



A REVIEW OF A NEW TECHNOLOGY ADOPTION : A UTAUT POINT OF VIEW (PRE AND POST 2018)

Fahmi Zaidi Bin Abdul Razak

Faculty of Education & Social Science Widad University College
BIM Point, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia

ABSTRACT

Utaut has been used to predict the use of new technologies for a long time. This study will focus on the use of UTAUT to predict the use of new technologies in two different era which is before 2018 and 2018 and above. Various type of technologies are reviewed in this study. This study will also facilitate technology acceptance researcher to understand how UTAUT plays a role in predicting the use of new technologies.

Keywords: UTAUT, Literature Review, new technology adoption, TAM, TPB

1 INTRODUCTION

The field of information technology acceptance research will keep on growing along with the emergence of new technologies. Researchers, in conjunction with various model and theory facing a lot of options to choose from, in order to predict factors that contribute to the use of new technologies. These factors come in a set of predefined variables known as theories. Among the famous is UTAUT (Unified theory of acceptance and use of technology). UTAUT is pioneered by Venkatesh, Morris, Davis, & Davis (2003) with 4 predictors: performance expectancy, effort expectancy, social influence and facilitating condition as well as 4 moderators namely age, gender, experience and voluntariness. See Figure 1. UTAUT has a different background of root theory namely TAM (technology acceptance model) (Davis, 1989), TRA (theory of Reasoned Action) (Fishbein & Ajzen, 1975), MM (motivational model) (Vallerand, 1997), TPB (Theory of Planned Behaviour) (Ajzen, 1985), MPCU (Model of PC Utilization) (Thompson, Higgins, & Howell, 1991) IDT (Innovation Diffusion Theory) (Rogers, 1995) and SCT (Social Cognitive Theory) (Bandura, 1986).

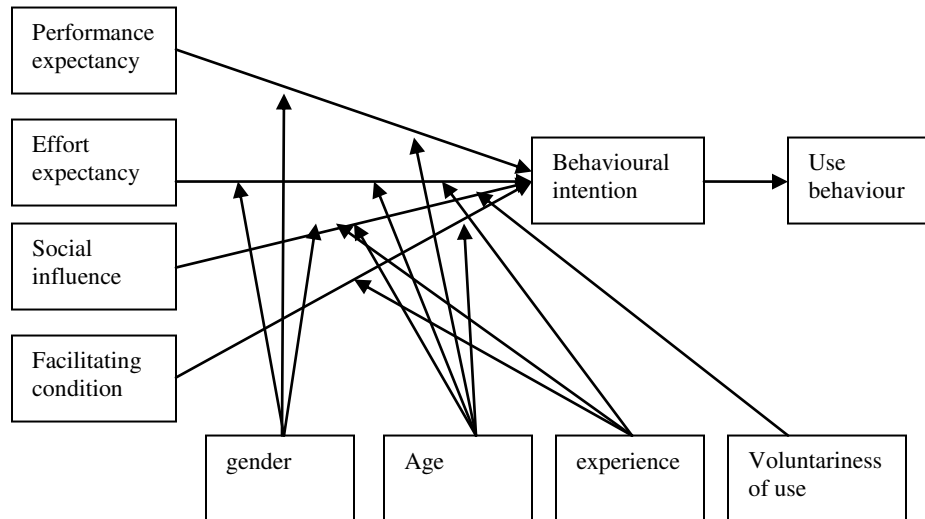


Figure 1 : Unified Theory of Acceptance and Use of Technology

2 PREVIOUS STUDIES USING UTAUT IN NEW TECHNOLOGY ADOPTION

2.1 Previous study (before year 2018)

Study by Lin, Lu, & Liu (2013) has proposed a conceptual model called EduBIM (Education Behavioral Intention Model), focuses on the degree of correspondence between students' perceived learning and teaching styles, which together directly moderate the intention and usage of e-learning systems. This study enriches the UTAUT model by integrating cognitive individual differences to synthesize the effects of demographic moderators. While study by Tan (2013) is aim to explore Taiwanese college students' needs for English E-learning websites. Accordingly, their paper uses the unified theory of acceptance and use of technology (UTAUT) to investigate and explain Taiwanese college students' acceptance of English E-learning websites. Another study by Thomas et al. (2013), is aim to compare the utility of modified versions of the unified theory of acceptance and use of technology (UTAUT) model in explaining mobile learning adoption in higher education in Guyana. Finally they evaluate the size and direction of the impacts of the UTAUT factors on behavioural intention to adopt mobile learning in Guyana. Another studies done by Escobar-Rodríguez, Carvajal-Trujillo, & Monge-Lozano (2014) extending the Unified Theory of Acceptance and Use of Technology (UTAUT) to identify factors that influence the perceived advantages and relevance of Facebook as a learning tool. The



proposed model in the study is based on previous models of UTAUT. Constructs from previous models were used such as performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation and habit. Additionally, two new perspectives were added: perceived advantages and perceived relevance of Facebook as a social media platform

