# Exploring the Malaysian University Students Acceptance for Mobile Banking

 $\textbf{Article} \ \ \textit{in} \ \ \textbf{International Journal of Management and Business} \cdot \textbf{June 2018}$ CITATIONS READS 0 133 2 authors: Omar Alaeddin Rana Altounjy University of Kuala Lumpur University of Kuala Lumpur 24 PUBLICATIONS 43 CITATIONS 12 PUBLICATIONS 9 CITATIONS SEE PROFILE SEE PROFILE Some of the authors of this publication are also working on these related projects: INVESTIGATING THE COMPETITION-STABILITY RELATIONSHIP IN DUAL BANKING SYSTEM View project Antecedents and Consequences of Individuals' Attitude and the Moderating Role of Service Quality in Adoption of Islamic Banking Services from Malaysian Perspective View project

# **Exploring the Malaysian' University Students Acceptance** for Mobile Banking

<sup>1</sup>Alaeddin O., <sup>2</sup>Altounjy R., <sup>3</sup>Kantakji M., <sup>4</sup>Ruhoma A., <sup>5</sup>Gharib S., <sup>6</sup>Alnahhas M.

1,2,3,4,5,6 Universiti Kuala Lumpur, Business School; Malaysia corresponding author: <a href="mailto:rana.altounjy@s.unikl.edu.my">rana.altounjy@s.unikl.edu.my</a>

Received: 29 April 2018 Accepted: 22 May 2018

Abstract The 21<sup>st</sup> century has been known as the era of technology due to the industrial revolution which been leaded by the technology. As Malaysia by the end of 2017 reached to 20 million smartphone users, and while over than 1 million of the population are university students this study aims to explore the factors effect on the acceptance level of the Mobile Banking among Malaysian' university students. Findings of this study would guide the Mobile Banking providers towards the key factors which can boost the acceptance rate among the targeted respondents. The hypothesized relationships adapted from the Technology Acceptance Model (TAM) and tested within the setting of Mobile Banking acceptance. Testing the hypothesis of this research statistically done through the Structural Equation modelling of questioner data been collected from 115 Malaysian university students. The results show that TAM is applicable to test the Mobile Banking acceptance level among Malaysian university students. additionally, this paper contributed a model to understand and distinguish the method in which potential key factors can explain the deviation in Mobile Banking acceptance. For practitioners, the features which particularly attract users of Mobile Banking are listed by this framework. Perceived usefulness, subjective norms and perceived self-expressiveness found to have significant relationship with the acceptance of Mobile Banking among Malaysian university students.

Keywords: Mobile banking, Technology Acceptance Model, Malaysia.

## 1. INTRODUCTION

In modern lifestyle, the internet takes an essential role, which gives a big future for internet banking. Especially with smartphones trend, it is fluid and handy for anyone to use internet banking and make his transactions by his mobile (Lee, Cheung, & Chen, 2007). Mobile banking is the newest form of internet banking that offer many benefits, which eventually help

to expand the banking market. In addition, mobile technologies with its huge number of users are simply able to give a hand to mobile banking service providers to enhance young adults' adoption of their services.

The importance of serving the young adults' needs comes from expecting them to be future adopters and users of mbanking (Narayanasamy, Rasiah, & Tan,

2011). Consequently, Malaysian banks are moving towards applying technological strategies to have the upper hand in the market. This technological movement can boost the acceptance of the products and services provided by the banks in near future. In order to overcome the competitive environment in the banking industry, banks are utilizing different innovative technological strategies to offer more competitive services comparing to the other banks in the market (Bae & Lee, 2011; Yang, 2009).

The mobile banking services have been introduced in Malaysia from quite a long time. On the other hand, the acceptance of mobile banking was slow because of various obstacles as high costs, limitations in obtaining handsets, substandard quality of service, and technological limitations (Dewan & others, 2010). Over time, these obstacles have been greatly reduced due to the rapid progress in mobile industry, and fast development of wireless technologies. Moreover, the consumer's life style has been shifted to be heavy mobile' dependency.

