# THE RISE OF BUY-NOW-PAY-LATER (BNPL) SERVICE IN MALAYSIA

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### BY

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A final year project submitted in partial fulfillment of the requirement for the degree of

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## UNIVERSITI TUNKU ABDUL RAHMAN

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#### DECLARATION

We hereby declare that:

- (1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the FYP.
- (4) The word count of this research report is <u>17813</u>.

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No.	Original Word	Abbreviations
1	Buy Now Pay Later	BNPL
2	Intention to Adopt BNPL	IA
3	Perceived Usefulness	PU
4	Perceived Ease of Use	PEOU
5	Perceived Risk	PR
6	Social Influence	SI
7	Financial Literacy	FL
8	Income Level	INC
9	Performance Expectancy	PE
10	Effort Expectancy	EE
11	Technology Acceptance Model	TAM
12	Theory of Planned Behavior	TPB
13	Use of Technology	UTAUT
14	United State	US
15	United Kingdom	UK
16	Point-of-Sales	POS
17	Theory of Reasoned Action	TRA
18	Generation Y	Gen Y
19	Generation Z	Gen Y
20	Gross Domestic Product	GDP
21	Significant	Sig.

#### LIST OF ABBREVIATIONS

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#### Preface

With the rapid growth of e-commerce and the increasing popularity of BNPL services, understanding the factors that influence the intention to adopt BNPL service are critical for both BNPL service providers and BNPL users. Therefore, the increased usage of BNPL service due to the growing trends required researchers to make a greater emphasis on this topic.

The objective of conducting this study is to examine the factors that influence the intention to adopt the Buy Now Pay Later (BNPL) services in Malaysia. To achieve this goal, we have incorporated various elements along the line of perceived usefulness (PU), perceived ease of use (PEOU), perceived risk (PR), social influence (SI), and financial literacy (FL) to analyse how they influence the intention to adopt BNPL service (IA). As a result, we can delve deeper into the relationship between the independent variables and dependent variables.

Through the execution of this study, our objective is to provide valuable insights that can aid BNPL service providers, users, and online business operators in enhancing their comprehension of the BNPL service. The ultimate goal is to enable the successful implementation of effective improvement and strategic measures. Moreover, this study can establish a foundation for future studies on the relevant topic, while also making a valuable contribution to the advancement of the BNPL service in Malaysia.

#### ABSTRACT

This study is aimed to find out the factors that affect the intention to adopt the Buy Now Pay Later (BNPL) Services in Malaysia. This study is using five factors (perceived ease of use, perceived usefulness, perceived risk, social influence, and financial literacy) to examine their significance to the intention to adopt BNPL in Malaysia by referring to TAM and UTAUT theory. We selected Malaysian citizens who were at the age above 18 years old, including users and non-users of BNPL as our target population. Our study collected 401 responses across Malaysia through online Google Forms and physical distribution of questionnaires. SPSS software is applied to examine the reliability and accuracy of data as well as find out the relationship between the dependent variable and independent variables. There are also various types of analyses, including the Pilot test, Cronbach's Alpha, Pearson Correlation Analysis, and Multiple Regression Analysis are conducted in this study. The result analysis showed that perceived ease of use, perceived usefulness, social influence, and financial literacy have a positive relationship with the intention to adopt BNPL services in Malaysia. However, perceived risk has no significant relationship with the intention to adopt BNPL. Lastly, the study also figured out implications, limitations, and recommendations as references for regulators, researchers, and developers to help them sort out the current situation of BNPL services in Malaysia and the consumer behavior toward BNPL.

## **CHAPTER 1 : RESEARCH OVERVIEW**

## **1.0 Introduction**

Buy-Now-Pay-Later (BNPL) services are still relatively new on the market indicating that this will be a whole new idea towards the study. The first chapter presents a very first taste of the idea for the study as only fewer researchers who concentrate on this topic. The first thing to start will be discussing the research background. The research problems are developed to discover and describe the issues with behavioural intention to adopt BNPL (IA) services. As a result, chapter 1 will include research background, problems, and others. An overview focusing on the study chapter by chapter organisational structure is presented below at the same time. Last but not least, the important ideas from chapter one will be summarised in the conclusion.

## **1.1 Research Background**

It's been a long time since consumer credit was offered. However, given the quick advancements in technology and consumer behaviour, what is innovative are the ways used to issue such credit to consumers. The methods used to provide consumer credit have evolved through time. In the early 1800s, it started with the first form of pawnbroking, instalment selling, providing lending money services, then moved on to the introduction of the hire-purchase system, also known as an instalment plan. Eventually, in the 1950s, came the creation of credit and charge cards (Sng & Tan, 2022).

As a growing portion of human consumption has moved online, new payment options have emerged. When completing the transaction in an online business, customers frequently have the opportunity to select another credit option in addition to the standard debit or credit card payment, which is frequently referred to as BNPL. The first written records of civil law governing debt date back to the Babylonian Empire under Hammurabi, who ruled from 1792-1750 BC, and the first credit cards were created in the United States (US) in 1920, however the idea of credit is a recent invention when it comes to digital implementation. As the new online payment of BNPL is being implemented, this payment method leads people to make payments with the assets that they might not have which provide them the convenience of using it (Nydén, 2021).

There are 2 main ways to differentiate the products, the way that it is offered to the customers is the main method to differentiate it. The first way is, BNPL products which the purchase will be made through fintech are being offered directly to the customers while the second one is, BNPL products which the purchase is being processed during the offer is done through fintech or financial institution that partners with (Alcazar & Bradford, 2021a). BNPL products and services have the advantage of bringing convenience towards users as it can be done without full credit check, which increases the flexibility of the financial option, transparent terms, predetermined repayment schedules, and can enjoy the lower or non-interest fee (Alcazar & Bradford, 2021b).

In addition, with the help of BNPL service, customers can pay for purchases either all at once or over the course of several payments. A lot of e-wallet providers, including Traveloka, OVO, Gojek, Shopee, and others, have embraced the BNPL payment method as of right now. BNPL initially functioned similarly to credit cards, albeit with a smaller access limit for payments made later. Furthermore, most users of credit cards ought to have a reliable source of income and employment. Unlike BNPL, it is not accessible to students and is only used by a small number of people. BNPL laws are far more straightforward and applicable to all sectors of society. Though conceptually and operationally comparable to credit cards, BNPL is more widely available since its requirements and application procedure are less demanding than those for credit cards, with users only needing to produce an ID card (Maurizka, Handayani, & Pinem, 2021).

As of 2020, the BNPL arrangement is the latest vogue. Globally, the BNPL payment method has grown in popularity as a consumer credit. For example for BNPL, Afterpay, it is a BNPL arrangement in Australia which is also a leading service provider. As of 2019, it has attracted more than 2.1 million customers in the US to use it and more than 6,500 retailers have relations of cooperation with it (Sng & Tan, 2022). Based on the data from the United Kingdom (UK) and US, the value of BNPL transactions in December 2021 marks the high records whereby the index value hits 5.9 times and 2.0 times respectively in that month. Besides, these seasonal peaks which are located in December and January align with the dates of Black Friday and Christmas (Guttman-Kenney, Firth & Gathergood, 2022).

From the beginning of the pandemic Covid-19 from March 2020 to April 2020, BNPL market started to grow as UK and US aggregate consumption has fallen owing to lockdown and virus panic. This shows that consumers shift their payment method towards spending online more. Based on credit card data, the rise indicates a shift in the credit card providers' readiness to accept BNPL transactions. This is due to the possibility that the repayment method of BNPL may pose a risk to credit card lenders as well as users (Guttman-Kenney et al., 2022).

In 2018, Traveloka was one of the first firms in Indonesia to provide a BNPL service (Asia, 2021). After the success of Traveloka in introducing the BNPL payment

method, now this method is being followed by many other companies such as OVO, Gojek, Shopee, and others. The reason that BNPL is being accepted by many people is because it is similar to credit cards, but it will give lesser pain to the users as users can pay in instalments. Besides, since banks are not involved in BNPL, users can employ the BNPL payment system although they might not be in a position to borrow credit. Thus, BNPL then becomes a new credit system that attracts a lot of users in the Indonesian market (Pratika, Salahudin, Riyanto & Ambarwati, 2020).

BNPL is special because it is the only unsecured-lending asset payment method that reaches double digit growth in the market over the past two years. Other than that, BNPL products vary due to credit requirements, credit limits, business partnerships and associated fees, but a common theme among BNPL vendors is an intentional improvement in the user experience of Point-of-Sales (POS) financing through the simplicity and clarity of POS. In short, while using BNPL products, users do not need to apply and manage the credit card as BNPL only focuses on consumer goods. This causes several payment methods that have had a huge growth in recent years such as PayPal Pay-in-4, Affirm, Afterpay, Klarna, and others (Lux & Epps, 2022).

Following the Covid-19 restrictions, e-commerce and the usage of other payment methods increased dramatically. With BNPL solutions reporting a 215% rise during the months of January and February 2021, 844 billion dollars was spent online between March 2020 and February 2021 in the UK. Due to limitations, consumers were forced to turn to online shopping for necessities; nonetheless, many customers commented that this gave them the opportunity to experience new payment options during the lockdown, which served as a transitional time. In the first month of the pandemic, 56 percent of users globally stated that they had attempted other payment methods, according to statistics from Paysafe. This seems to be particularly the case in the UK, where 89 percent of users there said they feel comfortable using PayPal and another 31 percent said the same about digital wallets (Nicolaou, 2022).

According to Zahiid (2022), the Covid-19 pandemic has led to a fast expansion of BNPL services. Based on the research and market, a company that analyses retail trends and shows that BNPL payments in Malaysia might increase double annually to hit RM2.65 billion in 2022. Due to the possibility that using BNPL services would become one of Malaysia's foreseeable new trends of payment methods, thus IA will be studied.

Due to technological advancements, numerous BNPL service providers have emerged in the market of Malaysia. By referring to appendix 1.1, one of the BNPL providers, Hoolah, is a company that produces multiple series products like electronic products, accessories and more. Secondly, Grab Pay does provide services like Grab Express Delivery, Grab food, Grab Mart order. Not only that, Atome and FavePay later are providing products related to Fashion, Beauty and more. Meanwhile, Spaylater is providing BNPL service for all goods and services except any digital products which are under the deals. In addition, Split is offering Shariah-compliant products for the consumers. However, all the BNPL service providers are not charging any processing fee during the transaction except Spay later will apply 1.5% a month on total order amount while conducting BNPL service (imoney, 2022).

### **1.2 Research Problem**

It is significant to highlight that BNPL's rapid growth raises concerns even as it is still challenging to determine a potential user's eligibility and, consequently, their capacity to repay the loan. Regulators and banks have yet to intervene in the BNPL market, at least not significantly, but they may be necessary if BNPL solutions are to become long-term lucrative and sustainable (Alvarez, 2021). For instance, Malaysia banks have not yet intervened in BNPL because they are concerned that Page 5 of 115

it may indirectly affect the credit rating of consumers. If consumers failed to make monthly instalments on time, their credit ratings could be affected as some BNPL operators may disclose this to credit reporting agencies. Consumers' credit reports will contain negative information like late payments history for up to seven years (TheStar, 2022).

Furthermore, BNPL has the potential to increase some stress on household debt as BNPL does not provide client credit information to the regulator in Malaysia. Moreover, BNPL is promoted as being superior to credit cards. Therefore, BNPL surely will increase the level of household debts (Bernama, 2022a). Although BNPL brought convenience to users, it will indulge in their wants and splurge. As a result, it is easy to succumb to the lure of rapid satisfaction among consumers, which implies that purchases made with this attitude are more likely to result in unhealthy spending (Subramaniam, 2021). Thus, this will lead to increased consumer's impulsive buying behaviour.

