FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP

(FPTT)

"UNDERSTANDING THE BARRIERS IN ADOPTING DIGITAL PAYMENT"

LEE ERIN

B061910325

BACHELOR OF TECHNOLOGY MANAGEMENT (HIGH TECHNOLOGY MARKETING WITH HONOURS)

BTMM

DECLARATION OF SUPERVISOR AND PANEL

I hereby acknowledge that this research paper has been accepted as part of fulfillment for the degree of "**BACHELOR OF TECHNOLOGY MANAGEMENT (HIGH TECHNOLOGY MARKETING) WITH HONOURS (BTMM)**"

SIGNATURE :

NAME OF SUPERVISOR : MISS ATIKAH SAADAH BINTI SELAMAT

DATE : 03/02/2023

SIGNATURE :

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

NAME OF PANEL : DR ATIRAH BINTI SUFIAN

DATE : 3/2/2023

DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled "**UNDERSTANDING THE BARRIERS IN ADOPTING DIGITAL PAYMENT**" is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.

SIGNATURE : *Ashley*

NAME : LEE ERIN

MATRIC : B061910325

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

TOPIC

“UNDERSTANDING THE BARRIERS IN ADOPTING DIGITAL PAYMENT”

LEE ERIN

B061910325

This thesis is submitted in partial fulfilment of the requirements for the award of

“**BACHELOR OF TECHNOLOGY MANAGEMENT (HIGH TECHNOLOGY MARKETING) WITH HONOURS**”

BTMM

FACULTY OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP (FPTT)

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

UNIVERSITI TEKNIKAL MALAYSIA MELAKA (UTeM)

DEDICATION

I would like to dedicate this research to my ***family and friends*** who have given the most support and love to study until this education level. Also, I like to express a deep sense of gratitude to ***all my lecturers*** who have taught me so much in the whole degree class. Last but not least, I could not have done this without the help from my supervisor for my final year project, ***Miss Atikah Saadah Binti Selamat***. Each person mentioned above has provided me with different kinds of support and advice throughout this whole research. Without their support and motivation, this research is hard to complete within a short period of time.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ACKNOWLEDGEMENT

Firstly, I would like to say a special thank you to my ***supervisor Miss Atikah Saadah Binti Selamat*** for her help in my research project. Without her help, I could not have done my thesis of digital payment. Also, I sincerely appreciate my ***panel, Dr Atirah Binti Sufian,*** for helping and sharing her opinion and knowledge in my research project during the Q&A session.

Next, I would like to thank all of my ***family and friends*** for their cooperation in this research project. They provide some good and different points of view in helping improve my research. Also, some of the ***seniors in UTeM*** have given me encouragement before I start to do my research to build my confidence and to know what I will be doing in my semester 6 and semester 7. Moreover, I would like to thank ***God*** for giving me health and protection to this world to keep fighting in my life and for me to keep up in my education life.

Lastly, I would like to express my gratitude to ***all the people*** who cooperate in the research, especially the part of filling in the survey. With their help of active and valuable feedback, my research project could be done in a period of time. Hence, I am grateful and honestly thankful to all.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ABSTRACT

Digital payment can also be said to be a combination of mobile payment systems that allows users to pay their purchase using just their smartphones. Bank Negara Malaysia has adopted more than 30 e-wallet licenses in Malaysia. They believe that digital payment have big potential in changing Malaysia into a cashless society. Research shows that the adoption of the cashless payment is still very low among consumers in Malaysia. Past studies in digital payment usually focus more on the factors that successfully adopted the usage of cashless payment but not much research was on the barriers that affect the adoption of digital payment. Further studies of these issues need to be investigated to help improve the adoption of digital payment to lead Malaysia to a more technological world. Hence, the study used Innovation Resistance Theory such as usage barrier, value barrier, risk barrier and tradition barrier. The target respondent of this research is Generation Z. The sampling that is used is purposive sampling and voluntarily response sampling. This research used the survey questionnaires to let the respondent answer through google form for the respondent to answer anytime and anywhere with their smartphones. The Krejcie and Morgan Formula was used and the result shows that 384 respondents will be needed in this research. Hence, the researcher used 4 weeks to collect the data and use the SPSS output source to analyze the data. The research showed that all hypothesis testing of the independent variable is accepted and the most significant barrier is the risk barrier. In conclusion, the Innovation Resistance Theory has been applied in the research and all objectives of the research: **"*To identify the barriers that affect the adoption of digital payment*"**; **"*To determine how the barriers are affecting the adoption of digital payment*"** and **"*To investigate the most significant barrier that affects the adoption of digital payment*"** are successfully conducted.