In light of the current developments in the mobile banking industry, it's necessary to do more research about the acceptance of mobile banking services in the current settings (Nel & Raleting, 2012). Hence in this study, we are going to inspect the students' behaviour towards accepting these services in aim to design new strategies which can enhance the techno generation' acceptance, satisfaction and trustworthiness

# 2. REVIEW OF LITERATURE

# 2.1. Mobile banking and services

The mobile banking has been characterized by Mallat, Rossi, Tuunainen, & Oorni, in their paper which published at 2006 as the accessibility to the banking services (cash transfer, cheque book requests, account balance, reloads, etc.) through gadgets using mobile telecommunication system like cell phones. As mobile banking

services have been introduced to the market, many researches were managed to investigate the factors that influence the customers' acceptance of this services. (Kleijnen, Wetzels, & de Ruyter, 2004; Luarn & Lin, 2005; Suoranta & Mattila, 2004).

Most of the previous researches which studied the acceptance of the Internet banking services utilized the technology acceptance model (TAM) and found the perceived usefulness (PU) gathered with the ease of use (EU) are the best indicators of acceptance intention (Kleijnen et al., 2004; Leung & Wei, 2000). Additionally, social impact, initial trust, innovativeness, perceived credibility (PC), were found to impact acceptance intentions positively, while perceived risk and cost found to be negatively connected with acceptance of mobile banking (Abdul Hadi, Hussain, Survanto, & Yap, 2018; Hussain et al., 2018; Kim, Shin, & Lee, 2009; Kleijnen et al., 2004; Luarn & Lin, 2005; Suoranta & Mattila, 2004; Yang, 2009; Zarmpou, Saprikis, Markos, & Vlachopoulou, 2012). Furthermore, acceptance intention has been found to increment among more youthful grown-ups under 25 years of age (Suoranta & Mattila, 2004).

# 2.2. The technology acceptance among students

In their study for the students impact into the software use at 2002, Venkatesh, Speier, & Morris applied the Technology Acceptance Model, and found usefulness is the usefulness as a key factor in choosing to utilize software while others see usability is the main factor in shaping their preferences. Additionally, at 2007 Amin, applied similar model to investigate the acceptance of the SMS banking service and found that the subjective norms and ease of use have significant effect into students' decision to utilize SMS banking, contrariwise, perceived system quality and usefulness are the imperative determinants for utilizing SMS banking among other students.

Other study has been conducted in Singapore to investigate the factors significantly affect into the adoption decision among students for the mobile banking services, this study got same results of Amin (2007) as it contributed that the subjective norms and ease of use are the main factors to predict students' behaviour towards mobile banking adoption. Furthermore. study this confirmed the ability of the technology acceptance model to investigate the factors affecting students' behaviour towards technology adoption (Riquelme & Rios, 2010; Kamarudin et al., 2018).

In terms of internet and mobile banking' acceptance among young generations many studies have been published from early stages of offering this type of services, as Wan, Luk, & Chow (2005) in their paper found that the acceptance of Internet banking was distinguished to be elevated among most the middle adulthood, however lower for more youthful or older customers. Whereby, mobile banking was not highly embraced by all age groups but rather was utilized more of the time by clients in their middle or mature adulthood. Moreover, as per reported by Malaysian Communications and Multimedia Commission (MCMC) in 2017 the financial activities occupied 41.7% of the total online activities which 89.4% of it done through mobile phones. Additionally, the MCMC mentioned in their report that 53.6% of the internet users are in age range (20-34) years old which comprising of universities students (undergraduate postgraduate). and (MCMC, 2017).

## 2.3. The research model and hypotheses

The Technology Acceptance Model has been broadly applied as the main structure to figure out the factors that significantly affect the acceptance of different technologies (Alaeddin, Altounjy, Zainudin, & Kamarudin, 2018; Dewan & others, 2010; Lai, 2004; Lee et al., 2007; Park & Chen, 2007; Zarmpou et al., 2012;

Masrek, et.al. 2018). Regardless its wide usage, the TAM model is still questionable, despite of its successive utilize.

The significance effect of the social factors into the technology acceptance has been contributed by many researches which used the TAM in their study, as Chen & Lai, (2010) research stated the TAM model is insufficient without considering the social factors. Equivalent results been Thakur (2013)found bv investigating the factors influence the mobile payment adoption. In addition to the social norms the quality of service been found to have significant impact onto the perception about new technologies (Garg & Garg, 2013).