According to Aziz & Kassim (2020), one third of Malaysians consider their financial literacy (FL) to be low. This indicates that some Malaysians may use BNPL to freely spend in order to purchase anything they want which will worsen Malaysia's domestic debt issue. According to Bernama (2022b), Malaysia household gross domestic product (GDP) ratio was estimated around 89% which can be considered as the highest GDP result compared to other Southeast Asia countries. Indirectly, Malaysia's household debt has exceeded the debt of the federal government after increasing from RM1.27 trillion to RM1.34 trillion (Bernama, 2022b).

In the future, bankruptcy will be a significant problem as a result of BNPL's actions. Bankruptcy is the term used to describe the legal situation of a person or other entity that is unable to fulfil its debts to creditors (Rahim, Munir, Zainal, & Kassim, 2022). Actually, the reason behind the emergence of credit card debt is due to consumer choices to optimise their utility within budget limitations, as they can effortlessly bring future resources, such as income, into the present to finance immediate spending through borrowing (He, Zhu, Zhang & He, 2016). Furthermore, a lot of young consumers are greatly influenced by the philosophy of "buy now, pay later" to decide to live in the moment and pay off their debt later. This thinking demonstrates how some credit card users seek rapid satisfaction, which motivates them to overuse their cards to pursue materialistic pleasure in life (Zainudin, Mahdzan, & Yeap, 2019). Because the BNPL feature is similar to credit cards in that it allows users to make purchases now while still incurring interest costs rather than waiting until they have enough money to make the purchase later, this suggests that BNPL customers may also experience bankruptcy. The sole distinction is that BNPL does not levy interest.

Although BNPL serves many retailers, not all merchants believe it is best. It costs money to accept BNPL as a form of payment. A BNPL transaction costs retailers between 1.5% and 7% of the purchase price, including taxes, whereas a regular debit or credit card transaction costs between 1% and 3%. Therefore, merchants should evaluate whether BNPL products are appropriate for the products they are selling and whether minimum transaction value is required to justify offering BNPL as a payment option (Alcazar & Bradford, 2021b).

## **1.3 Research Objective**

### **1.3.1 General Objectives**

The purpose for this study is to analyse several factors that lead to the intention to adopt BNPL (IA).

## **1.3.2 Specific Objectives**

- To investigate the relationship between perceived usefulness (PU), perceived ease of use (PEOU), social influence (SI), perceived risks (PR), financial literacy (FL) and intention to adopt BNPL (IA).
- 2. To investigate the differences among gender, income level (INC), and age with the IA, PU, PEOU, PR, SI, FL.

## **1.4 Research Questions**

- 1. How does PU, PEOU, SI, PR, and FL affect the IA service?
- 2. Are there any differences among gender, INC, and age with the IA, PU, PEOU, PR, SI, FL?

# **1.5 Research Significance**

In the business sector, it is significant because companies that provide goods and services can adopt BNPL as a form of payment. The findings enable businesses insight into how consumers intend to use BNPL, enabling them to better personalise their services to match with customers' demands and expectations. Through understanding and analysing consumers' demand for BNPL, it enables them to discover needs for more effective online payment ways. Enterprises can apply the insights from this discovery to develop successful and impactful strategies in the field of advanced technology. In order to stay on top of the issue, the companies may make improvements on their current strategy using the knowledge gained from this study's findings. A broad vision for the companies who aim to create or implement the BNPL software will be created with the help of this study. The companies are able to increase BNPL utilisation if they follow the data analysed from this study. Therefore, BNPL service providers can prioritise the development of BNPL facilities based on the variables such as PU, PEOU, PR, SI, FL to encourage the adoption of BNPL service.

In addition, our study on BNPL service in Malaysia will also benefit the Malaysian government to promote the development of our economy. According to the Economics department of Bank Negara Malaysia, the development of the digital sector is critical for implementing policies that will stimulate Malaysia's digital economy. When every citizen is familiar with the benefits of BNPL service, it will lead to an increase of service adoption and eventually make Malaysia more competitive globally. The most common benefit that is brought by BNPL is it provides low interest rates and fees compared to traditional credit cards. This advantage not only comforts the millennials who have less spending power but also for the other generation of people who are facing the same problem. BNPL provides a route for millennials to get the items that are expensive but with staggered payments. Other than that, the no-restriction of BNPL is attracting the millennials as it is much more convenient and can be controlled easily compared to the traditional credit cards (Chiappini, 2022).

This study is also significant to regulators of Malaysia to arrange the BNPL schemes in future. Regulators can have a deep understanding of the impact of BNPL and come out with a strict regulation to guide the usage of BNPL in order to prevent the overspending of consumers. As a result, rules and regulation can be introduced in order to avoid the conflict between BNPL service and the credit rating system (Wani, Samsudin & Zaini, 2022).

Lastly, it is important for people to know about this industry which is BNPL as it is one of the trends and is evolving at a fast pace. Meanwhile from the past findings, companies are trying to come out with new products and services with the base of BNPL. Even though some of the products and services are being found not matching with the models discussed. As the BNPL is a trend, it is highly suggested to be studied as BNPL is one of the responses for traditional credit cards. In the business perspective, BNPL can help in increasing the average order value, attracting new customers, promoting the transformation of shopping cart and the user participation and customer retention rate. This is the benefit for people who want to obtain a credit card and control the money themselves (Alvarez, 2021).

The findings of this study hold implications for future investigators. They are able to use this study as an example to continue their own study. The outcome of this investigation provides future researchers with knowledge and insight to aid in the development and evaluation of more data on the factors influencing Malaysian consumers' propensity to embrace BNPL. Furthermore, by analysing the factors of adoption of BNPL, it can serve as a reference for similar studies by future researchers to make recommendations. They could utilise the study's data and findings as a helpful benchmark or point of comparison for their own study. From the viewpoint of consumers, our study on BNPL service in Malaysia will help consumers better understand the importance of FL. As the adoption of BNPL has grown steadily in Malaysia, it is critical that consumers manage their money wisely. After conducting this study, they will be able to acquire financial education and implement the skills or experience when using BNPL service. Consumers can properly plan their expenditures, lowering the likelihood of debt accumulation. Due to the decline in consumer debt, it will also immediately reduce the problem of Malaysia's domestic debt.

## **1.6 Conclusion**

The first chapter as an introduction shows the overview for the study. The subtopics such as background, problems, objectives, questions, as well as the hypothesis will be included in the study. With this, researchers will have a basic knowledge towards BNPL services. For Chapter 2, which is literature review will be discussed.

## **CHAPTER 2 : LITERATURE REVIEW**

## 2.0 Introduction

In this part, discussion among the elements such as theories and review of variables including dependent variable, Intention to adopt BNPL (IA), and independent variables of Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Perceived Risk (PR), Social Influence (SI), and Financial Literacy (FL). Other than that, this chapter will propose a conceptual framework and hypothesis development. The chapter will begin with the theory of embracing new technology. For the theory part, there will be a total of two theories to be carried out and discussed. Furthermore, the variables that could influence people's IA. In the section of the review of variables, six variables must be recognised. Moreover, the elaboration of the hypotheses will be followed by a demonstration of the proposed conceptual framework.

## **2.1 Underlying theories**

#### 2.1.1 Technology Acceptance Model (TAM)

According to the theory, PU and PEOU are the main factors affecting user's attitude towards the behavioural intention to adopt new products or new technology. Page 12 of 115 However, a significant result was found between PU and acceptance of mobile services such as Buy-Now-Pay-Later (BNPL) (Koenig-Lewis, Marquet, Palmer, & Zhao, 2015). Moreover, TAM is generally used to investigate the impact of technology on user behaviour. TAM focuses on PU and PEOU towards the intention of consumers to use a technology. According to Liu, Chen, Sun, Wible & Kuo (2010), the intention to use a technology will be affected by both PU and PEOU from the TAM model. Thus, the TAM model will be a great predictor to predict the intention of adoption for BNPL which is a new and advanced technology. TAM also suggested that when a new technology or software is being launched in the market, many factors will affect the decision of adopting it. In this case, both PU and PEOU will be the key factors that influence consumers in adopting the information of the new technology (Alwi, Salleh, Razak, & Naim, 2019).

### 2.1.2 Use of Technology (UTAUT)

UTAUT comprises four themes, namely, performance expectancy (PE), effort expectancy (EE), SI, facilitating condition (FC) and encouraging behaviours that have an impact on people's technological intentions and usage. However, among the themes which are PE, EE, SI, and FC towards the intention to adopt, SI will be the main discussed topic in this session. The reason behind is due to the SI will lead to another variable that will affect the intention to adopt. From the case, SI refers to the consumers that influential individuals or groups are encouraging them to utilise electronic payment systems when conducting transactions. The influential individuals or groups may include families, couples, or organisations. Facilitating conditions can be described as how consumers perceive the resources and assistance available for utilising technology (Junadi<sup>a</sup>, 2015).

Several studies have utilised the UTAUT framework to examine the acceptance of mobile payment methods, and they have discovered the model to be valuable. The relationship of SI towards the attitude of adopting near field communication technology is positively significant. However, intention to adopt could be predicted by both security and trust. With this, the PR is being considered as security and trust could be a predictor for the intention to adopt. Furthermore, the impact of SI on intention was substantial, indicating that the views of peers play a crucial role in the adoption of mobile wallet services. Nevertheless, SI did not demonstrate a direct association with behavioural intention; instead, it acted as a moderator on PR. Likewise, their examination of BNPL adoption, using the UTAUT model, revealed no substantial correlation between SI and intention. Nonetheless, resulting PR has an insignificant impact on intention to adopt (Koenig-Lewis et al., 2015).

With appropriate modifications, TAM and UTAUT could serve as a strong theoretical basis for comprehending the adoption of BNPL payment methods. They extend beyond technical aspects and concentrate on social and individual factors that impact the consumer decision-making process. For instance, TAM can be expanded by taking into account relevant factors, such as antecedents or moderators that influence both PU and PEOU (Koenig-Lewis et al., 2015).

## **2.2 Review of Variables**

### 2.2.1 Intention to adopt Buy-Now-Pay-Later

Nowadays, most of the retailers and consumers are willing to make payments by using digital platforms as the use of smartphones and faster internet keep increasing, thus this has accelerated the growth of the BNPL sector. The BNPL market is also predicted to expand because many small and medium-sized firms in developing nations like China, Japan and India increasingly use BNPL services as well as online payment methods. For instance, compared to the same period in 2020, the rate of digital payments transactions on Razorpay in India had improved by 76 percent in the three months of January, February and March of 2021 (Abdellaoui & Tzili, 2021).

Indonesia is another example of the expansion of BNPL. In Indonesia, BNPL is the second most popular fintech product, with around 45 percent of the usage rate in the market. The low ownership of bank credit cards is one of the factors contributing to the rise of consumers adopting BNPL services. There were 17.61 million credit cards in use as of February 2020, according to Bank Indonesia. When compared to Indonesia's entire population, the figure of credit card usage is quite small. Due to the more stringent standards, the majority of people frequently find it difficult to acquire credit cards. Therefore, BNPL is preferred by consumers because of its flexibility, manageable payments and lower interest rate. Compared to credit cards, BNPL requires lesser requirements and a quicker registration as well as activation process. Additionally, BNPL services also allows consumers to make instalment payments via online or ecommerce transaction accounts before the due date, which makes BNPL services even more user-friendly and convenient (Maurizka et al., 2021).

The main BNPL providers provide solutions that charge a fee every transaction to the merchant. There are no further fees incurred by the consumer for the credit they receive. Consumers are only subject to extra costs if they fail to meet the payment deadline. The entry point for both large and small transactions has been lowered as a result of the absence of additional fees (Grøtan & Hjorthol, 2021). Furthermore, small and medium-sized businesses can benefit from BNPL compared to credit card payment which is considered as one of the traditional transaction mechanisms (Koenig-Lewis et al., 2015). Besides that, BNPL provides quick access to credit, which is a regular step in the checkout process, and offers zero-interest rates make BNPL become an attractive option for splitting a transaction into instalments basis over a short period of time (Alvarez, 2021).