Keyword: Digital Payment, Innovation Resistance Theory, Barriers

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

ABSTRACT

MALAY VERSION

Pembayaran digital juga boleh dikatakan sebagai gabungan sistem pembayaran mudah alih yang membolehkan pengguna membayar pembelian mereka hanya menggunakan telefon pintar mereka. Bank Negara Malaysia telah mengguna pakai lebih daripada 30 lesen e-dompet di Malaysia. Mereka percaya bahawa pembayaran digital mempunyai potensi besar dalam mengubah Malaysia menjadi masyarakat tanpa tunai. Penyelidikan menunjukkan bahawa penggunaan pembayaran tanpa tunai masih sangat rendah dalam kalangan pengguna di Malaysia. Kajian lepas dalam pembayaran digital biasanya lebih menumpukan kepada faktor-faktor yang berjaya menerima pakai pembayaran digtial tetapi tidak banyak kajian mengenai halangan yang mempengaruhi penggunaan pembayaran digital. Kajian lanjut mengenai isu ini perlu disiasat untuk membantu menambah baik penggunaan pembayaran digital untuk membawa Malaysia ke dunia yang lebih berteknologi. Oleh itu, kajian menggunakan "Innovation Resistance Theory" seperti halangan penggunaan, halangan nilai, halangan risiko dan halangan tradisi. Sasaran responden kajian ini ialah Generasi Z. Persampelan yang digunakan ialah persampelan bertujuan dan persampelan tindak balas secara sukarela. Penyelidikan ini menggunakan soal selidik tinjauan untuk membolehkan responden menjawab melalui borang google untuk responden menjawab pada bila-bila masa dan di mana sahaja dengan telefon pintar mereka. Formula Krejcie dan Morgan telah digunakan dan keputusan menunjukkan bahawa 384 responden akan diperlukan dalam penyelidikan ini. Oleh itu, pengkaji menggunakan 4 minggu untuk mengumpul data dan menggunakan sumber output SPSS untuk menganalisis data. Kajian menunjukkan bahawa semua ujian hipotesis pembolehubah bebas diterima dan halangan yang paling ketara ialah halangan risiko. Kesimpulannya, "Innovation Resistance Theory" telah digunakan dalam penyelidikan dan semua objektif penyelidikan: "***Untuk mengenal pasti halangan yang mempengaruhi penggunaan pembayaran digital***"; "***Untuk menentukan cara halangan mempengaruhi penerimaan pembayaran digital***" dan "***Untuk menyiasat halangan paling ketara yang menjejaskan penggunaan pembayaran digital***" berjaya dijalankan.

Kata kunci: Pembayaran Digital, "Innovation Resistance Theory", Halangan

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

TABLE OF CONTENT

PART 1

LIST	PAGE
COVER	-
DECLARATION OF SUPERVISOR AND PANEL	i
DECLARATION OF ORIGINAL WORK	ii
TOPIC	iii
DEDICATION	iv
ACKNOLEDGEMENT	v
ABSTRACT	vi
ABSTRACT (MALAY VERSION)	vii

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

TABLE OF CONTENT

PART 2

1.0 CHAPTER 1 1

1.1 BACKGROUND 1
1.2 PROBLEM STATEMENT 3
1.3 RESEARCH QUESTION 4
1.4 RESEARCH OBJECTIVE 4
1.5 SCOPE OF RESEARCH 5
1.6 RESEARCH SIGNIFICANCE 5
1.7 LIMITATION OF THE RESARCH 6
1.8 DEFINITION OF VARIABLE 6
1.8.1 DEPENDENT VARIABLE 6
1.8.2 INDEPENDENT VARIABLE 7
1.9 SUMMARY 8

2.0 CHAPTER 2 9

2.1 LITERATURE REVIEW 9
2.1.1 DIGITAL PAYMENT 9
2.1.2 BARRIERS TOWARDS DIGITAL PAYMENT 10
2.1.3 INNOVATION RESISTANCE THEORY 10
2.1.4 USAGE BARRIER 11
2.1.5 VALUE BARRIER 12
2.1.6 RISK BARRIER 13
2.1.7 TRADITION BARRIER 14
2.2 HYPOTHESIS DEVELOPMENT 15
2.2.1 HYPOTHESIS 1: USAGE BARRIER 15
2.2.2 HYPOTHESIS 2: VALUE BARRIER 15
2.2.3 HYPOTHESIS 3: RISK BARRIER 15
2.2.4 HYPOTHESIS 4: TRADITION BARRIER 15
2.3 CONCEPTUAL FRAMEWORK 16
2.4 SUMMARY 17