For current research (Figure 1) portrays the research model, which was adapted from the original TAM model created by Davis (1989). The model studies the relationship between perceived financial cost (PFC), perceived usefulness (PU), social norms (SN), perceived credibility (PC), perceived self-expressiveness (PSE) and behavioural intention to use (BI) the Mobile Banking

#### 2.4. Perceived financial cost

The Perceived financial cost is the degree of believes among the individuals that mobile banking will create more cost comparing to the traditional way (Luarn & Lin, 2005). Beside the perceived usefulness, economic motivation is known as vital factor effects the client acceptance. A research at the UMS Sabah about ofbanking students' views **SMS** distinguished that cost and time are significant factors among students (Amin, Lada, Hamid, & Tanakinjal, 2005). Based on the above mentioned the following hypothesis been hypothesised:

**H1.** Perceived financial cost (PFC) has a negative significant effect on behavioural intention to use mobile banking.

#### 2.5. Perceived usefulness

As per (Viswanath & Morris, 2000) students tend to show more usage and effected by the new technologies than others. Additionally Amin (2007) in his paper found that while the Mobile services are task-oriented then the impact of perceived usefulness on students behavioural intention might be higher than for others. The following hypothesis been used:

**H2.** Behavioural intention (BI) to accept mobile banking is influenced positively by Perceived usefulness (PU).

#### 2.6. Subjective norms

In a study conducted by Amin (2007) about SMS banking acceptance in Malaysia, it was demonstrated that subjective norms affected the intention to use SMS banking more firmly among students. This result is compatible with the theory of reasoned action (TRA), based on this theory the individual' intention is

#### 2.8. Perceived self-expressiveness

Self-expressiveness is seen as significance of social expression and selfrecognizable proof. It is particularly essential to youthful adults (students) as their self-characters and personality are exceedingly reflected by their choices and adoption decisions (Goldgehn, 2004). Nysveen, Pedersen, & Thorbjørnsen (2005) in their research were among the initial studies which fuse perceived selfexpressiveness into the TAM model within the field of technology acceptance, they also studied its impact on the acceptance of mobile services. Through this research, they found a positive relationship between PEX and customer acceptance intentions. Consequently, we hypothesise that:

**H5.** Behavioural intention to accept mobile banking will be positively influenced by Perceived self-expressiveness (PEX).

#### 3. METHODOLOGY

effected by the combination of behavioural attitude and the subjective norms. (Fishbein & Ajzen, 1975). Henceforth the hypothesise here is as follow:

**H3.** Behavioural intention to accept the mobile banking is significantly influenced positively by Social norms (SN).

### 2.7. Perceived credibility

According to Zandhessami & Geranmayeh (2014), perceived credibility (PC) is defined as the level of trusting that the banking system will manage the money safely and keep the customers' personal information secured. based on the same research Zandhessami & Geranmayeh (2014) found that the PC will positively influence on the behavioural intentions to accept mobile banking. Thus, hypothesise is that:

**H4.** Behavioural intention to accept mobile banking will be influenced positively by Perceived credibility (PC).

The purpose of this research is to study the that might encourage factors acceptance level Malaysian' among students for mobile banking services. The research was conducted among students of University Kuala Lumpur by using a pre-The questionnaire designed survev. consisted of two sections, section A which asked about the demographic information of the students, while section B used a 5point Likert scale to measure the constructs in the research model.

The majority of the items used were adapted from previous studies Davis (1989); Luarn & Lin (2005) and Pedersen & Nysveen (2003) with a minor amendment to suit the study context. The questionnaire was drafted and then reviewed for improvement; 1ater distributed among students of business school in University Kuala Lumpur by applying a random sampling method. The study got 173 responses, just 115 out of these responses were usable. percentage of male participants (27.8%)

was lower than the female participants (72.2 %). The range of respondents covered three age groups, with the majority being 20 years & above (91.3 %). Most of the respondents (96.5%) had bank accounts where they use mobile Banking services, where 87.3% are using it several times per week.

#### 4. DATA ANALYSIS AND RESULT

The previous hypotheses and the proposed model were tested using Smart PLS 3.0. To insure reliability and validity of measurement the convergent and discriminant validity has been tested. The analysis then subsequently was made in the structural model, where a bootstrap technique was used to examine the significance of the relations.

