, the research model, that aims to investigate the I-BNKNG adoption in Turkey, is shown in Figure 1.

Figure 1. Proposed Model



4. METHODOLOGY

4.1. Data Collection and Sampling

The sample population of the study included any person who lives in Ankara, the capital of Turkey, uses internet and has at least one internet banking account. As the effort in acquiring a comprehensive sample, convenience sampling method was used for data collection due to its cost-effective way. A pre-test was conducted before performing the final and formal survey. After minor changes were made with the advice of the experts in the pre-test phase, the final questionnaire was ready.

This study is relevant only for users who has an earlier experience with I-BNKNG. The survey was conducted to the respondents who had prior familiarity with I-BNKNG. The data was collected in the month of September 2022. For the study, ethics committee permission document dated September 14, 2022 and numbered 2022/7 was obtained from the Ankara Science University Ethics Committee. A total of 500 responses was obtained for the duration of the data collection period. Out of 500 respondents, 59 were incomplete. 441 complete and valid responses from I-BNKNG's user were ready for analysis. Yazıcıoğlu and Erdoğan (2004) stated that the sample size of 384 would be sufficient for a population of 10 million at a significance level of 0.05. Kline (2001) declared 5 or 10 observations per estimated parameter for minimum sample size. As the questionnaire of the study has 23 items, sample size of the study is adequate for further analysis.

Out of 441 respondents, 37.19 percent respondents were female and 62.81 percent were male. 26.98% of respondents were ages between 18 and 28 years old, 27.89 percent of respondents were between 29-39 years of age, 30.16% of respondents between 40-49 years old, and 14.97% of respondents were above 50 years old. Moreover, respondents stated that they have been using internet banking for less than 1 year (10.66%), followed by one to three years (17.23%), for three to five years (31.97%), above five years (40.14%). Finally, the education levels of respondents were 11.56% below high school, 29.71% high school, 45.80% university, and 12.93% master and PhD.

4.2. Measures

A questionnaire was employed to collect data from Turkish users of I-BNKNG. The survey instrument which examines the relationship between PCR, SEF, COM, PEA, PUS, SAT, BIN comprised 23 items which were measured using a seven-point Likert-type scale anchored from "1 (strongly disagree)" to "7 (strongly agree)". The first part of questionnaire was used to gather demographic profile of the respondent and the second part of questionnaire was elaborated based on the PCR, SEF, COM, PEA, PUS, SAT, BIN constructs.

PCR, owning three items, was adapted from Cheng and Lee (2000). Three items for SEF were adapted from Compeau and Higgins (1995). Three items relating to COM was taken from Moore and Benbasat (1991) and Tan and Teo (2000). The scales for measuring PEA and PUS were adapted from Cheng et al. (2006). SAT containing four items were adapted from Bhattacherjee (2001). Finally, BIN was adopted from Davis (1989) and included three items.

5. RESULTS

In the study, the measurement model, which examines the validity and reliablity of the PCR, SEF, COM, PEA, PUS, SAT, BIN constructs in the first stage, and the structural model, which examines the relationships between these variables, were examined in the second stage according to the suggestion of Anderson and Gerbing (1988).

5.1. Measurement Model

Confirmatory factor analysis was carried out to evaluate the measurement model by using AMOS 24. Based upon the goodness of fit measures such as CMIN=281.060, CMIN/DF=1.345, GFI=0.950, AGFI=0.933, NFI=0.964, CFI=0.990, RMSEA=0.028, study demonstrated that the measurement model including PCR, SEF, COM, PEA, PUS, SAT, BIN constructs exhibited a good fit with the data of users using I-BNKNG (Hair et al., 2010).

To establish convergent validity, three common approaches were followed: each standardized factor loadings were significant and above 0.5, all average variance extracted (AVE) values were 0.5 or higher, and composite reliabilities (CR) were 0.7 or greater (Hair et al., 2010). As shown in Table 1, all standardized factor loadings are significant at $p<0.001$ and ranged from 0.680 to 0.978, AVE values ranged between 0.566-0.846 and CR values ranged between 0.795-0.950. Thus, all factors in the measurement model have convergent validity. Cronbach's Alpha values of PCR, SEF, COM, PEA, PUS, SAT, BIN constructs are larger than 0.7, demonstrating a satisfactory reliability (Nunnally, 1978).

According to criteria of study of Fornell and Larcker (1981) regarding discriminant validity, which considers the correlations between PCR, SEF, COM, PEA, PUS, SAT, BIN constructs and the square root of the AVE values within a construct. As shown in Table 2, pairs of the correlation are less than the AVE square roots of corresponding PCR, SEF, COM, PEA, PUS, SAT, BIN constructs.