BNPL arrangements cater to the underbanked gig economy. Gig economy workers engage in short-term, on-demand job assignments and are vulnerable to irregular income due to the seasonal nature of such work. An inconsistent cash flow for such gig economy workers may result in delays for essential purchases and living expenses. It may cause them to be underbanked, as they may not qualify for mainstream consumer credit such as credit cards. BNPL arrangements cater to these underbanked demographics, as credit may be extended by some of these arrangements to these gig workers without credit checks (Sng & Tan, 2022). Other than that, merchants stand to benefit from adopting BNPL arrangements too. Consumers may be influenced by BNPL arrangements to be more spontaneous in their purchases and to spend more than they would have before, given that they are now able to make higher-value or time-sensitive purchases more conveniently. Given that merchants are generally paid shortly after the customer's purchase, the merchants will not take on the credit risk arising from BNPL arrangements. This in turn benefits merchants as they are able to grow their businesses and benefit from the increased sales, without having to worry about managing the credit risks of customers (Sng & Tan, 2022).

#### **2.2.2 Perceived Usefulness**

PU in TAM means that the performance of the system can help a person in performing their job more effectively and efficiently. People would like to adopt

BNPL services due to their effectiveness in financial transactions. This system presents a high level of PU that creates a positive user-performance relationship. Besides, to achieve PU, it needs to provide benefits such as time-saving, effectiveness, efficiency, and relevant significant benefits. Furthermore, the PU of BNPL services shows a positive relationship to the IA. Meanwhile, the system that did not provide useful help to consumers to perform tasks are most likely to be disadvantageous (Alwi et al., 2019). However, researchers also found that PU is important in increasing the IA (Koenig-Lewis et al., 2015). Based on Jiwasiddi, Adhikara, Adam and Triana (2019), PU is also an important factor that affects someone to use BNPL, as even though the idea of BNPL is still new in the society, consumers still decide to use it because of its useful features.

In short, consumers will adopt BNPL service as this service system is effective in enhancing the experience while making payments and for financial transactions (Maurizka et al., 2021). Basically, previous researchers indicate that people will be motivated to use or try a new technology if that technology is useful to their life. This shows that consumers need a reason for them to use a digital payment such as a positive impact towards their life. However, consumers are expecting something once they use BNPL service (Pratika et al., 2020).

#### 2.2.3 Perceived Ease of Use

PEOU can be identified as a sense of utilising a particular system and will be understood and easy to adopt. According to Alwi et al. (2019), there is a positive correlation between PEOU and IA. People are more likely to adopt an invention more frequently when the innovation such as BNPL service looks to be simple to use. It may influence the rate of adoption by individuals to accept an invention if they find it challenging to comprehend and adopt. This is due to the fact that most people, especially beginners, are more likely to adopt a system if they view the system to be simple to use or user-friendly, which might encourage a positive attitude among individuals towards the adoption of the services (Alwi et al., 2019).

Furthermore, the ease-of-use perception can also be interpreted as the degree to which consumers find it simple and convenient to utilise fintech services. PEOU has a role to increase the IA as the ease of use may deliver great experiences for users and cater to their demands. This would encourage more individuals to adopt BNPL as it is easy to understand and apply. On the other hand, if the BNPL is complicated to use, users are more likely to face problems when using it. This might result in users refusing to use BNPL. As a result, one of the key elements that influence consumers' willingness to utilise services is the PEOU. A consumer's willingness to adopt BNPL service might be positively affected by PEOU (Lien, Doan, & Bui, 2020).

According to Pratika et al. (2020), a lot of users have started using the BNPL system to carry out payment transactions that suit their preferences and needs. Although some of the consumers' current financial situation might not be affordable to pay the entire cost of the product or services, the BNPL system's payment technique allows them to purchase products or services immediately and easily without having to worry about needing to make a full amount when purchasing. Typically, only financial businesses provide credit systems that let consumers pay in instalments. However, consumers may simply use the instalment system without having to go through any difficult procedure by using the BNPL system. Therefore, this shows that PEOU is positively correlated with the IA as a payment method when consumers found BNPL suited to their preference and needs.

Consumers will obtain useful information and make easy transactions, enhancing their views of the system's usability when the usage of BNPL is easy. As a result, the notion of usefulness will mostly depend on the perception of easiness. The major reason for technology acceptance is due to its features and the systems' simplicity of use. PEOU has a beneficial influence on the confidence of consumers in ecommerce since it helps them establish positive impressions of the e-vendor in the early stage of embracing online service. A user-friendly website considerably reduces user confusion in the context of e-commerce, improving the transparency of all transactional procedures. A clearly defined and simple to understand process would help in the growth of user confidence in the pay later context. PU is the key element that directly influences the desire of individuals to use BNPL and mediates the impact of PEOU towards the intention of consumers to use BNPL. People use BNPL because it is convenient for payment transactions and has been shown to enhance the shopping experience. Thus, the likelihood of consumers to use BNPL service as the payment type is positively influenced by PEOU (Maurizka et al., 2021).

#### 2.2.4 Perceived Risk

PR can be defined as the likelihood of an event occurring and the potential consequences of that event. As consumers meet uncertainty, they incur risk, which leads to worry about unfavourable outcomes (Maurizka et al., 2021). Because of the higher level of ambiguity involved with services, they are often seen as riskier than products. Prior studies have shown that PR is a key barrier to consumers embracing technologies such as mobile commerce. According to Lu, Yang, Chau & Cao (2011), around 75% of customers are currently concerned about security and transaction concerns. To adopt BNPL payment services, consumers must analyse the uncertainties that are connected with the technology.

The intangible nature of BNPL payment services makes it difficult for potential users to evaluate the service beforehand, leading to concerns about security and
privacy issues. Concern of financial losses may also prevent potential customers from using BNPL payment systems, and financial risk perception may be connected to real losses, reports of weaknesses, or innate risk aversion. As a result, BNPL payment service providers confront the task of developing systems that are simple to use, effective, secure, and dependable. According to study, an individual's PR has a negative influence on their attitude towards utilising online services, as well as their desire to use mobile payment such as BNPL (Koenig-Lewis et al., 2015). Consumer trust is also impacted by PR. Someone's worry about losing money leads them to avoid the dangers of online transactions, therefore the PR will have a negative impact on customers' confidence and discourage them from utilising BNPL (Maurizka et al., 2021).

Although the use of information technology and innovation has become widespread in the financial services business, the risks and possible concerns involved with implementing these systems must not be neglected. The simplicity of registration and the comparatively low interest rates offered by BNPL systems may lead to financial problems for users in the future. Unlike credit cards, which use the 5C concept (character, capacity, capital, economic condition, and collateral) to assure users' ability to pay bills, BNPL systems have low filing requirements, making it difficult to properly monitor the system. Because of the multiple advantages given by the BNPL system, this lack of control might indirectly impact customer behaviour, pushing them to spend more.

#### **2.2.5 Social Influence**

Furthermore, SI pertains to how an individual's adoption of new technology can be influenced by their social connections and surroundings. The study indicates that individuals often seek recommendations and guidance from their social circles instead of relying on marketing efforts, it is because it will alleviate their uncertainties surrounding new technology (Nicolaou, 2022). A person's sociocultural context may have an impact on his or her decision to use BNPL service, according to one definition of SI in this context. Their perspective on innovation may be influenced by their friends, family, or other outsiders. Information and support from one's environment also have an impact on a user's awareness of and intention toward BNPL. Thus, the likelihood of consumers to use BNPL service of the payment type is certainly influenced by social factors (Alwi et al., 2019).

Additionally, when customers see that people in society use BNPL service, they tend to use it. Hence, SI can be an important factor and have a positive impact on customers' intention to use BNPL service. The concept of SI is deeply grounded in theories regarding the acceptance of technology. In general, consumer behaviour theories include the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA). Nonetheless, an argument presented in The Service Industries Journal 543 suggests that the TAM often neglects to consider the social context in which technology adoption occurs. Despite this, social pressure can significantly impact the adoption of new technology. Previous studies have indicated a direct correlation between usage and SI (Koenig-Lewis et al., 2015).

With alternative payment methods being closely related to social contact, social impact as a variable of UTAUT suggests a substantial positive link with the acceptance of fintech by Generation Z (Gen Z) and Generation Y (Gen Y). For instance, when US people' motivations for using APMs were quantified, it was discovered that SI was the most important factor. Most participants were driven to services like Venmo because it enabled the use of their social networks and was the standard way that their peers repaid loans. These empirical results are consistent with the Network Effect Theory, which postulates that when a big proportion of a social group accepts a payment mechanism, their value may rise (Nicolaou, 2022). As a result, one of the things that influences consumers to choose the Pay Later form of payment is social influence. Social impact is utterly important for BNPL

development because most users lack knowledge and experience with the technology and rely on public opinion (Maurizka et al., 2021).

#### 2.2.6 Financial literacy

Performance in presiding over money-related tasks can be reflected through FL, including but not limited to making, protecting, and spending that money (Remund, 2010). FL can be described as knowledge of financial concepts and their ability to accurately interpret financial data. Akbar, Zainal, Basriani & Zainal (2021) mentioned that there is a significant positive correlation between FL and online service adoption. Other than that, the results from other scholars suggested a positive relationship between financial knowledge and the likelihood of adopting all types of fintech services. In other words, financial knowledge positively affects the adoption of all fintech services (Yoshino, Morgon, & Long, 2020).

According to Grøtan et al. (2021), consumers' financial knowledge is most likely negatively correlated with debt-to-income levels, suggesting that the less financial knowledge a person has, the more difficult it is for them to repay their debts. BNPL as a late payment will help reduce the pain of payment for the user, which indirectly creates a feeling of ease of payment, in contrast to payment being treated as an actual debt. However, the users of BNPL lack FL, especially among the younger age group who are technically considered debt. Based on Andarsari & Ningtyas (2019), FL will affect a persons' financial behaviours. Therefore, it is important to have a strong FL to keep the formation of wealth equity. Besides, an individual will be able to make wise decisions on managing money when he or she has good financial knowledge. However, those people with low educational levels rarely make effective choices that can bring better results.

Wagner and Walstad (2019) claim that access to financial education opportunities at different stages of life will achieve better long-term financial behaviours related to maintaining family finances, such as emergency funds, saving for financial goals, investing for income or wealth, and planning for retirement. Moreover, there is past literature which has shown that consumers who really want a present temptation are likely to pay more for it, that is, when they feel a strong immediate desire to spend, they will pay more to accelerate their consumption (Fujita, Trope, Liberman & Levin-Sagi, 2006). Anderloni and Vandone (2010) argue that by keeping an individuals' knowledge of financial transformation is a way to preventively measure debt control as the person can make more responsible and rational decisions.

# **2.3 Proposed Theoretical Framework**



## 2.4 Hypotheses Development

#### **2.4.1 PU and IA**

H<sub>10</sub>: There is no significant relationship between PU and IA.

 $H_{1a}$ : There is a significant relationship between PU and IA.

PU will give a direct impact towards the IA of BNPL according to (Maurizka et al., 2021). Besides, PU also has a significant impact on consumer acceptance to adopt Fintech services such as BNPL based on the study from (Alwi et al., 2019). Additionally, Koenig-Lewis et al. (2015) corroborates that a greater PU of the BNPL service results in a stronger intention to use it. This is a significant aspect in clarifying the intention to use BNPL, as it enhances the efficiency of payments, thereby exerting a favourable influence on the decision to adopt BNPL service.

#### 2.4.2 PEOU and IA

H<sub>20</sub>: There is no significant relationship between PEOU and IA.