The composite reliability of all variables is higher than the benchmark of 0.70, also the AVE value exceeds the 0.50 as recommended by (Fornell & Larcker, 1981). The inner reliabilities of the constructs were all acceptable as shown by Cronbach's alpha. The factor loadings of the items all being above 0.70 show good convergent validity of the measures (Hair, P.Gudergan, M.Ringle, & Sarstedt, 2017). Confirmation of the discriminant validity of the constructs (Fornell, C., & Larcker, 1981) is shown in table 2 where the square roots of the AVE were all greater than their shared variances in the inter-correlations between the constructs and the square roots of the AVE (diagonal elements). No multicollinearity presence was detected due to all VIF values being less than 2.5.

The path coefficients and the significance levels were studied to test the hypotheses. The statistical significance of each path coefficient was tested by carrying out a Bootstrapping technique. Hence, shows in Table 3 are the hypotheses, path coefficients and t-values. For the dependent variable the research model appeared to have satisfactory predictive power, where four out of the five hypotheses were supported.

#### 5. DISCUSSION

The outcomes of this study have reviled the overall model to have a better fit in the Malaysian students' context as the R<sup>2</sup> (67.6%) which means 67.6% of the variances in the behavioural intention to accept the mobile banking among the Malaysian' students are explained by the proposed model.

In previous studies which used TAM model the R<sup>2</sup> were less comparing with the result of the current study (Amin, 2007; Nel & Raleting, 2012; Riquelme & Rios, 2010). Therefore, the modified TAM model is supported by these results to study the acceptance of the mobile banking among the Malaysian' students.

The acceptance of mobile banking services appears to be significantly affected by the Perceived financial cost factor suggested by this study, whereas it yet tends to significantly negatively influence acceptance. This could be explained by the additional costs associated with using mobile banking that are expected and acknowledged by customers. Also, In the Malaysian students' context, and in regard to the intention to use mobile banking systems, perceived usefulness, subjective norms and perceived creditability found to have a significant impact on the adoption of the mobile banking services.

#### 6. CONCLUSION

Brought forward by this paper insight to the diverse acceptance patterns among the Malaysian' students based on a modified TAM which included new constructs related to the monetary nature of the service under study as perceived financial cost, perceived credibility, also another two social constructs are perceived expressiveness and social norms. Conformation of the continued existence of students' preferences differences has been provided by this study, and that the students' acceptance patterns are now different from findings reported before.

In order for practitioners and researchers to a have a better understanding of the different acceptance characteristics among students, it is imperative to keep up and conduct more researches to add new knowledge regarding the level acceptance among Malaysian' students for Mobile Banking. As a result, the researchers obtain the know how to promote the banking services offered on the mobile platform for everyday banking needs, particularly to the youth community.

The current study has some limitations as the findings here characterize younger students who are more used to mobile technologies than the older generation which made the results not generalized to older consumers without further testing. Lastly, the size of the sample used in this study can be increased to provide higher substantiality and stronger validity. Future research should look to identify new measures that are affecting the behavioural intention to use mobile banking services more widely and explore factors that are relevant consumers' more to characteristics.

#### REFERENCES

- Abdul Hadi, A. R., Hussain, H. I., Suryanto, T., & Yap, T. H. (2018). Bank's Performance and Its Determinants-Evidence from Middle East, Indian Sub-Continent and African Banks. *Polish Journal of Management Studies*, 17 (2).
- Alaeddin, O., Altounjy, R., Zainudin, Z., & Kamarudin, F. (2018). From physical to digital: investigating consumer behaviour of switching to mobile wallet. *Polish Journal of Management Studies*, 17(2), 18–30. https://doi.org/10.17512/pjms.2018.17.2.0
- Amin, H. (2007). Extending the technology acceptance model for SMS banking: Analyzing the gender gap among students. *International Journal of Business and Society*, 8(1), 15–27.

