Grab Pay App: The Factors Influencing Tourists' Behavioural Intention-to-Use

Nik Alif Amri Nik Hashim[1], Wan Farha Wan Zulkifli[2], Roslizawati Che Aziz[3], Nor Maizana Mat Nawi[4], Zaimatul Awang[5], Nur Hafizah Muhammad[6], Abdullah Muhamed Yusoff[7]

[1]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan
Email: nikalifamri@gmail.com
[2]Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan
[3]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan
[4]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan
[5]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan
[6]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan
[7]Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan

Abstract*:* The purpose of this paper was to study influences that that may affect tourists' behavioural intention of using GrabPay. The study was conducted in the Klang Valley area of Selangor, Malaysia. Self-administered questionnaires have been chosen for this study to collect data from tourists in the Klang Valley area. About 220 questionnaires were distributed to the tourists using convenience sampling technique. As a result, among the factors shown to influence tourist behavioural intention to use GrabPay were perceived usefulness and trust. Also, trust was the utmost positive dominant influence that affected tourists' behavioural intention of using GrabPay. This current study is beneficial for policymakers and tourism operators in Malaysia. The study's findings have given perceptive evidence and data for tourism operators in Malaysia to outline promotional approaches that can entice more tourists to visit in the future.

Keywords: GrabPay; Tourist; Behavioural intention; Malaysia.

I. INTRODUCTION

Nowadays, progressing nations have been experiencing tremendous advancements in the shift toward using mobile payment applications since the previous years. According to Raina (2014), the volume of global mobile payment transactions has tripled over the past two years. The dramatic increase in consumers' interest has motivated many companies to compete aggressively for consumers' mobile payments (Raina, 2014). These provisional innovations have gone by numerous terms, such as mobile commerce, mobile banking, mobile transfers, and mobile wallets.

Together, they propose a greater marketing plan to firms that are looking to reach massive consumers not included in the mainstream financial flows (Bezhovski, 2016). One of the companies using mobile payment application is Grab, which has introduced the mobile payment application known as GrabPay. GrabPay is one of the new types of service introduced by the company other than GrabCar, GrabExpress, and GrabFood. The launch of the application was made through a collaboration with Maybank, which would see an integrated support between Maybank2U and GrabPay facilities to make it easier for consumers when using GrabCar. In addition, GrabPay not only can be used to pay for transport services, but also can be utilised for mobile payments and physical store purchases. Owing

to that, GrabPay has successfully penetrated the market thanks to their partnership with various convenience stores. By using the Quick Response (QR) code at the counters, direct money transfers can be completed with just a scan (Durak, Ozkeskin & Ataizi, 2016).

Despite the growth of e-commerce, which has largely been contributed by the growth of smartphone users around the world, the utilisation of online payment capabilities, additional advancement, and extensive adoption by consumers rely on the security and validation consistency of numerous electronic payment systems (Aigbe & Akpojaro, 2014). Whenever people use a technology, their main concern is its security, as every tech can be vulnerable to scam, data stealing, and hacking. Furthermore, the lack of trust in service providers is also considered to be a major concern (Chandra Srivastava & Theng, 2010; Keramati, Taeb, Larijani & Mojir, 2011; Thair, Luo & Peter, 2010; Xin, Techatassanasoontorn & Tan, 2013). GrabPay app's development in recent years has brought about positive changes to Malaysia. However, there is limited literature and research in Malaysia in this area, especially in the field of tourist behavioural intention of using this service. Therefore, this research intends to investigate the most influential determinants that may affect tourists' behavioural intention of using the GrabPay service in Malaysia.