3.0 CHAPTER 3 18

3.1 RESEARCH DESIGN 18

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

3.1.1 EXPLANATORY RESEARCH 18
3.2 METHODOLOGICAL CHOICE 18
3.2.1 QUANTITATIVE METHODOLOGIES 18
3.3 SOURCES OF DATA 19
3.3.1 PRIMARY DATA 19
3.3.2 SECONDARY DATA 19
3.4 POPULATION 20
3.5 SAMPLING DESIGN 20
3.5.1 PURPOSIVE SAMPLING 20
3.5.2 VOLUNTARY RESPONSE SAMPLE 21
3.6 SAMPLE SIZE 21
3.7 RESEARCH STRATEGY 22
3.7.1 QUESTIONNAIRE DESIGN 22
3.8 LOCATION 24
3.9 DATA ANALYSIS 25
3.9.1 DESCRIPTIVE ANALYSIS 25
3.9.2 INFERENTIAL ANALYSIS 25
3.10 SUMMARY 27
4.0 CHAPTER 4 28

4.1 DESCRIPTIVE ANALYSIS 28
4.1.1 DEMOGRAPHIC PROFILE 28
4.1.2 DESCRIPTIVE STATISTIC 36
4.2 INFERENTIAL TABLE 43
4.2.1 RELIABILITY TEST 43
4.2.2 PEARSON CORRELATION COEFFICIENTS 45
4.2.3 MULTIPLE LINEAR REGRESSION 47
4.2.4 HYPOTHESIS TESTING 51
4.3 SUMMARY 55
5.0 CHAPTER 5 56

5.1 DISCUSSION OF MAJOR FINDING 56
5.1.1 OBJECTIVE 1 56
5.1.2 OBJECTIVE 2 57
5.1.3 OBJECTIVE 3 62
5.2 IMPLICATION 63

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

5.2.1 MANEGERIAL IMPLICATION 63
5.2.2 THEORITICAL IMPLICATION 66
5.3 LIMITATION 66
5.4 RECOMMENDATION 67
5.5 CONCLUSION 68
REFERENCE 71

APPENDIX 75

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF TABLES

Table 1: Formula of Krejcie and Morgan Formula 22

Table 2: Cronbach Alpha Coefficient Range 26

Table 3: Equation 27

Table 4: Gender 29

Table 5: Age 30

Table 6: Education 31

Table 7: Digital Payment User 32

Table 8: Duration Using Digital Payment 33

Table 9: Spending in Digital Payment 34

Table 10: Purpose of Digital Payment 36

Table 11: Digital Payment 37

Table 12: Usage Barrier 38

Table 13: Value Barrier 39

Table 14: Risk Barrier 41

Table 15: Tradition Barrier 42

Table 16: Reliability Analysis 43

Table 17: Cronbach Alpha in Research 44

Table 18: Pearson Correlation Coefficient 45

Table 19: Pearson Correlation Coefficient in Research 47

Table 20: MLR Summary 47

Table 21: ANOVA Table 48

Table 22: Coefficient 49

Table 23: Formula of Coefficient 50

Table 24: Coefficient in Research 50

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Table 25: Hypothesis Testing in Research.....54

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF FIGURES

Figure 1: Conceptual Framework from Ram and Sheth 16

Figure 2: The Krejcie and Morgan Formula 21

Figure 3: Likert Scale 23

Figure 4: Melaka 24

Figure 5: Pearson Correlation Coefficient 26

Figure 6: Gender 28

Figure 7: Age 29

Figure 8: Education 30

Figure 9: Digital Payment User 32

Figure 10: Duration using Digital Payment 33

Figure 11: Spending in Digital Payment 34

Figure 12: Purpose using Digital Payment 35

Figure 13: Remarks for Pearson Correlation 46

Figure 14: Remarks of Coefficient 49

Figure 15: Hypothesis for Usage Barrier 51

Figure 16: Hypothesis for Value Barrier 52

Figure 17: Hypothesis for Risk Barrier 52

Figure 18: Hypothesis for Tradition Barrier 53

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF APPENDICIES

Appendix 1: Gantt Chart 1 75

Appendix 2: Gantt Chart 2 75

Appendix 3: 384 Respondents 75

Appendix 4: Survey Section A (Demographic Detail) 76

Appendix 5: Survey Section B (Digital Payment) 77

Appendix 6: Survey Section C (Barriers In Adopting Digital Payment) 77

Appendix 7: Survey Section C Part II 78

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

LIST OF ABBREVIATIONS

DIGITAL PAYMENT	**DP**
USAGE BARRIER	**UB**
VALUE BARRIER	**VB**
RISK BARRIER	**RB**
TRADITION BARRIER	**TB**

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

1.0 CHAPTER 1

INTRODUCTION

Under this section, the general overview of the research study would be presented. Additionally, this section will describe the background, research problem, research objective and research questions of the resistance to adopting digital payment.

