

Wafa Alkustaban

# User Acceptance for Mobile Applications in Insurance Service Applications: Case Study from Yemen Wafa Alkustaban

## Abstract

Few studies discuss the attitude toward and customer satisfaction with mobile application services in the life insurance industry. The purpose of this research is to investigate the effects of attitude toward using life insurers' mobile application services on customer satisfaction. A questionnaire was distributed to (600) insured people in Yemen. The data are analyzed through ANOVA, multiple regression, and path analysis.

The research findings have showed that Yemenis will accept mobile applications in tracking insurance companies.

Keywords: technology acceptance model, customer satisfaction, insurance, mobile

application, risk.





## Introduction

Technology Acceptance Model (TAM) have been used to investigate Technology effectiveness in several aspects in different cultures. Perceived usefulness (PU) and Perceived Ease of Use (PEU) formulate the pillars for user acceptance and behavioral intention to use it (Maraqa, 2018).

A mobile application (moapp) is a software application designed to run on mobile devices (Inukollu, 2014). Billions of mobile applications provide a broad basis for reaching clients in both developed and emerging markets (Ismail, 2016). Furthermore, financial institutions and mobile phone service providers are teaming up to provide banking services to customers (Rashed, 2014). Besides that, moapps uses growth rate has been so high (Islam, 2016).

To investigate moaopps in insurance sector; some consideration should be highlighted (Lai, 2017). Users' PU and PEU are positively affected (Lee, 2015).

In this study, TAM will be validated in insurance field in Yemen.

### Literature review

TAM has been validated for moapps have been. Ahmed (2016) found that the educational context influences the acceptance of smartphones as mobile learning tools. However, Ismail et al. (2016) found that flexibility, visibility, satisfaction, consistency, and aesthetics should be considered to usability.

Vinnik (2017) found that user acceptance of moapps depends on performance expectancy, price value and habit are confirmed to be significant in the influence on the user behavioral intention to adopt moapps.

Lule et. al. (2012) validated TAM in of mobile banking applications in Kenya. They revealed that PEU, PU, perceived self-efficacy and perceived credibility significantly influenced customers' attitude towards usage of M-banking.

) العدد ( ۱۱) _ فبراير _ ۲۰۲۰م	22	التجامعة الوطنية
		n •• • •



Anderson et. al. (2016) presented a qualitative exploration for health monitoring. Thus consumers use moapps and their perceived benefits. Similarly, Deng et. al. (2012) found that PU positively affects users' attitude toward Mobile Health Service, perceived service availability significantly impacts on PEU and PU, PU and attitude directly enhances intention.

Abu-Dalbouh et. al. (2017) used PU, PEU, user satisfaction and attribute of usability constructs for the mobile reminder application evaluations. Schmitz et. al. (2016) recommended series of approaches for checking suitability of health mobile applications. Suggested series are information fits to task, convenience value, and speed of transaction affect PU of moapps.

Concerning Yemen; some studies validated TAM in Yemen. Majority of them focused on user acceptance in ATM moapps in Yemen (Mutahar, 2018), (Rashed, 2013a) and (Rashed, 2014b). In contras (Maraqa, 2018) measured users' attitudes towards website characteristics in Yemen.

Many studies that validate TAM in Yemen. Majority of then focused user acceptance in ATM in Yemen and Portugal (Rashed, Santos, 2010a, 2010b, 2010c, 2010d, 2010e, 2010f, 2013a, 2013b, 2013c, 2014).

Marqa (2018) studied user acceptance for using websites. They found Yemenis to be keen on using websites. Meanwhile Rashed and Alajarmeh (2015) found that Yemenis would accept using biometrics rather than passwords.



## Discussion

Demographic characteristics		Frequency	%
Gender	Male	390	87.6%
	Female	55	12.4
Age	20-30 years old	144	32.4
	31-40 years old	174	39.1
	41-50 years old	95	21.3
	More than 50	32	7.2
	years old		
Academic	Secondary School	72	16.2
Achievements	Diploma	48	10.8
	Bachelor Degree	279	62.7
	High Diploma	24	5.4
	Master Degree	22	4.9
	Doctorate Degree	0	0
	Other	0	0
Length of	10 years and	224	50.3
Service	below		
	11-20 years	54	12.1
	20-30 years	103	23.1
	31 years and	16	3.6
	above		
	Missing	48	10.8
Occupational	Specialist	255	57.3
Level	Head of Section	87	19.6
	Manager	71	16
	General Manager	16	3.6
	Missing	16	3.6

#### Table 1: Demographic background of respondents

Table 1 shows the sample which consisted of 600 insured individuals.