II.   LITERATURE REVIEW

Perceived Usefulness

The perceived usefulness can be described as the extent of an individual's belief that using a specific system will improve one's occupational or life routine (Davis, 1989). This follows from the definition of the phrase: "capable of being used advantageously". According to the Elaboration Likelihood Model (ELM), information can influence the formation of an individual's attitudes in a central route. In the context of mobile payments, the consumers' deep considerations about the usefulness of a mobile payment service, especially the use of GrabPay, are said to have used the central route to form their trust in mobile payments (Zhu, Lan & Chang, 2017; Ahmad & Ahmad, 2019). Based on the study by Amin, Rezaei, and Abolghasemi (2014), it is discovered that consumers' observation of usefulness certainly strengthens their confidence in a mobile system which can influence them to use e-wallet. Numerous different studies have shown that perceived usefulness demonstrates a direct correlation with attitude and the intention to use.

Perceived Ease-of-Use

Perceive ease-of-use is one of the variables of the Technology Acceptance Model (TAM), which was developed by Davis (1989) that refers to the degree in which the perception of users towards the use of a particular system will be effortless, or simply, easy to handle. In other words, users perceive that the system is very simple to use. Same goes with perceived usefulness, perceived ease-of-use is also said to have an important effect toward the attitude of usage (Holden & Karsh, 2010; Teo, 2011). Furthermore, perceived ease-of-use has been considered as a precursor to the perceived usefulness (Davis, 1989).

Trust

Trust can be described as the inclination to adopt a new service with the impression of ease, security, and recognition of risk (Kim, Mirusmonov & Lee, 2010). In mobile payment service, trust can be defined as the users' voluntary intention of performing monetary transfers through mobile internet and their expectation that the payment system will fulfil its responsibilities, regardless of the users' capability to supervise or regulate the activities done by the mobile payment system (Ahmad & Sahar,

2019; Cao, Yu,Liu, Gong & Adeel, 2018). Trust in the payment method will aid in reducing the pressure to comprehend, regulate, and supervise action; thus, enabling consumers to engage with transactions effortlessly and effectively, minus the exertion from trying to understanding how the service functions (Munoz, Esparza, Aguilar, Carrascal, & Forne, 2010; Ahmad & Ahmad, 2018). In terms of mobile transactions, consumers' levels of trust are as follows: (1) trust in the mobile service provider (e.g. Tencent) that offers mobile payment apps and techs; (2) trust in the telecommunication provider (e.g. China Mobile) that supervises the network's consistency; (3) trust in the vendors or retailers that provide the QR code or contactless payment method; and (4) trust in the financial institutions that assure secured transactions with the customers' current bank accounts (Chavda, 2018).

Perceived Security Risk

In the research of wireless environment, Ooi and Tan (2016) noted that perceived risk in mobile security is a vital construct because it will determine the consumers' decision whether to use the new innovation. Perceived security risk deals with the security of financial transaction services that are always a prime concern for consumers, as well as their perception of the protection against risk associated M-wallet adoption (Kumar, Adlakaha & Mukherjee, 2018). Researcher Lai (2016) pointed out that security is associated with an organisation's providing the standard of security to consumers and that risk will be associated with consumers' confidence in utilising new technology. The security encompasses the three dimensions of reliability, safety, and privacy in order to minimise negative consequences and enhance the perception of security among users (Lai, 2016).