H<sub>2a</sub>: There is a significant relationship between PEOU and IA.

Alwi et al. (2019) found that consumers' willingness to use fintech services for payments is positively influenced by the PEOU. PEOU is significantly related to

consumers' IA in Malaysia. A variety of studies have shown that a system that is easily learned and managed will satisfy individuals and increase their desire to use it. (Childers, Carr, Peck & Carson, 2002). Also, some studies have confirmed that PEOU has a strong effect on PU (Gefen, Karahanna & Straub, 2003). It is anticipated that, when people believe the ease of use of BNPL increases, intention to use will also increase (Daştan & Gürler, 2016).

#### 2.4.3 PR and IA

H<sub>30</sub>: There is no significant relationship between PR and IA.

 $H_{3a}$ : There is a significant relationship between PR and IA.

Koenig-Lewis et al. (2015) found that PR had a negative significant relationship to IA. As a result, PR has a detrimental impact on consumers' willingness to use mpayment such as BNPL payment. The findings in Priya, Gandhi and Shaikh (2018) indicate that the PR associated with BNPL has no notable effect on customers' behavioural intention (BI). Therefore, it appears that mobile banking users do not consider there to be significant risks associated with utilising BNPL service to conduct banking transactions. Besides, Munoz-Leiva, Climent-Climent & Liébana-Cabanillas (2017) mentioned that both PR and PU have no significant impact on intention. These variables become less important due to the experience effect. Users who have experience using mobile apps including the BNPL app will decrease their fear of risk associated with app usage, leading to a more positive perception of usefulness and increased usage on a consistent basis.

#### 2.4.4 SI and IA

H<sub>40</sub>: There is no significant relationship between SI and IA.

H<sub>4a</sub>: There is a significant relationship between SI and IA.

Alwi et al. (2019) found that the willingness of customers to use fintech services for payment is significantly impacted by social factors. According to the UTAUT model, the variable of SI exhibits a significant positive correlation with the acceptance of fintech among Gen Z and Gen Y. Furthermore, BNPL is strongly linked to social interaction (Nicolaou, 2022). According to empirical study that utilises the UTAUT model, it was found that in Portugal, SI plays a crucial role in determining intention of consumers to adopt mobile payment technology like BNPL. The study confirmed that SI will highly affect the intention of consumers to adopt technology such as BNPL, as people are susceptible to being influenced by those in their immediate surroundings (Chong, Choo, Yip, Chan, Teh, Ng, 2019).

## 2.4.5 FL and IA

H<sub>50</sub>: There is no significant relationship between FL and IA.

H<sub>5a</sub>: There is a significant relationship between FL and IA.

According to Perara (2020), there is a significant relationship between the category of FL and BNPL usage. In addition, even after controlling for herding behaviour and risk aversion, the influence of FL on the frequency of e-money adoption remains positive and significant (Yoshino et al., 2020). According to Morgon and Trinh (2020), a higher FL is significantly related with awareness and adoption of

fintech products in this study which is BNPL. Therefore, an individual with higher education levels will significantly have higher awareness toward fintech products in the situation where FL and income are controlled. The study from Grøtan (2021) showed a positive correlation between the FL and failure to pay consumer credit as well as financial debt burdens. The pain of payment will be decreased followed by an increase of FL a person has. Therefore, this could increase IA.

#### 2.4.6 Gender and Intention to adopt BNPL, PU, PEOU, PR, SI, FL

 $H_{60}$ : There is no significant difference between IA, PU, PEOU, PR, SI, FL and gender.

 $H_{6a}\!\!:$  There is a significant difference between IA,  $\,$  PU, PEOU, PR, SI, FL and gender.

Chong et al. (2019) found that there exists a gender-based disparity in the IA, with males exhibiting a stronger inclination towards it than females. Therefore, the study's outcomes suggest that males are more likely to adopt BNPL service than their female counterparts.

#### 2.4.7 Age and Intention to adopt BNPL, PU, PEOU, PR, SI, FL

H<sub>70</sub>: There is no significant difference between IA, PU, PEOU, PR, SI, FL and age. H<sub>7a</sub>: There is a significant difference between IA, PU, PEOU, PR, SI, FL and age. Based on the study, it has found that age has a significant association with IA, thus, IA will decrease when the consumers get older. The age range of generations for which BNPL service is available is gradually converging as it results in the intention to adopt BNPL service by both Gen Z and non-Gen Z (Elsayed, Fung & Wu, 2022).

# 2.4.8 Income level (INC) and Intention to adopt BNPL, PU, PEOU, PR, SI, FL

 $H_{80}$ : There is no significant difference between IA, PU, PEOU, PR, SI, FL and INC  $H_{8a}$ : There is a significant difference between IA, PU, PEOU, PR, SI, FL and INC

As per the findings of Akana (2022), there is a correlation between income and BNPL usage intensity, whereby the usage of BNPL increases with income. The study has revealed that individuals in the higher income range tend to be the heaviest users of BNPL service, as they report the highest percentage of usage.

## **2.5 Conclusion**

For Chapter 2, the relationships for the variables are being created and determined. Definitions of independent and dependent variables are presented and written clearly for other researchers with a broad understanding of these terms. Next, a theoretical framework and hypothesis were proposed in this chapter. In the next chapter, Chapter 3, the methodology will be conducted, and the hypothesis written

in Chapter 2 will be tested with corresponding and suitable quantitative research methods.

# **CHAPTER 3: METHODOLOGY**

# **3.0 Introduction**

For Chapter 3, design of research, design of sampling, method of data collection, analysis tool, construct measurement, and data processing will be conducted. The analysis tool will include several tests for the next chapter, Chapter 4, to test with the data collected through survey. Besides, scale and operation will also be being mentioned in this chapter to show which scale will be used. Thus, sampling size, methods, and targeted population is shown.

# **3.1 Research Design**

The adopted designs use descriptive methods with a quantitative approach. The explanation for this is that these methods can explicitly explain the object or subject while demonstrating impacts of the Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Risk (PR), Social Influence (SI), and Financial Literacy (FL) on the intention to adopt BNPL (IA). For instance, information obtained from a questionnaire may be processed statistically in order to evaluate pre-determined hypotheses (Wijayanti, Rohaeni, Mukarromah & Yunita, 2022).

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Descriptive research is referred to as observational designs in this study and the objective of applying it is mainly to ascertain the descriptive information and function of market characteristics. According to Alwi et al. (2019), descriptive research can be used to identify correlations between variables and identify factors that genuinely affect the consumers' propensity to embrace Buy-Now-Pay-Later (BNPL) services.

#### **3.1.1 Quantitative methods**

To obtain the required data for this study, a quantitative method approach is being applied through distributing questionnaires. The sample in this study are adults aged 18 years and above. By adopting this method, numerical analysis of questionnairecollected data could help provide objective measurement for study purposes (Rompas, Pangemanan, & Tulung, 2020).

# **3.2 Sampling Design**

#### **3.2.1 Target Population**

Malaysian citizens who were at the age above 18 years old which is approximately 24,650,651 is considered as the total population. Moreover, refer to Figure 3.1, the number of BNPL users in Malaysia is approximately 2.9 million. All Malaysian citizens, including current and former users of BNPL were included in the sampling criteria for this study. There will be no restrictions based on gender, race, religion, or ethnicity. Consumers who have never conducted a transaction using BNPL services are considered non-users. Non-users are included in the target group since they could one day become current or upcoming BNPL users. By examining the variables influencing customers' intention toward online credit transactions, it is possible to discover why non-users choose not to use BNPL services. Customers who have been consistently managing their finances and transacting with BNPL are considered current customers. The purpose of selecting current customers is to identify the barriers to loyalty for BNPL services and learn how to keep customers who use BNPL on a regular basis (Siyal, Donghong, Umrani, Siyal, & Bhand, 2019).

#### **3.2.2 Sampling Frame and Sampling Location**

Questionnaires being created were sent to respondents across Malaysia. The particular sampling frame focuses on all citizens in Malaysia but excluding the foreigners, among ages of 18 and above. Additionally, Malaysia was chosen as the sampling location to collect data or responses from Malaysians that come from different states.

#### **3.2.3 Sampling Elements**

This particular study will be distributed in Malaysia via social media platforms, using internet surveys such as Google forms and questionnaires. Malaysian citizens from different geographical areas will be the targeted respondents. Their age must be above 18 years old as this is the minimum requirement to register and enjoy BNPL services. The respondents can be students, non-students, employed and unemployed adults. The respondents can also be existing users (e.g. Atome, Fave Pay, and non-user of BNPL services and relevant people as they can be future users who use BNPL services. The reason for selecting Atome BNPL users as respondents is because Atome had wider market exposure as it has connections with more than 2,000 retailers online and in-store merchants. The reason for selecting Fave pay users as respondents is because Fave collaborated with vendors to provide reduced-price products and services through a system resembling a digital coupon. The other criteria for being selected as target respondents is that they have registered the account of BNPL on any platform. By focusing on them, it will be more efficient to understand the variables that lead to IA.

#### **3.2.4 Sampling Techniques**

The reason for using snowball sampling is because of the difficulty in finding participants for BNPL studies. The reason for difficulty in finding participants is due to the fact that the topic of BNPL is considered new and immature in the study area. This method is also advantageous as it is probable that present participants know others who have comparable qualities that are relevant to BNPL.

Limitation of purposive sampling is that it may be extremely vulnerable to researcher bias. Purposive sampling is argued to have bias which is based on the researcher's judgement when comparing to probability sampling approaches. However, the judging subjective element of purposive sampling will become a significant drawback when such judgements are poorly thought out or executed (Sharma, 2017).

For quota sampling, it is impossible to estimate any potential sampling error since the sample in quota sampling was not chosen at random. In fact, it's probable that the units chosen for the sample will be chosen based on ease of access and cost factors, which could lead to bias in the sample. Additionally, this suggests that external validity problems occur when it is not possible to generalize, such as statistical inferences, from the sample to the population (Sharma, 2017).

#### 3.2.5 Sampling Size

Through the Taro Yamane formula, sampling size can be determined. This statistical formula was established by a mathematician statistician to calculate the sample size based on the number of populations needed for this study. Therefore, any inferences or conclusions drawn from the survey can be applied to the entire population in which the sample is drawn. Besides, the confidence coefficient and the sampling error will be 95% and 0.05 respectively in order to make this equation valid and the population size need to be divided by one plus the population size multiply the margin of error with square root. Taro Yamane's calculation is shown below (PROJECT CLUE, 2015).

$$n = \frac{N}{1 + N * (e)^2}$$

Where,

n = the sampling size

N = the population size

e = the margin error

Refer to Figure 3.2, the population of Malaysia aged 18 and above in 2022 is about 24,650,651. Therefore, using all available information, the Yamane formula results for this study are as follows:

$$n = \frac{N}{1 + N * (e)^2}$$
$$n = \frac{N}{1 + 24,650,651 * (0.05)^2}$$
$$n = 399.99$$

In which:

N = 24,650,651

the margin error, e = 0.05

Sample size =  $399.99 \approx 400$  people

# **3.3 Data Collection Methods**

#### **3.3.1 Primary Data**

In this study, the main data that can be obtained from the respondents through their questionnaire's answer is primary data. Furthermore, due to its accuracy and dependability, a primary data-collecting technique is used. The primary data will be gathered using a survey method in which Malaysians above the age of 18 will be surveyed. Adoption of survey methods is driven by their affordability and accessibility (Alwi et al., 2019). The use of questionnaires can help to better understand respondents' opinions and thoughts towards IA.

At first, the questionnaires in physical paper format will be handed out in person to the respondent. A total of 150 printed versions of the questionnaire will be delivered to the respondents as data collection. Although the physical distribution of questionnaires is thought to be an efficient form of data collection, it has a lesser coverage. Therefore, online questionnaires will also be distributed as it provides high exposure and high coverage to reach more respondents from different states, enhancing the effectiveness of the data collection process. Besides that, online questionnaires can avoid face-to-face distribution to minimise the risk of exposure to Covid-19. An online google form link will be distributed to our target populations, and they can access the questionnaire and fill out the questions.