1.1 BACKGROUND

New technologies have opportunities in developing new innovations that can change a human's daily lives especially in the ecommerce marketplace that is growing rapidly (Dahlberg and Zmijewska, 2019). Also, technology development and growth has evolved from traditional credit card payment methods to enabling customers to make payments using mobile devices (Dahlberg and Zmijewska, 2019). Smartphones now are not only for communicating or playing games, but also to perform financial services such as paying for physical products, service and bills (De Kerviler, 2019).

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

From January 2020, all point of sale (POS) terminals will be required by Visa or MasterCard to accept cashless transactions (Lim, 2020). Innovation in mobile payment will revolutionize these traditional methods by using wireless and other communication technologies (Lim, 2020).

Digital payments are not only cards such as MasterCard or Visa, but also include contactless payment in a mobile phone such as E-wallet, Shopee Pay and Boost (Rathore, 2019).

Other than that, the introduction of multifunctional mobile gadgets, wireless communications and payment systems has transformed the way transactions are done in the real world other than cash (Seetharaman and Kumar, 2020). In Malaysia,

various digital payment systems have been introduced for Malaysians to choose from. For example, digital payment includes E-wallet, Grab Pay, Boost, Shopee Pay and other more. They are known as a payment mechanism and saves the users personal information (Swilley, 2021). All data in the digital wallet is encrypted which improves security. Therefore, a backup option is necessary to recover loss data (Rathore, 2019).

Next, digital payment can also be said to be a combination of mobile payment systems that allows users to pay their purchase using just their smartphones. All purchases can be paid instantly with convenience (Peterson, 2020). Google captured an essence stating that "The past thousand years, people have changed the way to pay from coins to paper money and now to plastic cards". Hence, digital payment has become a significant payment method in the technology world.

Furthermore, Bank Negara Malaysia has adopted more than 30 e-wallet licenses in Malaysia. They believe that e-wallet have big potential in changing Malaysia into a cashless society (Yunus, 2019). However, past research stated that 80% of the Malaysians are still using cash in hand while only 20% of the transactions in Malaysia are conducting digital payments (Yunus, 2019). Thus, results show that adoption in digital payment is still very low. This is because cash still plays a significant role where Malaysians prefer with the traditional method for payment because they think it is safer that they hold it in hand (Oreg, 2020).

In conclusion, digital payment brings many benefits to the users because it is a fast and easy way to make a payment without holding cash in hand (Taylor, 2018). However, technological innovations can also face challenges which become innovation resistance behaviour of the people in Malaysia (Kleijnen, 2019). As a

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

result, barriers to consumers in adopting digital payment have become a major issue for Malaysia to upgrade to the cashless society (Klejinen, 2019).

1.2 PROBLEM STATEMENT

Digital payment brings many benefits to the users because it is a fast and easy way to make a payment without holding cash in hand (Taylor, 2018). However, technological innovations can also face challenges which become innovation resistance behaviour of the people in Malaysia (Kleijnen, 2019). As a result, barriers to consumers in adopting digital payment have become a major issue for Malaysia to upgrade to the cashless society transaction.

The study of cashless payment has become a major current research topic in Malaysia (Lim, 2020). Over the past decades, the governments have introduced and encouraged people to adopt cashless payment.

Due to the growth of technology, more and more people are relying on technology. Nowadays, everything in life is surrounded with technology. For example, due to the pandemic, the adoption of cashless transactions has become significant to the world to avoid physical touch for all kinds of payment such as bills and grocery. Digital payment has slowly replaced the role of traditional payment methods (Shin, 2020).

Research shows that the adoption of the cashless payment is still very low among consumers in Malaysia (Noordin. 2019). Less than half of the population of people in Malaysia have chosen to use digital payment as the transaction. Hence, the adoption of cashless payment is still very low in Malaysia (Noordin, 2019).

One main issue of Malaysians not adopting digital payment is the lack of trust towards the technology (Sahut, 2018). Many people do not trust the cashless payment method like E-wallet or WeChat Pay, they prefer cash in hand because

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

they can see the money and feel secure (Sahut, 2018). Next, some generations such as elderly people still do not understand or do not accept the growth of technology because it is hard to learn for them. Hence, the technology gap had appeared.