Behavioural Intention-to-Use

Behavioural intention refers to the probability that an individual will perform the behaviour (Ajzen & Fishbein, 1970). Behavioural intention is extensively considered as the precursor to the real utilisation of technology. Intention is defined as a tendency to react positively or negatively to an object, person, occurrent, or institution; this viewpoint is the role of behavioural beliefs and assessment of consequences (Ajzen & Fishbein, 1980). Behavioural intention also refers to the desire of individuals to perform or not to perform some specified future behaviour (Venkatesh & Davis, 2000). In this current research, behavioural intention refers to the intention of consumers in using GrabPay.
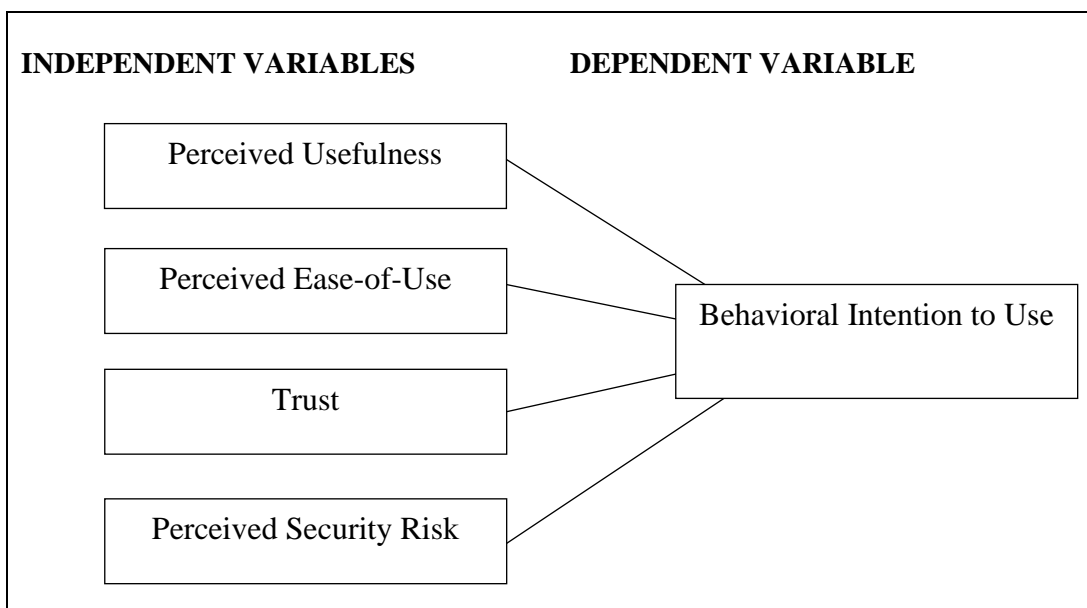
III.   CONCEPTUAL FRAMEWORK

Figure 1. A conceptual framework

IV.   METHODOLOGY

Research Design

A quantitative technique was applied in this study. This study engaged a tourist population among those aged 18-35 years old. Samples had been selected to meet certain criteria; for example, the tourist must have experience in using the GrabPay app before. The process of data collection was conducted in Klang Valley over weekends. Tourists were approached and given questionnaire forms. A total of 220 responses were obtained, based on using the GPower sample size (Faul, Erdfelder, Lang, & Buchner, 2007). After data collection, they were analysed via IBM SPSS version 24. The details of the data collection procedure are listed in Table 1.

Table 1. Data Collection Procedure

Population	Tourist
Size of Sampling	220 respondents
Sampling Method	Convenience Sampling
Research Approach	Quantitative Technique
Data collection	Self-Administered distribution of a questionnaire
Data Analysis	IBM SPSS version 24

Instrumentation

The seven questionnaire sections have been designed to gather information from the tourists. Section A consists of questions on the demographic profile, section B relates to the perceived Usefulness, and section C pertains to questions related to Perceived Ease-of-Use. The variable on trust is included in Section D, while section E presents questions on Perceived Security Risk. Last but not least, Section F contains questions about Behavioural Intention-to-Use. The instrumentation for this study was adopted and adapted from prior studies, for instance, Nik Hashim, Yusoff, Awang, Aziz, Ramlee, Bakar, Noor and Fatt's (2019), Zhu, Lan & Chang's (2017), Talukder, Quazi & Sathye's (2014) and Zhang, Sun, Yang & Wang's (2018). A seven-point Likert Scale was used for the items to ensure that the research would gain in-depth info, which ranged from (1) = very strongly disagree, to (7) = very strongly agree. The details of the instrumentation are listed in Table 2.

Table 2. Demographics of consumer (n = 220).