#### **3.3.2 Questionnaire Design**

A total of 40 questions are being prepared. Respondents need to follow the instructions and read the options thus select a suitable scale point from the overview tool. The survey instrument is divided into two portions for this specific study, Section A and Section B. Part A concentrated on demographics such as email, married status, gender, highest academic level, age and so on. There will be a total of 10 questions in Section A. On the other hand, section B consists of 30 questions Page **36** of **115** 

adopting a 5-point Likert scale that are related to IA and PU, PEOU ,PR, SI and FL. The detailed questionnaire design can be referred from the appendix 3.3.2.1. Besides, the reasons for adapting the questions from several journals can be referred from appendix 3.3.2.2.

# **3.4 Proposed Data Analysis Tool**

Data table is selected as data analysis techniques for this study. The reason for data table adoption is because tables offer a quick and effective way to present information in rows and columns. The title of a data table, as well as its column and row headers, can aid an individual in comprehending the data presented in the table. Tables can be extremely potent and convey a significant amount of information. Therefore, a table will be included to evaluate the final data with the DV and IV.

## **3.4.1 Descriptive Analysis**

After the collection of data from the questionnaires, mean, mode, and standard deviation will be explored. Thus, it can be used for the interpretation of data since it was the powerful descriptive statistics for the study. For instance, quantitative representation in the form of a table, graph, or chart could be introduced since it summarises the information gathered from respondents. In addition, it helps people to comprehend and analyse enormous amounts of raw data in a more effective way.

#### 3.4.2 Pilot Test

Construct	IA	PEOU	PU	PR	SI	FL
Cronbach Alpha	0.912	0.704	0.870	0.683	0.927	0.502

Table 3.4.2.1: Pilot Test Reliability Test Cronbach Alpha

Researchers planned to prepare an online google form to randomly pick any 30 experts that fulfil the requirements of at least 18 years old and as a Malaysian. Thus, let them start to do the mini survey questionnaire. Running a pilot test is to provide a better sight to view the problems of the survey questions before the real study. For example, grammatical errors, or any misleading questions being asked. In this case, some adjustments and amendments can be done to improve the quality of data collection. The test was performed for 3 working days. There are 2 ways to distribute questionnaires which are online and physically distributed to all Malaysian experts and analysed using the SPSS 27.0 programme to test and confirm the questionnaire's accuracy and reliability. SPSS was chosen mostly because it is simple to use and allows for faster data analysis. However, the pilot test was being distributed to 30 experts and the feedback and comments for amendment can be referred to appendix 3.4.2.1.

#### 3.4.3 Reliability Analysis (Cronbach's Alpha)

The reliability analysis of Cronbach's Alpha is being used to determine the reliability of questionnaires. The Cronbach's Alpha Rule of Thumb is shown in

appendix 3.4.3.1. Cronbach's Alpha may be utilised efficiently with both binary and large-scale data. The quantity of test items, the degree of item interdependence, and the dimension of the data are all influence alpha. Because there were fewer questions, there were also likely fewer correlations between pairs of items, which led to the low alpha score. As a result, some items might have been eliminated. If alpha is very high or too close to one, it might mean that certain items are unnecessary since they test the same question under various conditions. The value of coefficient of alpha increases and becomes more dependable once the maximum alpha value of 0.90 has been advised (Sharma, 2016). The assumption stated, a value that is greater or equal to 0.70, the collected results will be considered reliable. It also shows the internal consistency is acceptable and suitable for use.

#### **3.4.4 Validity test**

By running the validity test, the trustworthiness of the instruments can be determined based on the results obtained to draw meaningful conclusions for the study. In a theoretical way, the instruments are considered valid if the correlation coefficient between one indicator's value and the sum of all other indicators is more than or equal to 0.3 ( $r \ge 0.3$ ) and less than significance level (5%) (Rompas, et al., 2020).

#### **3.4.5 Pearson correlation**

Correlation analysis can be used for this study in order to measure how closely the relation between variables. While conducting this analysis, there will be linear and

non-linear correlation among the studies. Moreover, correlation analysis is significant in identifying the relationship between two variables. There will either be a positive, negative or zero relationship between two variables after categorization (Schober, Boer & Schwarte, 2018).

#### 3.4.6 Multiple Linear Regression Analysis

MLR can perform as an analysis to find the impact between variables (Abdullah, Redzuan & Daud, 2020). Since the 6 variables in this study include DV and IVs, thus it is appropriate to use. The following equation represents the MLR used in study. In the equation, the dependent variable was listed on the left side, and the independent variables were listed on the right.

MLR Equation :

$$BNPL = \beta_0 + \beta_1 PU + \beta_2 PEOU + \beta_3 PR + \beta_4 SI + \beta_5 FL + \mu$$

#### 3.4.7 Independent sample T-test

The test is being employed because it has the benefit of always being the most reliable, unbiased test when the information gathered from both online and hardcopy questionnaires is all normally distributed. In addition, the findings from this study are likely to be more powerful because the population features of the studies conducted are known to be located within the state of Malaysia and have been regarded as relatively symmetric. The t-test can be adopted in order to assess if the distinction among the two independent variables is simply different or just the result of random effects (Bridge & Sawilowsky, 1999).

#### 3.4.8 One-way Anova

It is appropriate for the study since the influence of PU, PEOU, PR, SI and FL on IA may be measured without knowing the correlation among them. In addition, Anova is being applied because the observations of the study are independent and randomly selected from normal populations with equal variance, thus it is not necessary to have equal sample size. Other than that, Anova frequently used to examine data from study that consisted of more intricate design, thus Anova tends to be more effective for the measurement of differences between more than two groups for the study (Bewick, Cheek & Ball, 2004).

## **3.5 Construct Measurement**

For this study, the suitable measuring scales were chosen for every variable. The significance of measurement lies in giving purpose to thorough observation of the physical world, and it forms the core of empirical investigation. Measurement scales such as nominal, ordinal, interval, and ratio are chosen. In this study, the scale was not chosen as the ordinal scale. In this study, Part A employed the nominal and ratio scales, while Part B used the interval ratio scale and a 5-point Likert scale. While several studies have utilised the 7-point Likert scale as their preferred scale, this study determined that the precision of the 5-point Likert scale was satisfactory

enough. The following table illustrates the measuring scales applied to all the variables scrutinised in both parts.

## 3.5.1 Nominal Scale

A range of numbers which within the nominal scale was given for participants for selecting the variable do not signify any sequence or ranking and are solely utilised for categorising data. Regarding the study subject of Part A, questions 1 (Gender), 2 (Race), 4 (Marital Status), 6 (Highest Education Level Attained), 9 (Sector that usually use for BNPL services), and 10 (Companies that usually use for BNPL services) are measured using the nominal scale, refer to appendix 3.5. The number of responses given by participants in those questions does not indicate any arrangement or hierarchy, but rather, it carries its own significance.

## **3.5.2 Interval Scale**

The responses showed a distinction with all the characteristics as a result of interval scale. Thus, this scale indicates the classification and the interval between each value. In Part B questions, the 5-point Likert method was being used where there are digits from 1 to 5 as the degree of agreement in which 1 is strongly disagree to 5 is strongly agree. Their responses are evenly spaced out from one another.

#### 3.5.3 Ratio Scale

The scale of ratio incorporates the other three scales, but what sets it apart is that it has a unique measurement attribute in the form of a zero point. At the ratio scale, values can be categorised, ordered, have equal intervals as well as the number zero carries the true meaning. Within the study topic of Part A, questions 3 (Age), 5 (Income level), 7 (Monthly frequency of utilising BNPL services), and 8 (Monthly amount spent on BNPL services) are measured using the ratio scale. For instance, in question 7, the response of 0 indicates that the participant did not utilise BNPL services within a month.

# **3.6 Data Processing**

#### 3.6.1 Data Checking

In order to process the checking of data, all questions written in surveys are confirmed valid by data verification. Data checking is important as it can make sure the final data is matching with study objectives. The error in the questionnaire might occur due to the missing information, unclear instruction written, odd answers provided, and relevant error. Thus, the questionnaire that is being collected back in complete form is the responsibility as a researcher. On the other hand, a pilot test was being conducted several times after amendments to ensure the reliability is on standard for the questionnaires that are going to be distributed afterwards.

#### 3.6.2 Data Editing

The important next stage to be carried out is data editing, which comes after the data processing section. This is because data editing can help to identify some errors or mistakes that respondents made when filling out questionnaires. If there are data errors, the data will be unable to edit until the problem is fixed. As a result, researchers must always make sure that the questionnaires obtained from respondents have complete data or information, and the data used is free from mistakes. This is to ensure the data is being estimated consistently, hence enhancing the quality and accuracy of the collected data and maximising its value for coding purposes.

#### 3.6.3 Data Coding

In order to let the data collected become more relevant, helpful, and easy to be identified, the researcher will transfer the data to communicative coding from raw qualitative data. After collecting the raw data and comments from respondents, the raw data will be entered into IBM SPSS Statistic 27.0 version and transferred in a coding form (1-8). Each response to the questions in Section A is categorised by referring to appendix 3.6. The questions in section B are then individually categorised using from Strongly Disagree is 1 to Strongly Agree is 5.

#### 3.6.4 Data Transcribing

By using the IBM SPSS Statistic 27.0 version, all the raw data will be imported and processed by SPSS in order to produce more useful information. The process of data transcribing might have some error such as entering wrong data, or relevant error. The researchers will have to ensure that the data being imported to SPSS is correct and accurate to prevent unnecessary error. Meanwhile, data transcribing can result in a better view of the data result as SPSS is able to conduct several tests for the researchers to analyse.

#### 3.6.5 IBM SPSS Statistic 27.0

The reason that SPSS was being chosen is because it is very user-friendly which can help to perform complex statistical analysis. Besides, the data visualisation provided by SPSS is also one of the benefits as researchers can view the data on the table created by SPSS easily. Last but not least, the SPSS data can easily be imported or exported to other platforms such as Microsoft Word or Microsoft Excel which is very comfortable for the user.

# **<u>3.7 Ethical Consideration</u>**

Throughout the study process, ethical consideration is one of the most important parts to respect the rights of study participants as much as feasible, promote study validity, and preserve scientific integrity. This is due to the fact that understanding real life occurrences, researching effective treatments, evaluating behavioural, as well as enhancing the lifestyle of individuals are typically goals of human study. Important ethical considerations have an impact on our judgments regarding what to look into and the method to carry out the study. Furthermore, respondent will not be forced to finish any survey question and will obtain the respondent's permission and full agreement before delivering the Google Form via the Web platform. Aside from that, they are completely aware that the data they gave would be released but in an anonymous manner, with no one knowing who provided this answer in order to preserve their privacy.

In addition, because the questionnaire will be administered in English, to ensure that the respondents being selected will have a basic understanding of the language is the priority. Therefore, respondents will feel more at ease and confident when responding to the questionnaire, which can improve the validity and dependability of the data (Cacciattolo, 2015). Furthermore, to preserve their privacy, respondents are not required to disclose their NRIC number, contact number, or any other personal information in the questionnaire other than their complete name, age, and race.

# **3.8 Conclusion**

Conclusion, design of research, sampling, method of collection, tool of analysis, construct of measurement, and data processing were discussed in this Chapter 3. All these elements are the foundation for the researchers to follow and proceed with the analyse information. The questionnaires are being distributed and collected back. However, only 401 sets of questionnaires will be chosen due to the minimum sampling size of 399.99 which is at least 400 respondents. Moreover, Chapter 3 is

linked with chapter 4 as the next chapter will illustrate the results and findings that are mentioned in the Chapter 1's research questions and hypotheses.