2.2 *Most recent study (year 2018 and above)*

Study by Yumami, Setyohadi, & Suyoto (2018) aims to determine factors that contribute to e-tilang acceptance. According to Yumami et al. (2018), e-tilang is a mobile app that is used online by traffic police to take action against traffic violators on the highway. E-tilang aims to improve service to the public and reduce the misuse fines of traffic violations. This research factor influences acceptance and use of e-tilang by using UTAUT model. Study by Jaya, Anshari Nur, Faslih, & Anshari Nur (2018) is aimed to determine the factors explaining e-learning usage in Indonesia. They found that e-learning usage is directly affected by the facilitating condition and behavioral intention and behavioral intention were affected by performance expectancy, effort expectancy and social influence. Another study by Thongsri, Shen, Bao, & Alharbi (2018) is aiming to investigate factors that influence the intention to use mobile learning (m-learning) by learners in developing countries in Thailand. This study integrated two theories; namely, the unified theory of acceptance and use of technology (UTAUT), which focuses on technology, and uses and gratifications theory (UGT), which involves studying learners' motivation. Study by Yavwa & Twinomurizi (2018) using two electronic government services; the e-filing and e-payment services to investigate the moderating effect of indigenous culture and internet access on their acceptance and usage. The research model is based on the Unified Theory of Acceptance and Use of Technologies (UTAUT). While study by Tey & Moses (2018) is aim to explore the influence of the existing antecedents in the Unified Theory of Acceptance and Use of Technology (UTAUT) model with two additional variables (achievement goal and learning styles) on undergraduates' behavioural intention to use technology. This study also aimed to determine the best predictor of undergraduates' intention to use technology.

2.3 CONCLUSION

Based on literature highlights, UTAUT has a robust set of predictors in order to explain why people adopt new technologies. UTAUT can be able to explain the phenomena regardless any kind of new technologies. Future studies needs to explore other technology acceptance theories to see how effective it is to predict the acceptance of various technologies.



References

- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In *Action Control*. https://doi.org/10.1007/978-3-642-69746-3_2
- Bandura, A. (1986). *Social foundations of thought and action : a social cognitive theory / Albert Bandura*. Englewood Cliffs, N.J: Prentice-Hall.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. <https://doi.org/10.2307/249008>
- Escobar-Rodríguez, T., Carvajal-Trujillo, E., & Monge-Lozano, P. (2014). Factors that influence the perceived advantages and relevance of Facebook as a learning tool: An extension of the UTAUT. *Australasian Journal of Educational Technology*.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*.
- Jaya, S. N., Anshari Nur, M. N., Faslih, A., & Anshari Nur, M. N. (2018). Analysis of Behaviour of E-learning Users by Unified Teory of Acceptance and Use of Technology (UTAUT) Model A Case Study of Vocational Education in Halu Oleo University. *Jurnal Vokasi Indonesia*. <https://doi.org/10.7454/jvi.v5i2.109>
- Lin, P. C., Lu, H. K., & Liu, S. C. (2013). Towards an education behavioral intention model for e-learning systems: An extension of UTAUT. *Journal of Theoretical and Applied Information Technology*.
- Rogers, E. M. (1995). *Diffusion of innovations - 3rd Edition*. Macmillian Publishing Co. <https://doi.org/citeulike-article-id:126680>
- Tan, P. J. B. (2013). Applying the UTAUT to understand factors affecting the use of english e-learning websites in Taiwan. *SAGE Open*. <https://doi.org/10.1177/2158244013503837>
- Tey, T. C. Y., & Moses, P. (2018). UTAUT: Integrating Achievement Goals and Learning Styles for Undergraduates' Behavioural Intention to Use Technology. *EAI Endorsed Transactions on E-Learning*. <https://doi.org/10.4108/eai.25-9-2018.155573>
- Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization Personal Computing: Toward a Conceptual Model of Utilization1. *Source: MIS Quarterly*.
- Thongsri, N., Shen, L., Bao, Y., & Alharbi, I. M. (2018). Integrating UTAUT and UGT to explain behavioural intention to use M-learning: A developing country's perspective. *Journal of Systems and Information Technology*. <https://doi.org/10.1108/JSIT-11-2017-0107>
- Troy Thomas, University of Guyana, G., Lenandlar Singh, University of Guyana, G., Kemuel Gaffar, University of Guyana, G., Thomas, T., Singh, L., & Gaffar, K. (2013). The utility of the UTAUT model in explaining mobile learning adoption in higher education in Guyana. ... *Journal of Education and ...*



- Vallerand, R. J. (1997). Toward A Hierarchical Model of Intrinsic and Extrinsic Motivation. *Advances in Experimental Social Psychology*. [https://doi.org/10.1016/S0065-2601\(08\)60019-2](https://doi.org/10.1016/S0065-2601(08)60019-2)
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a unified view. *MIS Quarterly*. <https://doi.org/10.1017/CBO9781107415324.004>
- Yavwa, Y., & Twinomurizi, H. (2018). Impact of Culture on E-Government Adoption Using UTAUT: A Case of Zambia. In *2018 5th International Conference on eDemocracy and eGovernment, ICEDEG 2018*. <https://doi.org/10.1109/ICEDEG.2018.8372350>
- Yumami, E., Setyohadi, D. B., & Suyoto, S. (2018). Factors Influencing the Adoption of E-Tilang; Empirical Evidence from the UTAUT Model. *Indonesian Journal on Computing (Indo-JC)*. <https://doi.org/10.21108/indojc.2018.3.1.207>