Sections	No of item	Authors
Section A (Demographic Profile)	-	-
Section B (Perceived Usefulness)	5	Zhu, Lan & Chang, 2017; Talukder, Quazi & Sathye, 2014;

		Zhang, Sun, Yang & Wang, 2018	
Section C (Perceived Ease-of-Use)	5	Talukder, Quazi& Sathye, 2014;	
		Zhang, Sun, Yang & Wang, 2018	
Section D (Trust)	7	Zhu, Lan & Chang, 2017	
Section E (Perceived Security Risk)	5	Zhu, Lan & Chang, 2017;	
		Dastan & Gurler, 2016	
Section F (Behavioral Intention to Use)	5	Zhang, Sun, Yang & Wang, 2018;	
		Zhu, Lan & Chang, 2017	
		Nik Hashim, Yusoff, Awang, Aziz, Ramlee, Bakar, Noor and Fatt, 2019	

V.   RESULTS AND DISCUSSION

Profile of Respondents

The respondents' demographics are depicted in Table 3. In terms of gender distribution, female respondents are 55.9%, while male respondents are 44.1%. With regard to age, more than half of respondents are between 21 and 23 years old (74%), around 18.1% are 24 to 26 years old, and respondents in the age group of 33 to 39 are 0.5%. Nearly more than 80% of the respondents are Bachelor degree holders, followed by respondents with diplomas (6.4%). Furthermore, a smaller percentage (1.8%) of respondents holds a Master's degree. The majority of the respondents are students (59.1%), followed by private sector workers (31.8%), and the unemployed (2.7%). A minority of the respondents are government officers (1.4%). In addition, the majority of the respondents earn incomes of RM1,500 and below (63.2%), while 5.0% of the respondents earn incomes between RM1,501 and RM2,500. Finally, for marital status, the highest percentage of respondents is single, representing 99.1%, whereas married respondents represent 0.9%.

Table 3. Demographics of consumer (n = 220).

Variables	Category	Frequency	Percentage (%)
Gender	Male	97	44.1
	Female	123	55.9
Age	18 to 20	7	3.2
	21 to 23	163	74
	24 to 26	40	18.1

	27 to 29	6	2.8
	30 to 32	2	0.9
	33 to 35	1	0.5
	36 to 39	1	0.5
Education	SPM	8	3.6
	STPM	10	4.5
	Diploma	14	6.4
	Foundation	7	3.2
	Bachelor's Degree	177	80.5
	Master's Degree	4	1.8
Occupation	Government Servant	3	1.4
	Private Sector Worker	70	31.8
	Self-employed	6	2.7
	Student	130	59.1
	Unemployed	11	5.0
Income	RM 1500 and below	139	63.2
	RM 1501 – RM 2500	11	5.0
	RM 2501 – RM 3500	38	17.3
	RM 3501 – RM 4500	19	8.6
	RM 4501 and above	13	5.9
Marital Status	Single	218	99.1
	Married	2	0.9

Multiple Regressions

The most prevalent type of linear regression analysis is multiple regression analysis. It is considered as an extrapolative analysis, where it is utilised to describe the correlation between one continuous dependent variable and two or more independent variables. Independent variables can be continuous or categorical. In this study, multiple regression was measured to predict and calculate the pattern of linear relationship among perceived usefulness, perceived ease-of-use, trust, perceived security risk,

and behavioural intention-to-use. As the current research aimed to examine the most influential factors that affect the behavioural intention of using GrabPay among tourists in the Klang Valley area, the multiple linear regression analysis was performed. Based on Table 4.17, trust is the greatest positive influential determinant that affects behavioural intention-to-use compared to the other three independent variables (perceived usefulness, perceived ease-of-use, and perceived security risk), due to the β value being the highest (0.599) among all independent variables. This is in line with the research findings of Zhu, Lan, and Chang (2017), where trust had been verified to show the most substantial positive influence on behavioural intention-to-use. Another study conducted by Zhou (2014) further confirmed that consumers' trust of mobile transactions signifies a decisive effect on their intent to use the service. In summary, based on the findings, trust is proven to be the most influential factor that affects behavioural intention of using GrabPay among tourists in the Klang Valley area.

