The Use of Modified Unified Theory of Acceptance and Use of Technology 2 Model to Analyse Factors Influencing Behavioural Intentions (A Study on Bukalapak Mobile App Indonesia)

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ABSTRACT: Bukalapak is one of the leading online marketplace and unicorn company in Indonesia owned and run by PT. Bukalapak that focused on consumer-to-consumer (C2C) service that is e-commerce model who facilitated the user for selling and buying online transaction easier and simple. Bukalapak launched a mobile app for Android. The application known as Bukalapak Mobile App. It has been created for helping customer shopping via smartphone followed by the increases number of smartphone user in Indonesia. This research conducted to analyse factors the behavioural intention of using Bukalapak Mobile App. The measurement tool is already tested to 40 respondent that useBukalapak Mobile App. Thepilot test revealed that the measurement tool, the validity and reliability for8 variables and 32 item is has been fulfilled the requirements. Therefore, this proposed measurement tool is ready to be used in further study.

KEY WORD: UTAUT, Technology Adoption, Behavioural Intention

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I. INTRODUCTION AND LITERATURE REVIEW

Bukalapak is one of the leading online marketplace and unicorn company in Indonesia owned and run by PT. Bukalapak that focused on consumer-to-consumer (C2C) service that is e-commerce model who facilitated the user for selling and buying online transaction easier and simpler. Bukalapak giving opportunity for small business and brand to expanding online store in Bukalapak.

Bukalapak has a well reputation in terms of customer service and easy to access website since established 3 years later. Bukalapak also over time, growing with newest innovations to facilitate Bukalapak users for the transaction. In 2014, Bukalapak launched a mobile app for Android. The application known as mobile Bukalapak was created for helping customer shopping via smartphone. Since it was first launched until July 3, 2014, the application has been downloaded by more than 87 thousand users of Bukalapak.

According to Similiar Web, a website to track traffic statistics of website and application, from the last version November 2nd2018Bukalapak Mobile App has an average number of downloads of 2.8 Million users per month. Bukalapak Mobile App application also gets a 4.4 / 5 rating from users whose download applications through Google Play. Based on Similiar Web, the data shown 2.3 million people had downloaded the Bukalapak Mobile App in September 2018. The total number had decreased by 14.36% compared to the previous month August 2018 is 2.7 million user downloads. The total number of downloads had made Bukalapak Mobile App get 3rd position of shopping category in Indonesia which defeated by Shopee and Lazada, reported by Similiar Web on 4th November 2018. This ranking is sorted from all applications in the Shopping category in Indonesia in 2018. Bukalapak, as one of the Indonesian piece of works, is expected to stand bigger than any other mcommerce in Indonesia. In order to build up the consumer attention to use Bukalapak as their main mcommerce, the company need to know what makes the customer would have an intention to use the application that they have been created.

The Importance for Bukalapak is maintain the intention of their consumer to use Bukalapak Mobile Application. As previous research has postulated that indicators of technology acceptance, which are; performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value and habit has a significant influence on consumer behavior intention. Furthermore, Gender and Educational Level is believed to moderate the relationship between those indicators to consumer behavior intention (Hew et al., 2015) [3]. Regardless of how the system had been developed in the finest way, the consumers demand should have been one of the concerned of the company in order to attract them to use the

application. This research is expected to help the company figured out what factors that might influence the user to use Bukalapak Mobile App. Therefore, the author would like to conduct this research.

1.2 Research Objectives

The objective of the research is to analyse factors that influencing behavioural intentions of Bukalapak Mobile App in Indonesia.

1.3 Literature Review

In order to observe the factors influence behavioural intentions on Bukalapak Mobile App in Indonesia, the paper is going to use the technology adoption theories. Many theoretical models have been developed in the research user acceptance and adoption of new information technology innovation, each with different focuses and tested in different contexts and countries. There are eight theories of acceptance and adoption, there are Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (PTB), Model Combining the Technology Acceptance Model and Theory of Planned Behavior, Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), dan Social Cognitive Theory (SCT). Venkatesh et. Al (2003)[18] reviewed and sythesized eight theories/models of technology use into single Unified Theory of Acceptance and Use of Technology (UTAUT) model integrate the fragmented theory and research on individual acceptance on information technology into unified theoritical model. In order to make the model more consumers centric, Venkatesh et al. (2012) [20] extended UTAUT to UTAUT2 hedonic motivation, price value, and habit were added as the new constructs to formulate UTAUT2. The study uses UTAUT2 model as the base model and attempts to analyse the antecedents influencing the usage attitude users towards the mobile shopping apps. The author conducted this research using UTAUT 2 model because it is popularly known as the newest model to observe technology adoption research since 2012, in the context of consumer studies