Table 1. Reliability and Validity Measures

Construct	Item	Factor Loading	Cronbach's Alpha	CR	AVE
Perceived Credibility	PCR1	0.855	0.937	0.939	0.837
	PCR2	0.978			
	PCR3	0.909			
Self-efficacy	SEF1	0.747	0.887	0.890	0.731
	SEF2	0.913			
	SEF3	0.896			
Compatibility	COM1	0.865	0.880	0.881	0.712
	COM2	0.863			
	COM3	0.802			
Perceived Ease of Use	PEA3	0.770	0.792	0.795	0.566
	PEA2	0.802			
	PEA1	0.680			
Perceived Usefulness	PUS1	0.856	0.950	0.950	0.828
	PUS2	0.960			
	PUS3	0.952			
	PUS4	0.868			
Satisfaction	SAT4	0.715	0.860	0.867	0.622
	SAT3	0.831			
	SAT2	0.898			
	SAT1	0.695			
Behavioral Intention	BIN1	0.873	0.940	0.942	0.846
	BIN2	0.969			
	BIN3	0.915			

Table 2. Discriminant Validity of Measurement Model

Construct	PCR	SEF	COM	PEA	PUS	SAT	BIN
PCR	*0.914*						
SEF	0.140	*0.854*					
COM	0.121	0.100	*0.843*				
PEA	0.213	0.195	0.211	*0.752*			
PUS	0.185	0.239	0.258	0.236	*0.909*		
SAT	0.080	0.194	0.151	0.204	0.274	*0.788*	
BIN	0.211	0.298	0.310	0.364	0.387	0.319	*0.919*

Note: Figures in italic denotes square root of the AVE

5.2. Structural Model

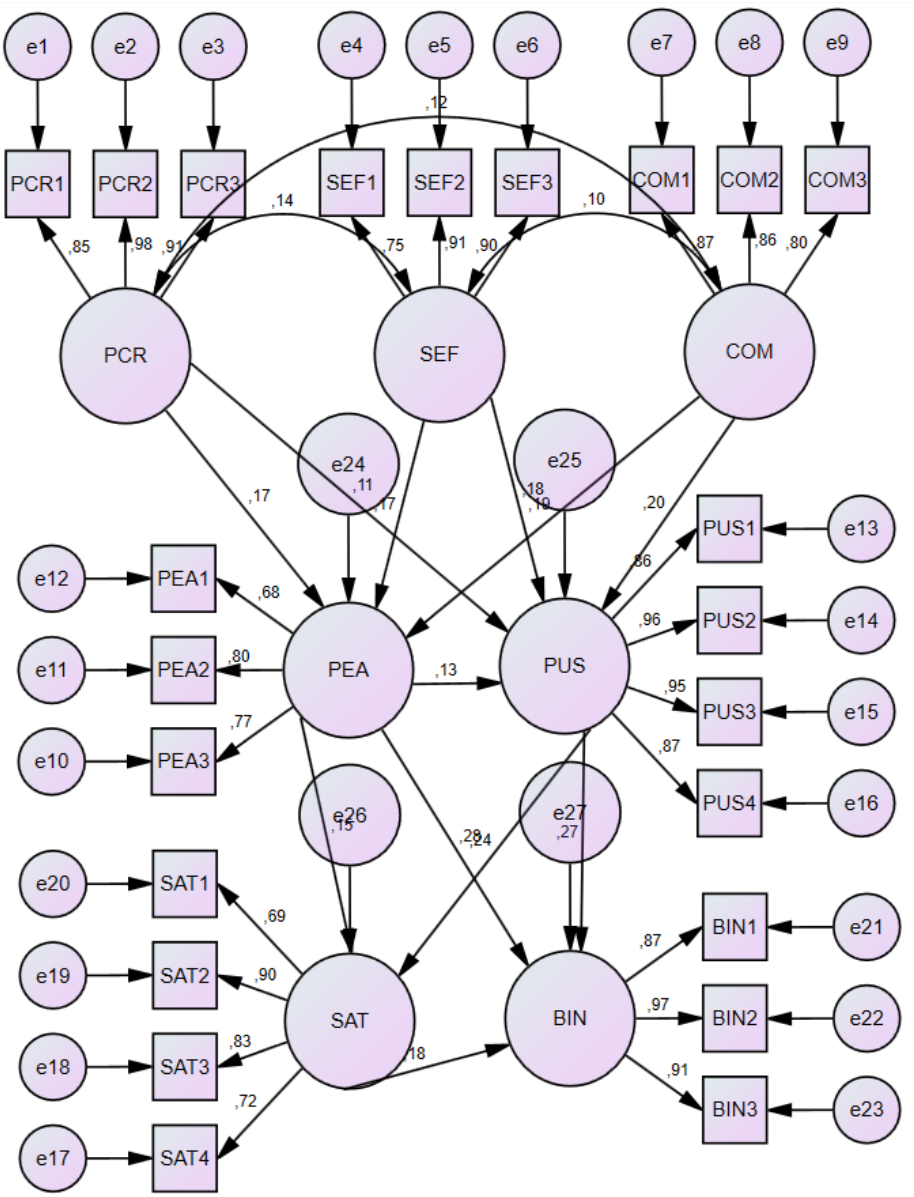
Structure model was estimated to analyze the research hypotheses. The analysis in AMOS indicates that the fit indices meet the acceptance thresholds (CMIN=314.853, CMIN/DF=1.464, GFI=0.944, AGFI=0.928, NFI=0.959, CFI=0.987, RMSEA=0.032).