Table 4. Table of Coefficients Analysis

Model	Unstandardized Coefficients Beta	t	Sig. level	Comments
Perceived Usefulness	0.311	4.278	0.000	Significant
Perceived Ease-of-Use	0.154	2.195	0.029	Insignificant
Trust	0.599	6.938	0.000	Significant
Perceived Security Risk	-0.040	-0.874	0.383	Insignificant

a. Dependent Variable: Behavioural Intention-to-Use

Source: Developed for the research.

VI. CONCLUSION

The present study has several limitations that may potentially influence the interpretation of the result. First, this study was conducted in the Klang Valley area. Results need to be interpreted with caution, as they limit the generalisation to other contexts. To improve the generalisation of the findings, replicated studies are recommended in the future, so that this study could be conducted with the same model between different settings, such as examining different states instead of a specific district, focusing on different types of tourist, i.e. domestic and foreign, to compare the result. The second limitation pertains the respondents. Other research can investigate the perceptions of authorities, such as the Grab company itself, policymakers, and government agencies, rather than only scrutinising on the perception of tourists. With this, it would help to understand the different categories of perception, that of the tourists, the Grab company, and others. In summary, the results of this study have confirmed that trust is the most positive influential factor to affect behavioural intention-to-use GrabPay. Thus, it is recommended that tourism industry players understand the business configuration of GrabPay and understand the factors that should be considered to improve the services provided and to increase the adoption rate of e-wallet among users in Malaysia. This study can serve as a guideline for the information technology industry to improve services according to the needs and wants of tourists in

the Klang Valley area. Besides that, the study's findings have provided insightful information and knowledge to the tourism industry players in Malaysia, particularly in terms of planning marketing strategies to attract more tourists.

ACKNOWLEDGEMENT

REFERENCES

[1] Aigbe, P., & Akporajo, J. (2014). Analysis of Security Issues in Electronic Payment Systems. *International Journal of Computer Applications,* 108(10), 10-14.

[2] Ahmad, I., Sahar. (2019). Waste Management Analysis From Economic Environment Sustainability Perspective. International Journal Of Scientific & Technology Research 8(12), 1540-1543.

[3] Amin, M., Rezaei, S., & Abolghasemi, M. (2014). User satisfaction with mobile website: The impact of perceived usefulness (PU), perceived ease of use (PEOU) and trust. *Nankai Business Review International,* 5(3), 258-274.

[4] Ahmad, I., & Ahmad, S. (2019). The Mediation Effect of Strategic Planning on The Relationship Between Business Skills and Firm's Performance: Evidence from Medium Enterprises in Punjab, Pakistan. *Opcion, 35*(24), 746-778.

[5] Ajzen, I., & Fishbein, M. (1970). The prediction of behavior from attitudinal and normative variables. *Journal of Experimental Psychology,* 6(4), 466-487.

[6] Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* University of Michigan: Prentice-Hall.

[7] Ahmad, I., & Ahmad, S. (2018). Multiple Skills and Medium Enterprises' Performance in Punjab Pakistan: A Pilot Study. *Journal of Social Sciences Research, 7*(2010), 44-49.

[8] Bezhovski, Z. (2016). The Future of the Mobile Payment as Electronic Payment System. *European Journal of Business and Management,* 8(8), 127-132.

[9] Cao, X., Yu, L., Liu, Z., Gong, M. & Adeel, L. (2018). Understanding mobile payment users' continuance intention: a trust transfer perspective. *Internet Research,* 28(2), 456-476.

[10] Chandra, S., Srivastava, S. C. & Theng,Y-L. (2010). Evaluating the Role of Trust in Consumer Adoption of Mobile Payment Systems: An Empirical Analysis. *Communications of the Association for Information Systems,* 27(1), 561-588.

[11] Chavda, V. (2018). An Empirical Study on Factors Affecting Consumer Adoption of Mobile Payments in Rural Area. *Journal of Management and Research,* 8(1), 64-71.