.The extending of UTAUT represents an opportunity to make an important theoretical contribution, specifically in the context of technology adoption from consumer perspective (Venkatesh et. al, 2012) [20]. Overall, UTAUT 2 has seven endogeneous construct with three moderating variable that predict the effect of each construct to behavioural intention and technology use. UTAUT 2 model was built from UTAUT and additional extensions which now consist with 9constructs namely Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), FacilitatingCondition (FC), Hedonic Motivation (HM), Price Value (PV), Habit (H), Behavioral Intention (BI) and UseBehavior (UB) [12]. It also consists of three moderating variable as Age (A), Gender (G), and Experience (E).

According to Hew et.al (2015), Performance Expectancy and Effort Expectancy are commonly known as Perceived of Use (PU) and Perceived Ease of Use (PEOU) respectively in TAM Model. It is stated from hew et.al (2015) [3] Another study from Zhou et al. (2010) [22] also confirmed that there are positive and significant influence between EE and PE. The authors also dropped Experience (E) as a moderate variable because this study took a cross-sectional method which was taken in one period of time. The overall proposed model for this research can be seen in Figure 1 below:

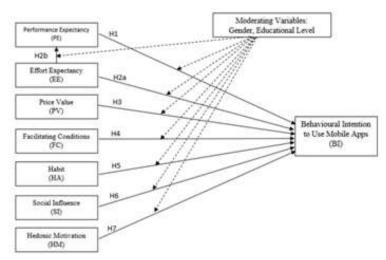


Figure 1: Authors's proceed of Conceptual Model adapted from UTAUT 2 Model(Hew et al 2015)

II. MEASUREMENT MATERIALS

The definition of each factors described as follow: Performance Expectancy (PE)Performance Expectancy was defined as the degree to which using a technology will provide benefits to consumers in performing certain activities (Venkatesh et. al, 2003) [18]. Effort Expectancy (EE) was defined as the degree of ease associated with consumer use of technology (Venkatesh et. al, 2003) [18]. Social Influence (SI) was defined as the extent to which consumers perceive that important others believe they should use particular technology (Venkatesh et. al, 2003) [18]. Facilitating Condition (FC) refers to consumer perceptions of the resources and support available to perform a behavior (Venkatesh et. al, 2003) [18]. Hedonic Motivation (HM) motivation is defined as the fun or pleasure derived from using a technology in the consumer context. Price Value (PV) defined as consumers' cognitive tradeoff between the perceived benefits of the applications and the monetary cost for using them (Dodds et. al, 1991). Habit (H) is defined as "the extent to which people tend to perform behaviours automatically because of learning", and it can also be viewed as a "perceptual construct that reflects the results of priorexperiences" (Venkatesh et al., 2012, p. 161) [20]. Based on the modified UTAUT 2 model applied in this study, there are 8 hypotheses and 16 sub-hypotheses. TABLE I shows the overall hypotheses that will be test using one-tailed test with 95% of confidence level.