In Table 3, findings of hypotheses testing associated with PCR, SEF, COM, PEA, PUS, SAT, BIN are presented. PEA was predicted by PCR ($\beta_{PCR-PEA}$=0.174, p=0.001), SEF ($\beta_{SEF-PEA}$=0.168, p=0.002), COM ($\beta_{COM-PEA}$=0.189, p=0.000) and PUS was predicted by PCR ($\beta_{PCR-PUS}$=0.108, p=0.024), SEF ($\beta_{SEF-PUS}$=0.180, p=0.000), COM ($\beta_{COM-PUS}$=0.201, p=0.000). As a result, hypotheses 1a, 1b, 2a, 2b, 3a, 3b were all supported. Also, PEA significantly affected PUS ($\beta_{PEA-PUS}$=0.129, p=0.020) and SAT was significantly affected by PEA ($\beta_{PEA-SAT}$=0.154, p=0.007) and PUS ($\beta_{PUS-SAT}$=0.239, p=0.000). Therefore, hypotheses 4a, 4b, and 5a were all confirmed. Besides, PEA ($\beta_{PEA-BIN}$=0.276, p=0.000), PUS ($\beta_{PUS-BIN}$=0.273, p=0.000) and SAT ($\beta_{SAT-BIN}$=0.185, p=0.000) had a positive effect on users' BIN to use the I-BNKNG systems. Hypotheses H4c, H5b and H6 were also supported.

Table 3. Results of Hypotheses Testing

Hypothesis	Relationship	Path coefficient	t-value	p-value	Result
H1a	PCR -> PEA	0.174	3.274	0.001	Supported
H1b	PCR -> PUS	0.108	2.254	0.024	Supported
H2a	SEF -> PEA	0.168	3.068	0.002	Supported
H2b	SEF -> PUS	0.180	3.599	0.000	Supported
H3a	COM -> PEA	0.189	3.413	0.000	Supported
H3b	COM -> PUS	0.201	3.957	0.000	Supported
H4a	PEA -> PUS	0.129	2.334	0.020	Supported
H4b	PEA -> SAT	0.154	2.713	0.007	Supported
H4c	PEA -> BIN	0.276	5.305	0.000	Supported
H5a	PUS -> SAT	0.239	4.536	0.000	Supported
H5b	PUS -> BIN	0.273	5.748	0.000	Supported
H6	SAT -> BIN	0.185	3.778	0.000	Supported

Figure 2. Structural Model



6. DISCUSSION

Study aims to understand the factors influencing I-BNKNG adoption in Turkey by extending TAM. Moreover, the study has also provided evidence the validity and practicability of the TAM model in the specialized domain of I-BNKNG. Using the TAM, the study employed perceived credibility, self-efficacy, compatibility as an external variables and satisfaction to expand users' internet banking adoption behavior.

PCR is found to influence PEA and PUS which confirms the studies carried out by Lin et al. (2015). When the users entrust I-BNKNG's services to shield their privacy, their PEA and PUS of the I-BNKNG systems will rise. The users' trust in the I-BNKNG systems secure while conducting their banking transaction causes people to think that I-BNKNG would be easy and useful.

SEF is identified as a factor of PEA verifying the studies conducted by Ariff et al. (2013), Hussain Chandio et al. (2013), Marakarkandy et al. (2017). Being able to call someone for support when someone got stuck makes it easy to use I-BNKNG to perform user's banking tasks. Besides, SEF has effect on PUS. This is consistent with earlier findings by Sentosa et al. (2012), Ariff et al. (2013), Hussain Chandio et al. (2013). Carrying out I-BNKNG transactions by only looking at the system manuals brings about the user to think that banking is beneficial.