In conclusion, past studies in cashless payment usually focus more on the factors that successfully adopted the usage of cashless payment but not much research was on the barriers that affect the adoption of cashless payment. Hence, further studies of these issues need to be investigated to help improve the adoption of cashless payment to lead Malaysia to a more technological world.

1.3 RESEARCH QUESTION

As the gap is the adoption of digital payment in Malaysia, the aim of this research is to analyze the barriers towards the adoption of digital payment. Hence, the research question has been conducted:

1. *What are the barriers that affect the adoption of digital payment?*
2. *How do these barriers affect the adoption of digital payment?*
3. *What is the most significant barrier that affects the adoption of digital payment?*

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

1.4 RESEARCH OBJECTIVE

As the gap is the adoption of digital payment in Malaysia, the aim of this research is to analyze the barriers towards the adoption of digital payment. Hence, the research objective has been conducted:

1. *To identify the barriers that affect the adoption of digital payment.*
2. *To determine how the barriers are affecting the adoption of digital payment.*
3. *To investigate the most significant barrier that affects the adoption of digital payment.*

1.5 SCOPE OF RESEARCH

To fulfill this research, the target audience are citizens in Malaysia who are Generation Z. This generation was born between 1996 until 2012 and is currently between 9 and 26 years old. However, since some of the Generation Z are still young, this study will only target Generation Z who are age 15 above (2007 above). This is because this generation of people will start to use money in their lives such as paying for bills, foods and grocery.

Through the survey, the research can discuss and understand the barriers towards them adopting digital payment so the digital payment service can improve better in their functions and service that helps lower the possible adoption barriers that stops Malaysians from using digital payment. Hence, Malaysia can quickly put their foot into the cashless society.

1.6 RESEARCH SIGNIFICANCE

The goal of the research is to understand the barriers in adopting digital payment to develop better services which provide distinct advantages to compete in the payment method market. This allows consumers as digital payment users to more comfortably choose a more user-friendly payment method, allowing them to recognize and evaluate the utility of the digital payment. As a result, it is hoped that the adoption of digital payment will improve the standard of living in Malaysia. Hence, the government wishes to achieve the aim of forwarding Malaysia to a cashless society.

Furthermore, Bank Negara Malaysia is slowly achieving its blueprint goal of building a financial sector 2020 that supports high income money and high value added. Also, many merchants such as restaurants, shopping malls and small businesses are providing cashless transaction services where consumers can just

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

scan for transactions. Hence, digital payment can foster the brand proposition of these merchants by providing customers with an enhanced payment experience.

In conclusion, the study has adopted the resistance innovation theory to understand what types of barriers that exist and block the adoption of digital payment.

1.7 LIMITATION OF THE RESARCH

The research is only focus on the Melaka area. Next, the research only discussed the consumer perspective. Also, the research focus on the Generation Z. Lastly, the research focus on only 4 independent variables (usage barrier, value barrier, risk barrier and tradition barrier). More explanation is discussed in the limitation part (Chapter 5).

1.8 DEFINITION OF VARIABLE

The dependent variable in the research is digital payment and the independent variables are usage barrier, value barrier, risk barrier and tradition barrier.

1.8.1 DEPENDENT VARIABLE

The dependent variable is the effect. Its value depends on changes in the independent variable

a. DIGITAL PAYMENT

Digital payment refers to where consumers use new technology as their new way of paying for foods, bills and grocery. These digital payments include Touch and Go E-wallet, Boost and Shopee Pay. For example, when consumers want to pay for their purchase item, they just need to click the pay button or let the cashier scan the barcode and the transaction is complete.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

1.8.2 INDEPENDENT VARIABLE

The independent variable is the cause. It value is independent of other variables in the study.

a. USAGE BARRIER

Usage barrier occurs when the new technology is incompatible with an existing workflow and needs to be changed to accept innovation. For example, when digital payment is not functioning properly, it causes consumers to dislike using it which leads to a barrier.

b. VALUE BARRIER

Value barrier occurs when innovation does not provide a convincing performance-to-price value or the performance does not match with the expectation. For example, when digital payment does not meet consumers' high expectations, it causes consumers to be not interested in using digital payment for paying.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

c. RISK BARRIER

Risk barrier occurs when an innovation faces issues where security in the innovation does not give safety such as third party accessing personal information. For example, when digital payment brings many harms to a consumer, consumers will be afraid to use digital payment methods.

d. TRADITION BARRIER

Tradition barrier occur when an innovation is replacing fixed routines of a process from an old style to a new style in the new generation. For example, when a consumer is not willing to learn or