No	Hypothesis		
H1	Performance expectancy has positive and significant influence		
п	Behavioural Intention to use Bukalapak Mobile App		
H2a	Effort Expectancy has positive and significant Influence Behavioural intention to use Bukalapak Mobile App		
H2b	Effort Expectancy has positive and significant Influence to Performance Expectancy		
Н3	Price Value has positive and significant influence on Behavioural Intention to use Bukalapak Mobile App.		
H4	Facilitating Conditions has positive and significant influence on Behavioural Intention to use Bukalapak Mobile App.		
H5	Habit has positive and significant influence on Behavioural Intention to use Bukalapak Mobile App.		
Н6	Social Influence has positive and significant influence on Behavioural Intention to use Bukalapak Mobile App.		
Н7	Hedonic Motivation has positive and significant influence on Behavioural Intention to use Bukalapak Mobile App.		
Н8	Gender moderate all relationships among constructs in the research model.		
Н8а	Gender moderate the influence of Performance Expectancy towards behavioural intention to use Bukalapak Mobile App		
H8b	Gender moderate the influence of Effort Expectancy towards behavioural intention to use Bukalapak Mobile App.		
Н8с	Gender moderate the influence of Effort Expectancy towards Performance Expectancy to use Bukalapak Mobile App		
H8d	Gender moderate the influence of Price Value towards behavioural intention to use Bukalapak Mobile App		
H8e	Gender moderate the influence of Facilitating Conditions towards behavioural intention to use Bukalapak Mobile App		
H8f	Gender moderate the influence of Habit towards behavioural intention to use Bukalapak Mobile App		
H8g	Gender moderate the influence of Social Influence towards behavioural intention to use Bukalapak Mobile App		
H8h	Gender moderate the influence of Hedonic Motivation towards behavioural intention to use Bukalapak Mobile App		
Н9	Educational Level moderate all relationships among constructs in the research model.		
Н9а	Educational Level moderate the influence of Performance Expectancy towards behavioural intention to use Bukalapak Mobile App		
H9b	Educational Level moderate the influence of Effort Expectancy towards behavioural intention to use Bukalapak Mobile App		
Н9с	Educational Level moderate the influence of Effort Expectancy towards Performance Expectancy to use Bukalapak Mobile App		
H9d	Educational Level moderate the influence of Price Value towards behavioural intention to use Bukalapak Mobile App		

Н9е	Educational Level moderate the influence of Facilitating Conditions towards behavioural intention to use Bukalapak Mobile App	
H9f	Educational Level moderate the influence of Habit towards behavioural intention to use Bukalapak Mobile App	
H9g	Educational Level moderate the influence of Social Influence towards behavioural intention to use Bukalapak Mobile App	
H9h	Educational Level moderate the influence of Hedonic Motivation towards behavioural intention to use Bukalapak Mobile App	

III. RESEARCH METHOD AND ANALYSIS

This research conducted a pilot study to test the questionnaire in this research had completely validto be applied for further study. These data collected from 40 users of Bukalapak Mobile App will be used for validity and reliability test. The authors proceeds data using IBM SPSS Statistic 25. next, the author conducted reliability test to respondents in order to make sure that each item in the questionnaire able to understand well. After that, the author conducted pilot study is to reinforce the validity construct by – respondent, those data will be used to perform validity and reliability test. In this research, author using Corrected Item – Total Correlation method, correlation analysis by operating Pearson Correlation. The result will be valid if the correlation coefficient is > 0.3 (Indrawati 2015: 149) [5]. And those result come from 40 respondents. According indrawati (2015:145) [5] Reliability relates to the level of confidence, consistency, or stability of the results of a measurement. In reliability test, Cronbach-Alpha technique is the most widely. The instrument is stated reliable and able to continue the process to the next step if the value of cronbach's alpha > 0,7(Sekaran, 2010:182) [15]

PE Code	CTIC	CR	
PE1	0,708	0,908	
PE2	0,815		
PE3	0,829		
PE4	0,836		
EE Code	CTIC	CR	
EE1	0,701	0,867	
EE2	0,756		
EE3	0,740		
EE4	0,685		
EE5	0,601		
SI Code	CTIC	CR	
SI1	0,894	0,941	
SI2	0,842		
SI3	0,929		
SI4	0,783		
FC Code	CTIC	CR	
FC1	0,790	0,861	
FC2	0,761		
FC3	0,623		
FC4	0,598		
FC5	0,712		
HM Code	CTIC	CR	
HM1	0,805	0,901	
HM2	0,796		
HM3	0,816		
PV Code	CTIC	CR	
PV1	0,699	0,840	
PV2	0,716		
PV3	0,716		
HA Code	CTIC	CR	
HA1	0,739	0,872	
HA2	0,821		
HA3	0,704		
HA4	0.657		
BI Code	CTIC	CR	
BI1	0,622	0,883	

BI2	0,698	
BI3	0,856	
BI4	0,821	

IV. CONCLUSION

The measurement material that conducted in this research had been tasted to 40 respondents of Bukalapak Mobile in Indonesia. The result of this study had proven that the instruments consist in the modified UTAUT 2 modelwhich include 8 construct and 32 items are valid and reliable. Therefore, this proposed measurement model is ready to be used in further study.