# **CHAPTER 4 : RESULT ANALYSIS**

# **4.0 Introduction**

For this chapter, data received will transfer to a result conducted by SPSS and will be proceeded to find the final results. The collection result shows that 537 sets of questionnaires are being distributed for our research collection including both online and physical distribution. The chosen questionnaires are 401 sets and the other 136 questionnaires collected back are having errors which will be discarded. After analysing the results, the relationship between variables will be shown.

# **4.1 Descriptive Analysis**

Demographic	Items	Frequency	Percentage(%)
Gender	Male	179.00	44.60
	Female	222.00	55.40
Race	Chinese	365.00	91.00
	Malay	24.00	6.00
	Indian	12.00	3.00
Age (years old)	18-25	351.00	87.50
	26-35	31.00	7.70
	36-45	11.00	2.70
	46-55	5.00	1.20
	≥ 55	3.00	0.70
Marriage	Single	372.00	92.80
	Married	29.00	7.20
INC (RM)	Below 2,000	291.00	72.60
	2,000 - 4,000	75.00	18.70
	4,001 - 6,000	17.00	4.20
	6,001 - 8,000	6.00	1.50
	8,000 and above	12.00	3.00
Education	SPM/ O-level	56.00	14.00

## Table 4.1.1: Demographic Data

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Service in Malays	ia

	STPM/A-level	25.00	6.20
	Diploma	29.00	7.20
	Bachelor's Degree	273.00	68.10
	Master's Degree	10.00	2.50
	PHD/ Doctorate's degree	3.00	0.70
	Professional Certificate (Eg:		
	ACCA/CPA/CFA/CIMA)	1.00	0.20
	Others	4.00	1.00
Frequency (times)	0	224.00	55.90
	1-2	122.00	30.40
	3-4	31.00	7.70
	5-6	11.00	2.70
	7 and above	13.00	3.20
Spend (RM)	Below 50	92.00	22.90
	50-100	53.00	13.20
	100-300	15.00	3.70
	300-500	4.00	1.00
	500 and above	10.00	2.50
Sectors	Fashion	91.00	51.41
	Home and living	85.00	48.02
	Beauty	56.00	31.64
	Sports and outdoors	33.00	18.64

			,	
	Transportation	2.00	1.13	
	electronics	4.00	2.26	
	Food & Beverage	3.00	1.69	
	computer accessories	5.00	2.82	
Providers	Grabpay	70.00	39.55	-
	Hoolah	10.00	5.65	
	Split	4.00	2.26	
	MyIOU	1.00	0.56	
	Atome	53.00	29.94	
	FavePay	5.00	2.82	
	SPayLater	90.00	50.85	

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According to the table 4.1.1 clearly presents 401 responses from valid responses. In the gender aspect, 222 people (55.4%) are female respondents which is slightly higher than 179 people (44.6%) who are male respondents. In the race aspect, the highest frequency is 365 people (91%) who are Chinese, followed by 24 people (6%) who are Malay, and the lowest frequency is 12 people (3%) who are Indian. In the age aspect, the highest frequency is 351 people (87.5%) who are in the first age group, the middle frequency is 11 people (2.7%) who are in the middle age group. The lowest frequency is 3 people (0.7%) who are in the last age group. In the marriage aspect, 372 people (92.8%) are single which is higher than 29 people (7.2%) who are married.

In the income (INC) aspect, the highest frequency is 291 people (72.6%) who have earned below RM2000, middle frequency is 17 people (4.2%) who have earned RM4001 - RM6000, and the lowest frequency is 6 people (1.5%) who have earned RM6001 - RM8000. In the highest education level aspect, the highest frequency is Page **50** of **115**  273 people (68.1%) who have attained a bachelor's degree level, the middle frequency is 10 people (2.5%) who have attained Master's Degree, and the lowest frequency is 1 people (0.2%) who have attained a Professional Certificate such as ACCA, CPA, CFA or CIMA.

In the frequency of using Buy Now Pay Later (BNPL) service in a month aspect, the highest frequency is 224 people (55.9%) who are not using BNPL service before, the middle frequency is 31 people (7.7%) who using 3 - 4 times BNPL service in a month, and the lowest frequency is 11 people (2.7%) who using 5 - 6 times BNPL service in a month. In terms of the monthly cost of using BNPL service, the highest frequency is 92 people (22.9%) which spent below RM50 using BNPL service in a month, the middle frequency is 15 people (3.7%) which spent RM100 - RM500 using BNPL services in a month, and the lowest frequency is 4 people (1%) which spent RM300-RM500 using BNPL service in a month.

In the sector in which the respondent usually uses for BNPL service aspect, the highest frequency is 91 people (51.41%) who use BNPL service for Fashion, the middle frequency is 33 people (18.64%) which use BNPL service for Sports and Outdoors, and the lowest frequency is 4 people (2.26%) which use BNPL service for Electronics. In the companies which respondents usually use for BNPL service aspect, the highest frequency is 90 people (50.85%) which use SPaylater for BNPL service, 70 people (39.55%) which use Grabpay for BNPL service, the middle frequency is 10 people (5.65%) which use Hoolah for BNPL service, and the lowest frequencies is 1 people (0.56%) which use MyIOU for BNPL service.

## **4.2 Factor Analysis**

# 4.2.1 Validity Test

IA	IA1	IA2	IA3	IA4	IA5
IA1	1				
IA2	.667**	1			
IA3	.599**	.675**	1		
IA4	.678**	.737**	.747**	1	
IA5	.667**	.691**	.793**	.774**	1
PU	PU1	PU2	PU3	PU4	PU5
PU1	1				
PU2	.680**	1			
PU3	.748**	.766**	1		
PU4	.704**	.785**	.806**	1	
PU5	.703**	.706**	.724**	.772**	1
PEOU	PEOU1	PEOU3	PEOU4	PEOU5	

Table 4.2.1.1: Validity test

PEOU1	1				
PEOU3	.607**	1			
PEOU4	.473**	.489**	1		
PEOU5	.175**	.204**	.391**	1	
PR	PR2	PR3	PR4	PR5	PR1A
PR1A	1				
PR2	.359**	1			
PR3	.314**	.701**	1		
PR4	.298**	.673**	.785**	1	
PR5	.339**	.705**	.767**	.790**	1
SI	SI1	SI2	SI3	SI4	SI5
SI1	1				
SI2	.407**	1			
SI3	.370**	.641**	1		
SI4	.366*	.578**	.789**	1	
SI5	.373**	.566*	.814**	.804**	1

FL	FL1	FL2	FL3	FL4	FL5
FL1	1				
ΓLΙ	1				
FL2	.566**	1			
FL3	.514**	.477**	1		
FL4	.515**	.516**	.587**	1	
FL5	.673**	.574**	.642**	.615**	1

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: Developed for the research

From 4.2.1.1, the total values of the intention to adopt BNPL (IA), perceived usefulness (PU), perceived ease of use (PEOU), perceived risk (PR), social influence (SI), and financial literacy (FL) variables are all more than 0.3 with the significance level of 5%. Since the variables are greater than 0.3 ( $r \ge 0.3$ ), thus, the variables are valid in the validity test.

#### 4.2.2 Reliability, Cronbach Alpha, Mean, and Standard Deviation

Items	Cronbach's Alpha	Mean	Standard Deviation
IA	0.922	3.3955	0.94323

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IA1	0.732	3.4115	0.93422
IA2	0.785	3.2319	1.10163
IA3	0.801	3.4913	1.12051
IA4	0.841	3.2943	1.13499
IA5	0.838	3.5486	1.09693
PU	0.934	3.4783	0.94697
PU1	0.783	3.3142	1.07518
PU2	0.817	3.4988	1.03953
PU3	0.854	3.4414	1.07340
PU4	0.862	3.5636	1.06375
PU5	0.806	3.5736	1.07014
PEOU	0.725	3.5281	0.69664
PEOU1	0.615	3.8030	1.06705
PEOU3	0.604	3.7357	0.84555
PEOU4	0.613	3.4838	0.93293
PEOU5	0.282	3.0898	0.93644
PR	0.874	3.0718	0.74862
PR2	0.752	2.8603	1.10926
PR3	0.805	2.9601	1.09243
PR4	0.796	3.0574	1.13983
#### The Rise of Buy -Now-Pay-Later (BNPL) Service in Malaysia

PR5	0.817	3.0050	1.11354
PR1A	0.366	2.5237	1.00003
SI	0.874	3.2673	0.85379
SI1	0.431	3.8454	0.87809
SI2	0.66	3.2195	1.09623
SI3	0.829	3.0673	1.07840
SI4	0.798	3.0499	1.08282
SI5	0.805	3.1546	1.08214
FL	0.862	3.9491	0.66829
FL1	0.652	4.0100	0.80616
FL2	0.634	3.8504	0.82010
FL3	0.661	4.0224	0.82583
FL4	0.688	3.8603	0.88907
FL5	0.774	4.0025	0.79215

Source: Developed for the research

Based on table 4.2.2.1, it shows the IA, PU, PR, SI and FL constructs, there is no elimination of any item. PEOU 2 was removed from the study because after eliminating PEOU 2, the PEOU Cronbach's Alpha increased to 0.725, which fulfilled the range value of 0.7. The actual test of PU (a=0.934) has obtained the highest reliability level, followed by IA (a= 0.922), both PR and SI (a=0.874), FL (a=0.862), and lastly PEOU (a=0.725). Besides, PR1 was being changed to PR1A because it is the only positive question among the questions. High value in alpha

shows that the question in questionnaire have a strong correlation with one another, implying that they assess the same underlying concept.

# **4.3 Inferential Analysis**

## 4.3.1 Pearson's Correlation Analysis

Panel A: PU	PU1	PU2	PU3	PU4	PU5
PU1	1				
	-				
PU2	.680**	1			
PU3	.748**	.766**	1		
PU4	.704**	.785**	.806**	1	
PU5	.703**	.706**	.724**	.772**	1
Panel B: PEOU	PEOU1	PEOU3	PEOU4	PEOU5	
PEOU1	1				

Table 4.3.1.1: Correlation Matrix among PU, PEOU, PR, SI and FL

### The Rise of Buy -Now-Pay-Later (BNPL) Service in Malaysia

PEOU3	.607**	1			
PEOU4	.473**	.489**	1		
PEOU5	.175**	.204**	.391**	1	
Panel C: PR	PR2	PR3	PR4	PR5	PR1A
PR1A	1				
PR2	.359**	1			
PR3	.314**	.701**	1		
PR4	.298**	.673**	.785**	1	
PR5	.339**	.705**	.767**	.790**	1
Panel D: SI	SI1	SI2	SI3	SI4	SI5
SI1	1				
SI2	.407**	1			
SI3	.370**	.641**	1		
SI4	.366*	.578**	.789**	1	
SI5	.373**	.566*	.814**	.804**	1
Panel E: FL	FL1	FL2	FL3	FL4	FL5

FL1	1					
FL2	.566**	1				
FL3	.514**	.477**	1			
FL4	.515**	.516**	.587**	1		
FL5	.673**	.574**	.642**	.615**	1	

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Source: Developed for the research

Based on the table 4.3.1.1, all constructs have significant items at a 0.01 level. As a result, the findings indicate that PU, PEOU, SI, and FL are valid, significant, and have a positive relationship. This is because all correlation values are positive, and the p-values are below 0.01.

Table 4.3.1.2 Correlation Coefficient of IA, PU, PEOU, PR, SI, and FL

	IA	PU	PEOU	PR	SI	FL
IA	1					
PU	.812**	1				
ru	.012	1				
PEOU	.582**	.554**	1			
PR	-0.022	0.02	.058**	1		
	0.022	0.02		•		

SI	.689**	.616**	.626**	-0.021	1	
FL	.367**	.335**	.361**	0.006	.327**	1

\*\*. Correlation is significant at the 0.01 level (2-tailed).Source: Developed for the research

From Table 4.3.1.2, the p-values of the four independent variables (PU, PEOU, SI, FL) are below 0.05, indicating a significant relationship with the dependent variable, IA.