[12] Dastan, I., & Gurler, C. (2016). Factors Affecting the Adoption of Mobile Payment Systems: An Empirical Analysis. *Emerging Markets Journal*, 6(1), 17-24.

[13] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and user Acceptance of Information Technology. *MIS Quarterly,* 13(3), 319-339.

[14] Durak, G., Ozkeskin, E., & Ataizi, M. (2016). QR code in education and communication. *Turkish Online Journal of Distance Education-TOJDE,* 17(2), 42-58.

[15] Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research Methods, 39*(2), 175-191.

[16] Holden, R. J., & Karsh B. (2010). The Technology Acceptance Model: Its past and its future in health care. *Journal of Biomedical Informatics,* 43(1), 159-172.

[17] Keramati, A., Taeb, R., Larijani, A. M., & Mojir, N. (2011). A combinative model of behavioral and technical factors affecting 'Mobile'-payment services adoption: An empirical study. *The Service Industries Journal,* 32(9), 1489-1504.

[18] Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. *Computers in Human Behavior,* 26(3), 310-322.

[19] Kumar, A., Adlakaha, A., & Mukherjee, K. (2018). The effect of perceived security and

grievance redressal on continuance intention to use M-wallets in a developing   country. *International Journal of Bank Marketing,* 36(7), 1170-1189.

[20]   Lai, P.C. (2016). Design and Security impact on consumers' intention to use single platform E-payment. *Interdisciplinary Information Sciences,* 22(1), 111-122.

[21]   Munoz, J. L., Esparza, O., Aguilar, M., Carrascal, V., & Forne, J. (2010). Reliable dynamic source routing for video-streaming over mobile ad hoc networks.   *Computers Networks,* 54(1), 79-96.

[22]   Nik Hashim, N.A.A., Yusoff,A.M., Awang,Z., Aziz,R.C., Ramlee, S.I.F., Bakar,N. A., Noor & Fatt, B.S. (2019). The Effect of Domestic Tourist Perceived Risk on Revisit Intention in Malaysia. *International Journal of Innovative Technology and Exploring Engineering (IJITEE),*8(10),4591-4596.

[23]   Ooi, K., & Tan, G. W. (2016). Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications,* 59, 33-46.

[24]   Raina, V. (2014). *Chapter: Overview of Mobile Payment, Electronic Payment Systems   for Competative Advantage in E-Commerce, Edition: February 2014.* IGI Global.

[25]   Talukder, M., Quazi, A., & Sathye, M. (2014). Mobile Phone Banking Usage Behaviour: An Australian Perspective. *Australian Accounting, Business and Finance Journal,* 8(4), 83-104.

[26]   Teo, T. (2011). Factors influencing teachers' intention to use technology: Model development and test. *Computers and Education,* 57 (4), 2432-2440.

[27]   Thair, A., Luo, S., & Peter, S. (2010). Consumer acceptance of mobile payments: An empirical study. *4th International Conference on New Trends in Information   Science   and Service Science,* 1, 533 - 537.

[28]   Venkatesh, V. & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science,* 46(2), 186-204.

[29]   Xin, H., Techatassanasoontorn, A. A., & Tan, F. B. (2013). Exploring the Influence of Trust on Mobile Payment Adoption. *Pacific Asia Conference on Information   Systems (PACIS), 2013.*

[30]   Zhang, Y., Sun, J., Yang, Z., & Wang, Y. (2018). What Makes People Actually Embrace or Shun Mobile Payment: A Cross-Culture Study. *Mobile Information Systems,   2018,* 1-13.

[31]   Zhou, T. (2014). Understanding the determinants of mobile payment continuance usage. *Industrial Management & Data Systems,* 114(6), 936-948.

[32]   Zhu, D. H., Lan, L. Y., & Chang, Y. P. (2017). Understanding the Intention to Continue   Use of a Mobile Payment Provider: An Examination of Alipay Wallet in China. *International Journal of Business and Information; Sansia,* 12(4), 369-390.