Cost was negatively effects PU(  $\beta$  = - 0.097). it agrees with the findings of Vinnik (2017), Yu and Buahom (2013) and Naicker and Merwe (2018). However, the practical findings indicate that Cost is not a significant factor to PEU. The results agree with findings of Vinnik (2017) and Hew et al. (2015) and disagrees with Yu and Buahom (2013) and Naicker and Merwe (2018).



The findings of (sig = 0.287) indicated that Risk is not a significant factor to PU. The results disagree with Mutahar et all (2018), Alalwan et all (2017), Johnson (2005) and Naicker and Merwe (2018).

Risk is found to be important factor that effect PEU ( $\beta = 0.065$ , sig = 0.047). results agree with (Mutahar, 2018), Alalwan et all (2016) and Johnson (2005) and Naicker and Merwe (2018).

#### Conclusion

The results advise to conduct more business research to explore users' desires and needs in depth. cost would play significant role thus insurance service providers must provide their smart application services in low cost or free. In addition, insurance service providers should make the services provided by their smart app more transparent, clear, and user-friendly to make their customers feel comfortable and perceive low level of risk when they use their services via smart phones. Besides that, insurance service providers should arrange some seminars to their customers to explore the benefits they will gain from using the smart app services. Moreover, they have to develop a privacy policy of the smart app services provided.

As future work, we recommend to expand the sample to include Sana'a and other areas. Moreover, we advise to include studies from nearby countries.



### References

- 1. Abu-Dalbouh, H. M. (2017). A questionnaire approach based on the technology acceptance model for mobile tracking on patient progress applications. Journal of Computer Science, 9(6), 763-770.
- 2. Ahmed, M. S. (2016). Technology acceptance of smartphones as mobile learning tools: a contextual comparative study of engineering and education colleges (Doctoral dissertation) University of Canterbury, New Zealand.
- Alalwan, A.A., Dwivedi, Y., Rana, N.P., Williams, M.D., (2016). Consumer adoption of mobile banking in Jordan: examining the role of usefulness, ease of use, perceived risk and self-efficacy. J. Enterp. Inf. Manag. 29 (1), 118-139.
- Anderson, K., Burford, O., & Emmerton, L. (2016). Mobile health apps to facilitate self-care: a qualitative study of user experiences. PLoS One, 11(5), e0156164. Annual Report of General Cooperation for Social Security (2013)
- 5. Deng, Z., Zhang, L., & Zhang, J. (2012). Applying Technology Acceptance Model to Explore the Determinants of Mobile Health Service: From the Perspective of Public User. Paper presented at the WHICEB.
- Hew, J., Lee, V., Ooi, K. and Wei, J. (2015), "What catalyses mobile apps usage intention: an empirical analysis", Industrial Management & Data Systems, Vol. 115 No. 7, pp. 1269-1291. https://doi.org/10.1108/IMDS-01-2015-0028.
- Inukollu, V. N., Keshamoni, D. D., Kang, T., & Inukollu, M. (2014). Factors influencing quality of mobile apps: Role of mobile app development life cycle. arXiv preprint arXiv:1410.4537.
- 8. Ismail, N., Ahmad, F., Kamaruddin, N., & Ibrahim, R. (2016). A review on usability issues in mobile applications. IOSR Journal of Mobile Computing & Application, 3(3), 47-52.
- 9. Lai, P. (2017). The literature review of technology adoption models and theories for the novelty technology. JISTEM-Journal of Information Systems and Technology Management, 14(1), 21-38.

العدد ( ١١) _ فبراير _ ٢٠٢٠م	26	الجامعة الوطنية
------------------------------	----	-----------------