PU (r= 0.812), PEOU (r= 0.582), FL (r= 0.367) and SI (r= 0.689) have positive correlation coefficient values, which mean that these four independent variables have a strong relationship with IA. The correlation coefficient value of PR (r= -0.022) is negative, thus there is no correlation with IA.

Overall, the outcome indicates that PU, PEOU, FL, and SI have a significant and positive correlation with IA. However, there is an independent variable that is not statistically significant and has a negative correlation with IA.

## 4.3.2 Multi Linear Regression

Intention to Adopt	Beta	t-value	Sig.	Result
(Constant)	-0.0136	-0.699	0.485	

 Table 4.3.2.1: Regression Result of Independent Variables on IA

### The Rise of Buy -Now-Pay-Later (BNPL) Service in Malaysia

PU	0.591	16.854	0.000	Reject H <sub>10</sub>
PEOU	0.099	2.028	0.043	Reject H <sub>20</sub>
PR	-0.041	-1.223	0.222	Accept H <sub>30</sub>
SI	0.285	6.894	0.000	Reject H <sub>40</sub>
FL	0.081	1.998	0.046	Reject H <sub>50</sub>

 $R = 0.851a; R^2 = 0.724; Sig. = 0.050$ 

Source: Developed for the research

Based on table 4.3.2.1, value of R is 0.851a, which means it has a strong positive correlation between IV and DV. Next, the R<sup>2</sup> of this study is 0.724 which indicates that 72.4% of the variation in PU, PEOU, PR, SI, FL can be explained to the IA. In the F-test, p-value is 0 indicates that at least one variable can explain the IA at a significant level of ( $\alpha$ =0.05). In the beta aspect, PU beta value is 0.591 followed by SI ( $\beta$ = 0.285), while FL ( $\beta$ = 0.081), and PEOU ( $\beta$ = 0.099).

According to the table results, the combinations PU and SI are the most significant variables to determine the IA as both of them have the lowest P-value of 0.000 compared with other independent variables. Besides, PEOU and FL are also significant to the IA as the respective P-value of 0.043 and 0.046 are lower than 0.05 of significance level. Lastly, the P-value of PR is higher than the significance level of 0.05 which indicates that PR has no significant relationship with IA.

# 4.3.3 Independent sample T-test

		Levene'	s Test for			
		Equality o	of Variances	t-test fo	f Means	
						Sig. (2-
		F	Sig.	t	df	tailed)
IA		0.052	0.820	2.683	399.000	0.008
				2.692	385.750	0.007
PU		3.151	0.077	2.562	399.000	0.011
	Equal variances			2.596	395.631	0.010
PEOU	assumed.	0.031	0.861	1.244	399.000	0.214
				1.249	386.618	0.213
PR	Equal variances not assumed	0.952	0.330	-1.811	399.000	0.071
				-1.797	369.136	0.073
SI		1.025	0.312	1.645	399.000	0.101
				1.638	375.083	0.102
FL		0.213	0.645	0.987	399.000	0.324
				0.984	375.705	0.326

 Table 4.3.3.1: Independent T-Test

By referring to table 4.3.3.1, the equality variance of IA, PU, PEOU, PR, SI, FL is assumed as all of the P-values are greater than significance level of 0.05. The significant relationship between the independent variables and gender can be determined by observing the sig (2-tailed) from the table. The sig. (2-tailed) of IA is 0.008 (< 0.05) while the sig. (2-tailed) of PU is 0.011 (< 0.05). Other variables which include PEOU, PR, SI, and FL have no significant relationship with gender as p-value greater than 0.05.

(	Gender	Ν	Mean	Std Deviation	Std. Error Mean
IA	Male	179	3.5352	0.91984	0.06875
	Female	222	3.2829	0.94881	0.06368
PU	Male	179	3.6123	0.87491	0.06539
	Female	222	3.3703	0.99010	0.06645
PEOU	Male	179	3.5894	0.68417	0.05114
	Female	222	3.4786	0.70418	0.04726
PR	Male	179	2.9966	0.77473	0.05791
	Female	222	3.1324	0.72295	0.04852
SI	Male	179	3.3453	0.86914	0.06496
	Female	222	3.2045	0.83789	0.05624

 Table 4.3.3.2: Gender Group Statistic

FL	Male	179	3.9832	0.68528	0.05122
	Female	222	3.9216	0.65452	0.04393

By referring to table 4.3.3.2, the intention to adopt for male is higher than females [Mean of male (3.535) > mean of female (3.283)]. Moreover, male have more perspective of PU compared to females [Mean of male (3.612) > mean of female (3.370)]. Therefore, H<sub>60</sub> is accepted where there is no significant difference between IA, PU, PEOU, PR, SI, FL, and gender of respondent. However, if PEOU, PR, SI, and FL are excluded from the test, H<sub>60</sub> will be rejected.

## 4.3.4 One-Way ANOVA

### 4.3.4.1 One Way ANOVA of Age

H<sub>70</sub>: There is no significant difference between IA, PU, PEOU, PR, SI, FL and age

Refer to the ANOVA testing from appendix 4.3.4.1.1 demonstrated that IA has the p-value of 0.006, PU has the p-value of 0.017, PEOU has the p-value of 0.011, PR has the p-value of 0, SI has the p-value of 0.011 and FL has the p-value of 0.094. Since 0.006, 0.017, 0.011, 0 and 0.011 are less than 0.05, it implies that the relationships between the variables and age of respondent are significantly different, therefore reject H<sub>70</sub>. Besides, the p-value of FL (0.094) is more than 0.05 which means the relationship between the variable and age of the respondent is not significantly different. So, FL will not proceed with the Duncan and Dunnett T3

test. The significant difference also resulted in a homogeneity value. The homogeneity value of IA (0.045) is less than 0.05, so it will proceed to the Dunnett T3 test. On the other hand, the homogeneity values of PU (0.259), PEOU (0.52), PR (0.433) and SI (0.659) are more than 0.05 so it will proceed to the Duncan Post Hoc Test

### Table 4.3.4.1.1: Dunnett T3 Post Hoc Test for IA and Age

	(I) Age (Years Old)	(J) Age (Years Old)	Mean Difference (I-J)	Sig.
Dunnett T3	18 to 25	26 to 35	-0.40801	0.147
		36 to 45	-0.73763*	0.006
		46 to 55	0.67328	0.233
		≥ 55	0.15328	1.000
	26 to 35	18 to 25	0.40801	0.147
		36 to 45	-0.32962	0.754
		46 to 55	1.08129*	0.037
		≥ 55	0.56129	0.994
	36 to 45	18 to 25	0.73763*	0.006
		26 to 35	0.32962	0.754
		46 to 55	1.41091*	0.009
		≥ 55	0.89091	0.936
	46 to 55	18 to 25	-0.67328	0.233

Intention to adopt BNPL

			-
	26 to 35	-1.08129*	0.037
	36 to 45	-1.41091*	0.009
	≥ 55	-0.52000	0.997
≥55	18 to 25	-0.15328	1.000
	26 to 35	-0.56129	0.994
	36 to 45	-0.89091	0.936
	46 to 55	0.52000	0.997

#### The Rise of Buy -Now-Pay-Later (BNPL) Service in Malaysia

\* The mean difference is significant at 0.05 level

Source: Developed for the research

Based on table 4.3.4.1.1, it illustrates 36-45 years old has a significant difference with 46-55 years old as the significant value of 36-45 years old (0.006) and 46-55 years old (0.009) is less than 0.05. By looking at the mean difference, it demonstrated that aged above 55, followed by aged 26-35, aged 46-55 has more emphasis on the IA and aged 18-25 (above age of 55> age of 26-35> age of 46-55> age of 18-25). While others have no significant difference to IA.

Table 4.3.4.1.2 : Duncan Post Hoc Test of PU and Age

Age (Years Old)	Subset $\alpha = 0.05$	
	1	2
18-25	3.4353	3.4353
26-35	-	3.9032
36-45	-	3.9091
	18-25 26-35	1 18-25 3.4353 26-35 -

### The Rise of Buy -Now-Pay-Later (BNPL) Service in Malaysia

46-55	2.8000	-	
≥ 55	3.6667	3.6667	
Sig.	0.0890	0.3770	

Source: Developed for the research

Table 4.3.4.1.2 has illustrated the age of 18-25 and the age above 55 have no significant difference in PU. The age of 26-35 is more emphasised on the PU than the age of 46-55 because the alpha of age 26-35 (3.9032) is more than the age of 46-55 (2.8000). Next, the age of 36-45 is more emphasised on the PU than the age of 26-35 because the alpha of age 36-45 (3.9091) is more than the age of 26-35 (3.9032).

	Age (Years Old)	Subset o	u = 0.05
		1	2
Duncan	18-25	3.4452	3.4452
	26-35	-	3.6452
	36-45	-	3.9091
	46-55	2.8000	-
	≥ 55	-	4.1667
	Sig.	0.0900	0.0830

 Table 4.3.4.1.3: Duncan Post Hoc Test of PEOU and Age

Source: Developed for the research

Table 4.3.4.1.3 illustrated people who are between 18 to 25 years old have no significant difference in PEOU. Moreover, the age of 55 and above is the most emphasis on the PEOU as the alpha value (4.1667) is the highest. The second highest emphasis on the PEOU is the age of 36-45 followed by the age of 26-35 and lastly the age of 46-55 which the alpha value is 3.9091, 3.6452, and 2.800 accordingly.

Table 4.3.4.1.4: Duncan Post Hoc Test of PR and Age

	Age (Years Old)	Subset o	$\alpha = 0.05$
		1	2
Duncan	18-25	3.1288	3.1288
	26-35	2.5613	2.5613

36-45	2.5273	_
46-55	-	3.3600
≥ 55	3.2000	3.2000
Sig.	0.1030	0.1030

Source: Developed for the research

Table 4.3.4.1.4 has illustrated the age range of 18-25, 26-35, and ages above 55 years old have no significant difference with the PR because there are similarity figures in both column 1 and column 2. Furthermore, people who are 46-55 years old (3.3600) put more emphasis on the PR compared to those aged 36-45 years old (2.5273).

	Age (Years Old)	Subset for alpha= 0.05	
		1	2
Duncan	18-25	3.2342	3.2342
	26-35	3.5290	3.5290
	36-45	-	3.9273
	46-55	2.6400	-
	≥ 55	3.0667	3.0667
	Sig.	0.0610	0.0700
	6		

Table 4.3.4.1.5: Duncan Post Hoc Test of SI and Age

Source: Developed for the research

Table 4.3.4.1.5 has illustrated people aged 36-45 put more emphasis on SI than those aged 46-55 as the alpha of 36-45 years old (3.9273) is more than 46-55 years old (2.6400). Besides, the age of 18-25, 26-35, and age above 55 have no significant difference in SI.

## 4.3.4.2 One Way ANOVA of INC

Duncan	INC (RM)	Subset for alpha =0.05
		1
ΙΑ	< 2,000	3.299656357
	>8,000	3.5166666667
	6,001 - 8,000	3.533333333
	4,001 - 6,000	3.611764706
	2,000 - 4,000	3.688000000
	Sig.	0.314134269
PU	< 2,000	3.393127148
	4,001 - 6,000	3.482352941
	6,001 - 8,000	3.60000000
	> 8,000	3.650000000
	2,000 - 4,000	3.7706666667
	Sig.	0.330896911
PEOU	< 2,000	3.46990000
	6,001 - 8,000	3.66670000
	4,001 - 6,000	3.67650000
	2,000 - 4,000	3.68000000
	>8,000	3.70830000

Table 4.3.4.2.1: One-Way ANOVA of INC

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	Sig.	0.40700000
PR	6,001 - 8,000	2.666666667
	4,001 - 6,000	2.705882353
	2,000 - 4,000	2.768000000
	>8,000	3.00000000
	< 2,000	3.182817869
	Sig.	0.080916988

H<sub>80</sub>: There is no significant difference between IA, PU, PEOU, PR, SI, FL and INC.