BIBLIOGRAPHY

- [1]. Anggraini, D., &Indrawati. (2018). THE USE OF MODIFIED UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY 2 MODEL TO ANALYZE FACTORS INFLUENCING CONTINUANCE INTENTION OF E-PAYMENT ADOPTION (A CASE STUDY OF GO-PAY FROM INDONESIA).
- [2]. Chong, A. Y. (2013). A two-staged SEM-neural network approach for understanding and predicting the determinants of m-commerce adoption. Expert Systems with Applications, 40(4), 1240-1247. doi:10.1016/j.eswa.2012.08.067
- [3]. Hew, J., Lee, V., Ooi, K., & Wei, J. (2015). What catalyses mobile apps usage intention: An empirical analysis. Industrial Management & Data Systems,115(7), 1269-1291. doi:10.1108/imds-01-2015-0028
- [4]. Holbrook, M. B., &Sheth, J. N. (2015). Legends in consumer behavior. Los Angeles: SAGE.
- [5]. Indrawati. (2015). MetodePenelitianManajemen dan Bisnis, KonvergensiTeknologiKomunikasi dan Bisnis. Bandung: PT RefikaAditama
- [6]. Indrawati. (2017). PerilakuKonsumenIndividu, Bandung: PT RefikaAditama.
- [7]. Kotler, K. (2012). Marketing Management. Pearson Education Limited.
- [8]. Laudon, K., & Traver, C. (2015). E-Commerce 2015, Global Edition. Harlow, United Kingdom: Pearson.
- [9]. Li, Q., & Yang, D. (2014). Predicting Determinants and Moderating Factors of Mobile Phone Data Flow Service Adoption. IEEE.
- [10]. Malhotra, N. K. (2010). Review of marketing research. Armonk, NY: M.E. Sharpe.
- [11]. Malhotra, N. K. (2014). Basic marketing research. Harlow: Pearson Education Limited.
- [12]. Miadinovic, J., & Xiang, H. (2016). A Study on Factors Affecting the Behavioural Intention to use Mobile Shopping Fashion Apps in Sweden.
- [13]. Natarajan, T., Balasubramanian, S. A., &Kasilingam, D. L. (2018). The moderating role of device type and age of users on the intention to use mobile shopping applications. Technology in Society, 53, 79-90. doi:10.1016/j.techsoc.2018.01.003
- [14]. Nofadhila, A., &Prasetio, A. (2018). The Consumer Acceptance of Traveloka Mobile App Affects Behavioural Intention: Analyzing 7 Factors of Modified UTAUT2 Model (Study Case in Indonesia).
- [15]. Sekaran, U., & Bougie, R. (2010). Research methods for business: A skill-building approach. New York: Wiley.
- [16]. Tak, P., & Panwar, S. (2017). Using UTAUT 2 model to predict mobile app based shopping: Evidences from India. Journal of Indian Business Research, 9(3), 248-264. doi:10.1108/jibr-11-2016-0132
- [17]. Turban, E., King, D. R., Lee, J. K., Liang, T., & Turban, D. C. (2015). Electronic commerce: A managerial and social networks perspective. Cham: Springer.
- [18]. Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly,27(3), 425. doi:10.2307/30036540
- [19]. Venkatesh, Morris, Davis, & Davis. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly,27(3), 425. doi:10.2307/30036540
- [20]. Venkatesh, Thong, & Xu. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. MIS Quarterly,36(1), 157. doi:10.2307/41410412
- [21]. Wu, M. C. (2016). An Examination of Mobile Application Use Intention through the Unified Theory of Acceptance and Use Technology Model. The Journal of International Management Studies,.
- [22]. Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. Computers in Human Behavior, 26(4), 760-767. doi:10.1016/j.chb.2010.01.013
- [23]. Zikmund, W. G., &Babin, B. J. (2010). Exploring marketing research. S.l.: South-Western, Cengage Learning

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