- Amin, H., Lada, S., Hamid, M. R. A., & Tanakinjal, G. H. (2005). A Preliminary Study on Students' Perception of SMS Banking: A Case at The Labuan International Campus-University Malaysia Sabah. *Journal of Internet Banking and Commerce*, 10(3).
- Bae, S., & Lee, T. (2011). Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research*, 11(2), 201–214.
- Chen, Y.-F., & Lai, M.-C. (2010). Factors influencing the entrepreneurial attitude of Taiwanese tertiary-level business students. Social Behavior and Personality: An International Journal, 38(1), 1–12.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, 13(3), 319–340. https://doi.org/10.2307/249008
- Dewan, S., & others. (2010). Past, present and future of m-banking research: A literature review.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 382–388.
- Garg, A. K., & Garg, D. (2013). An Assessment of 3G Internet Service Acceptance in Botswana: Technology Acceptance Model with Social Influence and Price Perception. *Pakistan Journal of Social Sciences (PJSS)*, 33(1).
- Goldgehn, L. (2004). Generation Who, What, Y? What You Need to Know About Generation Y. *International Journal of Educational Advancement*, 5(1), 24–34. https://doi.org/10.1057/palgrave.ijea.21402 02
- Hair, J., P.Gudergan, S., M.Ringle, C., & Sarstedt, M. (2017). Advanced Issues in Partial Least Squares Structural Equation Modeling.

- Hussain, H. I., Hadi, A. R. A., Mohamed-Isa,
  A., Salem, M. A., Kamarudin, F., &
  Jabarullah, N. H. (2018). Adjustment to
  Target Debt Maturity and Equity
  Mispricing: Evidence from Asia Pacific.
  Polish Journal of Management Studies, 17 (2).
- Kamarudin F., Sufian F., Nassir A.M., Anwar N.A.M., Ramli N.A., Tan K.M., Hussain H.I., 2018, *Price efficiency on Islamic banks vs. conventional banks in Bahrain, UAE, Kuwait, Oman, Qatar and Saudi Arabia: impact of country governance*, "International Journal of Monetary Economics and Finance", 11(4).
- Kim, G., Shin, B., & Lee, H. G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19(3), 283–311. https://doi.org/10.1111/j.1365-2575.2007.00269.x
- Kleijnen, M., Wetzels, M., & de Ruyter, K. (2004). Consumer acceptance of wireless finance. *Journal of Financial Services Marketing*, 8(3), 206–217. https://doi.org/10.1057/palgrave.fsm.4770 120
- Lai, T. L. (2004). Service quality and perceived value's impact on satisfaction, intention and usage of short message service (SMS). *Information Systems Frontiers*. https://doi.org/10.1023/B:ISFI.0000046377.32617.3d
- Lee, M. K. O., Cheung, C. M. K., & Chen, Z. (2007). Understanding user acceptance of multimedia messaging services: An empirical study. *Journal of the American Society for Information Science and Technology*, 58(13), 2066–2077. https://doi.org/10.1002/asi.20670
- Leung, L., & Wei, R. (2000). More than just talk on the move: Uses and gratifications of the cellular phone. *Journalism and Mass Communication Quaterly*, 77(2), 308–320. https://doi.org/10.1177/107769900007700
- Luarn, P., & Lin, H.-H. (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in*

- *Human Behavior*, *21*(6), 873–891. https://doi.org/10.1016/j.chb.2004.03.003
- Luk, C., Wan, W. W. N., & Chow, C. W. C. (2005). Customers' adoption of banking channels in Hong Kong. *International Journal of Bank Marketing*, 23(3), 255– 272.
  - https://doi.org/10.1108/026523205105917
- Mallat, N., Rossi, M., Tuunainen, V. K., & Öörni, A. (2006). The impact of use situation and mobility on the acceptance of mobile ticketing services. In *Proceedings of the Annual Hawaii International Conference on System Sciences* (Vol. 2). https://doi.org/10.1109/HICSS.2006.472
- Masrek, M. N., Halim, M. S. A., Khan, A., & Ramli, I. (2018). The Impact of Perceived Credibility and Perceived Quality on Trust and Satisfaction in Mobile Banking Context. Asian Economic and Financial Review, 8(7), 1013-1025.
- MCMC. (2017). Internet Users Survey 2017.
- Narayanasamy, K., Rasiah, D., & Tan, T. M. (2011). The adoption and concerns of efinance in Malaysia. *Electronic Commerce Research*, 11(4), 383–400. https://doi.org/10.1007/s10660-011-9081-5
- Nel, J., & Raleting, T. (2012). Gender differences in low-income non-users' attitude towards Wireless Internet Gateway cellphone banking. South African Journal of Business Management, 43(3), 51–63.
- Nysveen, H., Pedersen, P. E., & Thorbjørnsen, H. (2005). Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the Academy of Marketing Science*, 33(3), 330–346. https://doi.org/10.1177/009207030527614
- Park, Y., & Chen, J. V. (2007). Acceptance and adoption of the innovative use of smartphone. *Industrial Management & Data Systems*, 107(9), 1349–1365. https://doi.org/10.1108/026355707108340 09
- Pedersen, P. E., & Nysveen, H. (2003).