COM exhibits a significant effect on PEA and PUS. This result supports previous finding by Giovanis et al. (2012) within the context of I-BNKNG. When the I-BNKNG is compatible with the users' lifestyle, people won't put much mental effort with the interaction of the I-BNKNG. Moreover, if the I-BNKNG fits into people working style, they will believe that using the I-BNKNG would make it simpler for them to do their banking's tasks.

PEA emerges as direct factor to influence PUS. These findings also support prior I-BNKNG researches regarding PEA and PUS association (Lin et al., 2015; Mansour, 2016; Samar et al., 2017). If the users think that using I-BNKNG to accomplish their banking tasks is easy, people will perceive that employing the I-BNKNG is advantageous. Furthermore, the study implies that PEA is predictor of SAT, which is consistent with I-BNKNG's previous studies (George and Kumar, 2013; Abd Ghani et al., 2017). Besides, the finding shows that PEA significantly influences BIN with the context of I-BNKNG. This finding is also supported by the results of prior I-BNKNG research (Santouridis and Kyritsi, 2014; Patel and Patel, 2018). If the user's thought is that using I-BNKNG is easy, the user will be satisfied with their decision to use I-BNKNG and their BIN to get through banking transaction will rise.

Another finding of this study is that PUS has a significant positive impact on SAT. Similar findings were obtained by George and Kumar (2013) and Abd Ghani et al. (2017) whose studies are about the acceptance of I-BNKNG. When the users believe that using the I-BNKNG would make it uncomplicated for them to carry out their tasks, they will be delighted with their earlier decision to use I-BNKNG services. Besides, an additional outcome of this research is that PUS exerts a significant positive impact on customers' BIN. This result is not unlike the findings reported in Mansour (2016), Patel and Patel (2018). The thought that internet banking causes the user to do their work quicker lead to the person to use I-BNKNG on a regular basis.

Finally, finding reveals that SAT has a significant influence on BIN to adopt in I-BNKNG. This SAT – BIN association is also supported by the results of prior I-BNKNG research by Abd Ghani et al. (2017). If the users' experience while using the I-BNKNG is very satisfactory, the user will strongly mention about banks' I-BNKNG website to others.

7. IMPLICATIONS, LIMITATIONS AND DIRECTION FOR FUTURE RESEARCH

In terms of theory building, the study attempts to develop a model, representing the TAM by adding new constructs. An extended TAM, which is proposed by adding PCR, SEF, COM as an external

variables and employing SAT, can assist to more noticeably identify the factors contributing to the effective adoption of I-BNKNG. It is essential to mention that the four new variables – PCR, SEF, COM, and SAT – are harmonious with the TAM variables. Therefore, the proposed model makes a valuable contribution to the developing literature on I-BNKNG.

Apart from theoretical contributions, the results of this study will help the practitioners, I-BNKNG system developers and I-BNKNG service providers. First, although PCR, SEF and COM have a significant impact on PEA and PUS, study reveals that the COM is a more powerful construct, inferring that users' perceived COM is more significant than PCR and SEF. Banking system developers should design the I-BNKNG system to be compatible with users' lifestyles. I-BNKNG service providers have to offer services in a way that fits the banking users' working styles. Second, bank providers should focus on providing security measures so that users can rely on secure in internet banking systems when performing their banking transactions. Bank providers must take precautions such as establishing secure firewalls in order to prevent intrusion, extending methods for fortification the encryption, and authenticating their systems so as to obstruct fraud (Lee, 2009). Similarly, banks ought to train their customers regarding such safety measures and policies of I-BNKNG functions (Singh, 2019). Third, with the system that I-BNKNG system developers designed, users of I-BNKNG should be able to find I-BNKNG responsive and useful, and thus users will start to value more than traditional banking and will use I-BNKNG on their regular basis. The results of the study will allow banks to develop their marketing strategies more effectively by focusing on the factors that significantly impact BIN of I-BNKNG.

The limitation of study as in previous studies is that the sample consists of individuals using the I-BNKNG in Turkey. Future researchers can test model of the study across different countries and cultures. Future studies may employ other additional external variables into TAM so that this will provide both the advancement of a more comprehensive model and the validation of the present research results. Future studies are suggested to use longitudinal survey because users' opinions and preferences about I-BNKNG they use will alter over time.

For the study, ethics committee permission document dated September 14, 2022 and numbered 2022/7 was obtained from the Ankara Science University Ethics Committee.

The study has been crafted in adherence to the principles of research and publication ethics.

The author declares that there exists no financial conflict of interest involving any institution, organization, or individual(s) associated with the article.

The entire work of the study was carried out by its only, stated author.

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