- Lee, C.-Y., Tsao, C.-H., & Chang, W.-C. (2015). The relationship between attitude toward using and customer satisfaction with mobile application services: an empirical study from the life insurance industry. Journal of Enterprise Information Management, 28(5), 680-697.
- Lule, I., Omwansa, T. K., & Waema, T. M. (2012). Application of technology acceptance model (TAM) in m-banking adoption in Kenya. International Journal of Computing & ICT Research, 6(1).
- Maraqa M., Rashed A. (2018), Users' Attitudes towards Website Characteristics, International Journal of Scientific & Engineering Research Vol. 9, No. 7 (PP.407-412).
- Maraqa M., Rashed A. (2018), Users' Attitudes towards Website Characteristics, International Journal of Scientific & Engineering Research. 2018. Vol. 9, No. 7 (PP.407-412).
- Mutahar, A. M., Daud, N. M., Ramayah, T., Isaac, O., & Aldholay, A. H. (2018). The effect of awareness and perceived risk on the technology acceptance model (TAM): mobile banking in Yemen. International Journal of Services and Standards, 12(2), 180-204.
- Naicker, V., & Merwe V. D. (2018). Managers' perception of mobile technology adoption in the Life Insurance industry. Information Technology & People, 31(2), 507-526.
- Rashed A., Alajarmeh N. (2015), Towards Understanding User Perceptions of Biometrics Authentication Technologies, IJCSIS May 2015 issue (Vol. 13 No. 5).
- 17. Rashed A., Santos H. (2010a), User Acceptance OTM Machine: in the Arab Culture, the International Journal on Electronic Security and Digital Forensics, published by Inderscience, 2010.
- Rashed A., Santos H. (2010b), Validating TAM with Odour Interface in ATM Machines, Global Journal of Computer Science and Technology GJCST Vol. 10 Issue 7: July/August, 2010 pages: 2-6.
- Rashed A., Santos H. (2010c), Validating TAM with Odour Interface in ATM Machines, Communications in Computer and Information Science, 2010, Volume 92, 131-138, DOI: 10.1007/978-3-642-15717-2\_15



- Rashed A., Santos H. (2010d), Multimodal Biometrics and Multilayered IDM for Secure Authentication, ICGS3 6th International Conference for on Global Security, Safety and Sustainability, 1-3 September 2010, Braga, Portugal.
- 21. Rashed A., Santos H. (2010e), OTM Machine Acceptance: in the Arab Culture, ICGS3 6th International Conference for on Global Security, Safety and Sustainability, 1-3 September 2010, Braga, Portugal.
- Rashed A., Santos H. (2010f), Odour User Interface for Authentication: Possibility and Acceptance: Case Study, the International MultiConference of Engineers and Computer Scientists 2010 (IMECS2010), (The 2010 IAENG International Conference on Bioinformatics), Hong Kong.
- 23. Rashed A., Santos H. (2013), New Technology Acceptance in Europe and Arabic Cultures: Comparative Study, 2013 Informing Science + IT Education Conferences, Porto, Portugal.
- Rashed A., Santos H. (2013a), New Technology Acceptance in Europe and Arabic Cultures: Comparative Study, 2013 Informing Science + IT Education Conferences, Porto, Portugal.
- 25. Rashed A., Santos H. (2013b), New Technology Acceptance in Europe and Arabic Cultures: Comparative Study, 2013 Informing Science + IT Education Conferences, Porto, Portugal.
- Rashed A., Santos H. (2014), Determinants of Behavioral Intention to Mobile Banking in Arab Culture, Research and Design Innovations for Mobile User Experience, Editors, KeremRizvanoglu and Gorkem Cetin, Publisher: IGI Global (Formerly Idea Group Inc.), 2014.
- Rashed A., Santos H. (2014), Determinants of Behavioral Intention to Mobile Banking in Arab Culture, Research and Design Innovations for Mobile User Experience, , Editors, KeremRizvanoglu and Gorkem Cetin, Publisher :IGI Global (Formerly Idea Group Inc.), 2014.
- Rashed A., Santos H., AlEryani A. (2013c), Determinants of Behavioral Intention to Mobile Banking in Arab Culture, The Fifth International Conferences on Advances in Multimedia MMEDIA 2013, April 21 - 26, 2013 - Venice, Italy



- 29. Rashed A., Santos H., Al-Eryani, A. (2013d), Biometrics Acceptance in Arab Culture: an Exploratory Study, ICCAT'2013, 21-22 January 2013, Sousse, Tunisia.
- Vinnik, V. (2017). "User adoption of mobile applications: Extension of UTAUT2 model." Master thesis. Norwegian School of Economics, Bergen.
- Yu, Y., & Buahom, K. (2013). Exploring factors influencing consumer adoption on mobile commerce services. The Business Review, Cambridge, 21(1), 258-265.



User Acceptance for Mobile Applications in Insurance Service Applications: Case Study from Yemen Wafa Alkustaban