  Usefulness and Self-Expressiveness:

  Extending TAM to Explain the Adoption of a Mobile Parking Service. In

- Proceedings of the 16th Electronic Commerce Conference (pp. 705–717).
- Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing*, 28(5), 328–341. https://doi.org/10.1108/026523210110648
- Suoranta, M., & Mattila, M. (2004). Mobile banking and consumer behaviour: New insights into the diffusion pattern. *Journal of Financial Services Marketing*, 8(4), 354–366.

72

- https://doi.org/10.1057/palgrave.fsm.4770
- Thakur, R. (2013). Customer adoption of mobile payment services by professionals across two cities in India: An empirical study using modified technology acceptance model. *Business Perspectives and Research*, 1(2), 17–30.
- Venkatesh, V., Speier, C., & Morris, M. G. (2002). User Acceptance Enablers in Individual Decision Making About Technology: Toward an Integrated Model. *Decision Sciences*, 33(2), 297–316. https://doi.org/10.1111/j.1540-5915.2002.tb01646.x
- Viswanath, V., & Morris, M. G. (2000). Why don't men ever stop to ask for dirrections? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS Quarterly*, 24(1), 115–139. https://doi.org/10.2307/3250981
- Yang, A. S. (2009). Exploring Adoption difficulties in mobile banking services. *Canadian Journal of Administrative Sciences*, 26(2), 136–149.

- https://doi.org/10.1002/cjas.102
- Zandhessami, H., & Geranmayeh, P. (2014).

  Determinants of user acceptance of internet banking: An empirical study.

  Management Science Letters, 4(7), 1369–1374.
- Zarmpou, T., Saprikis, V., Markos, A., & Vlachopoulou, M. (2012). Modeling users' acceptance of mobile services. *Electronic Commerce Research*, *12*(2), 225–248. https://doi.org/10.1007/s10660-012-9092-x

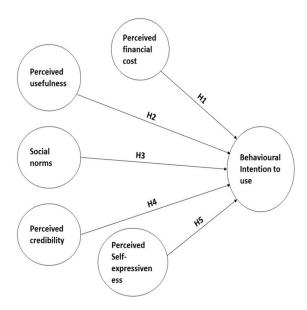


Figure 1. Research model

Table 1. The convergent validity

Construct	Items	Loading	Composite	Average variance
			reliability	extracted
Perceived Usefulness	PU1	0.946	0.974	0.926
	PU2	0.772		
	PU3	0.969		
Perceived Credibility	PC1	0.936	0.953	0.872
	PC2	0.826		
	PC3	0.740		
Perceived Financial Cost	PFC1	0.917	0.932	0.873
	PFC2	0.845		
	PFC3	0.765		
Perceived self-	PEX1	0.951	0.967	0.906
Expressiveness	PEX2	0.962		
	PEX3	0.942		
Social Norms	SN1	0.855	0.940	0.796
	SN2	0.914		
	SN3	0.894	-	
	SN4	0.904	-	
Behavioural Intention	BI1	0.950	0.964	0,899

Int. J. Manag. Bus. Res., 8 (3), 67-76, June 2018

to Use	BI2	0.963	
	BI3	0.931	

Table 2. The discriminant validity analysis

	BI	PC	PFC	PEX	PU	SN
BI	0.948					
PC	0.767	0.934				
PFC	0.366	0.404	0.934			
PEX	0.543	0.529	0.428	0.952		
PU	0.818	0.812	0.436	0.533	0.963	
SN	0.729	0.661	0.492	0.576	0.730	0.892

**Table 4 Hypothesis testing** 

Нуро	Relationship	Std. Beta	Std. Error	T. value	P. value	Supported
<b>H</b> 1	PFC -> BI	0.073	0.053	1.369	0.022	supported
H2	PU-> BI	0.436	0.129	3.378	0.001	supported
Н3	SN ->BI	0.244	0.097	2.512	0.012	supported
H4	PC -> BI	0.243	0.102	2.370	0.018	supported
Н5	PEX->BI	0.074	0.062	1.186	0.236	Not- supported