According to appendix 4.3.4.2.1 demonstrated that IA has a p-value of 0.021, PU has a p-value of 0.040, PEOU has a p-value of 0.115, PR has a p-value of 0.00, SI has a p-value of 0.066 and FL has a p-value of 0.382. Since IA (0.021), PU (0.04), and PR (0.000) are less than 0.05, it implies that the relationships between the variables and INC are significantly different, therefore rejecting H<sub>80</sub>. Besides that, SI (0.066), FL(0.382) and PEOU (0.115) which p-value more than 0.05 which indicates that the relationship between the variables and INC is not significantly different, so Duncan and Dunnett T3 tests will not proceed. The significant difference also resulted in a homogeneity value. The homogeneity value of IA (0.973), PU (0.527), and PR (0.163) is more than 0.05. Since the values are more than 0.05 then it will proceed to Duncan Post Hoc Test. In the table 4.3.4.2.1 indicates that there are no differences between IA, PU, PEOU, PR, and INC as there is only one subset for alpha equal to 0.

# **4.4 Conclusion**

In conclusion, the descriptive, factor, and inferential analysis are being interpreted based on the result generated by SPSS version 27.0. Therefore, the results obtained will be carried on to the next chapter to determine the limitations and to finalise the final conclusion as a summary.

# **CHAPTER 5 : DISCUSSION, CONCLUSION**

# AND IMPLICATIONS

# **5.0 Introduction**

In this part, the results in Chapter 4 will be summarised and discussed. The reason and main goal of doing this step is to transfer the numeric results into wording results. Moreover, summary of findings, managerial implications, theoretical implications, limitation of study, and recommendations for the study will be stated and written clearly. This is to help the researchers to go through the final thoughts of the research study.

# **5.1 Discussion of Major Findings**

Independent Variables	β	Р	Decision
Perceived usefulness (PU)	0.591	0.000	
Perceived ease of use (PEOU)	0.099	0.043	-
Financial Literacy (FL)	0.081	0.046	Significant
Social Influence (SI)	0.285	0.000	
Perceived risk (PR)	-0.041	0.222	Insignificant

Table 5.1.1: Table of Hypothesis Statement Acceptance

## 5.1.1 Relationship between PU and IA

From table 5.1.1, PU is found to be significant towards the IA in Malaysia. This result can be supported by Jiwasiddi et al. (2019) as the PU is an important factor to influence the adoption of BNPL, as consumers may view BNPL as a highly beneficial feature to utilise. According to Azmi, Zahari, Yunus, Mohsin & Isa (2022), the willingness of an individual to accept the newest information technology solution if it may increase their productivity and efficiency demonstrates the positive association between PU and IA. As such, the practicality of payment methods will increase the individuals' IA. Furthermore, the usefulness of the BNPL will also attract more people to adopt it since it satisfies their daily needs.

Since past studies coincide with the study findings, this reinforces the fact that there is a significant correlation between PU and IA in Malaysia because PU's p-value is less than 0.0. This is because consumers are more likely to use the technology that is useful to them and help in increasing the efficiency. This will also indirectly lead to time savings as payments can be done easily and faster. In addition, for customers who have a limited spending budget in a month, BNPL will highly benefit them in reducing the total expenses as the payment can be done on an instalment basis. In conclusion, a technology that can provide consumers and users useful features will always be the preferred selection.

## 5.1.2 Relationship between PEOU and IA of BNPL

According to the result, PEOU has lesser than 0.05 p-value which means it has a significant relationship with IA. Moreover, this finding also shows a positive association between PEOU and IA. This indicates that if the BNPL is easy to use, IA will increase as well. There are a few past studies that showed that PEOU is significantly related to the IA.

According to Alwi et al. (2019), PEOU brings a positive impact to the IA. The study stated that most people, especially beginners, are more likely to adopt a system if they view the system to be simple to use or user-friendly. This might encourage a favourable attitude among individuals towards the adoption of the services. Study also suggests that if innovations are hard to understand and not user friendly, there will be less individuals to adopt them. Furthermore, Lien, et al. (2020) mentioned that when a fintech service is easy to use, it may deliver great experiences for users and cater to their demands. This would encourage more individuals to adopt fintech service as it is easy to understand and apply.

The relationship stated for PEOU and IA can also shows that consumers are more likely to use the service, its benefits, and how to use it if they believe that BNPL is easy to use. This results in higher service confidence, which favourably influences the decision to adopt BNPL. Also, customers are more inclined to experiment with new payment options if they have confidence in their ease of use. In addition, the fact that BNPL is a relatively new and novel payment mechanism contributes to the favourable link between PEOU and IA. If consumers perceive BNPL is difficult to use, they may be reluctant to embrace them. However, if they perceive BNPL as simple use, they are more likely to adopt it. Moreover, the PEOU of BNPL can impact consumers' perceptions of the service's usefulness and relevance to their needs. Consumers are more likely to view BNPL as a helpful and pertinent payment option to meet their needs and hence consumers would have a higher IA.

### 5.1.3 Relationship between PR and IA

According to this study, PR is found to be insignificant towards the IA as p-value is greater than 0.05. However, the outcome contradicts some past studies (Koenig-Lewis et al., 2015) where the PR is having a significant relationship with the IA. The outcome of study can be supported by Priya et al. (2018); Munoz-Leiva et al. (2017); by Jagadhita & Tjhin (2023) where PR linked with BNPL does not significantly influence the IA. Hence, it seems that BNPL users do not perceive any significant risks in using BNPL services for conducting any transactions. This is because it might be due to familiarity with the service or app. Consumers who are familiar with BNPL may have already used it before and may have had a positive experience. Thus, it does not alter their decision to use it as their preferred payment method for online shopping or conduct any transaction. Besides, the consumers may regard the benefits of BNPL, such as convenience and flexibility, to be more significant than the PR. Therefore, they may still be willing to adopt the service despite the PR. Other than that, consumers may only use BNPL for small purchases

and have the financial capacity to pay the small amount on time. Therefore, they may perceive less risk associated with the service. This finding is supported by Chakiso (2019) which indicates that PR has no significant relationship with users' and nonusers' attitudes toward the IA.

### 5.1.4 Relationship between SI and IA

According to the result, the p-value of SI is zero which is less than 0.05. As this result, a conclusion can be made where SI is having a significant relationship with IA. In addition, this finding shows a positive association between SI and IA; as a result, when the value of SI rises, it will increase the IA.

By contrasting our results with those of prior studies, it is evident that Koenig-Lewis et al. (2015) also showed a positive correlation between SI and IA in Malaysia when it comes to such financial services. The previous finding's conclusions defined SI as one of the most dominant variables to influence the adoption of BNPL service. It is because the value of using such payment methods will tend to increase when a critical mass of a social group tends to adopt BNPL service and encourages their friends, relatives, and loved ones to adopt it (Nicolaou, 2022). Thus, the combination of SI in e-commerce has been shown to have a direct relationship with IA.

Furthermore, it can be deduced from the high correlation between SI and intention to embrace BNPL that all Malaysians anticipated that BNPL services would be more extensively used in their social context. This is due to the fact that employing BNPL services will be a more appealing choice for them when it comes to making an instalment payment in any online transaction. Due to the fact that today's consumers desire to buy things without paying interest fees, the BNPL service will be extensively embraced by a variety of socioeconomic groups because it is a Page **78** of **115**  payment option that incurs fewer costs. The researcher believes SI will significantly affect Malaysians' IA in Malaysia.

## 5.1.5 Relationship between FL and IA

As IA has lesser than 0.05 p-value, it means FL has a significant relationship with the IA which can be supported by Akbar et al. (2021) where FL significantly affects online service adoption with positive relationships. In addition, the findings of other scholars have shown a positive correlation between FL and the likelihood of adopting various fintech services which indicates that FL has a positive impact on the adoption of all fintech services (Yoshino et al., 2020).

As these past studies match the findings, this strongly demonstrates that FL has a significant relationship with IA. With this result and the support of past study, it can be concluded that financially literate people are better able to manage their debts, including those related to BNPL service. They may have a better understanding of how the BNPL service affects their credit score and overall financial situation. They are also more likely to pay off debt on time and avoid racking up a lot of debt. Because of this, BNPL service will draw customers with greater Fl, raising IA.

# **5.2 Research Implications**

## **5.2.1 Managerial Implication**

First and foremost, the adoption of the BNPL service is starting to become a new trend of online instalment payment methods. In order to ensure that the public is well-informed about BNPL service, numerous programmes should be carried out and made possible with government regulations. Therefore, customers would be more inclined to embrace this payment method due to its convenience and applicability in daily life. Once the functions of BNPL service have successfully demonstrated to the public, it will carry out the trend of using BNPL service. In addition, it will allow the public to enjoy an instalment payment option with no interest incurred and thus enhance their financial management.

Moreover, a new wave of BNPL service providers is also introducing BNPL to the market's small and medium-sized enterprises. Not only that, but numerous major retailers are also beginning to collaborate with BNPL service providers since it will enable them an easy and practical way to run a legitimate and efficient business. The reason for this is because modern consumers like to have more freedom to buy whatever they want or need whenever they want it. Hence, given that BNPL has no credit access requirements for payment, they will favour embracing it. Along with that, offering BNPL service enables firms to access clients who have yet to obtain or are ineligible for credit cards. Given that the objective of providing BNPL service is to enable users to benefit from 0% interest through transactions on credit terms. As a result, it will cost far less compared to utilising a credit card, and it will make BNPL service more well-liked among customers of all ages. According to the study, Canada's acceptance of BNPL payments increased 30% quicker in comparison to the US in just a year, and it is anticipated that the payment method would increase by over 63% by year 2022. These instances serve as proof that adding BNPL service to the company's platforms is advantageous for all parties.

In addition, all enterprises should advertise the BNPL service via website message. In order to raise customer awareness of the availability of this service, it should be noted that the BNPL service is now accessible through the platform at the home page of the website. Customer service should be used as well to guarantee that any inquiries from the consumers can be answered and that suitable instructions on how to utilise the payment method can be provided. Since it would introduce the BNPL to individuals of all classes, it will raise awareness of this service, which is of utmost importance to the correlation between SI and IA. Furthermore, the company's social media channels should create instructive information about the BNPL service and enable consumers to take advantage of additional promotions when using the BNPL service as their payment option. Other than that, it is advisable that your email marketing list consists solely of customers who have voluntarily given their consent to receive promotional emails. As a result, these individuals are more likely to be deeply interested and involved with your business. Since BNPL as a new way of payment option is bound to be thrilling for the customers, all the enterprises could further elevate their excitement by introducing it through a unique promotional offer. After making the first announcement about the launching of the BNPL offer, it is important to maintain interest by consistently bringing it up. This strategy serves as a reminder for current customers and also helps spread awareness to potential new customers. Sales for the company will increase right away, and the BNPL service will gain more exposure as a result (Square, 2022).

Besides that, our findings are important as they will help in boosting the quality of society. This is because BNPL is a system that can help in increasing access to credit, management of one's finances and also boosting economic growth. Furthermore, the government and researchers are also encouraged to utilise the findings from the BNPL study in order to measure consumer behaviour toward the adoption of new technologies in future. Other than that, the study was purposely created to help those researchers or academics to increase the knowledge background which related to consumer behaviour in adopting new technology in the recent trend, as well as find the strategy for persuading non-users of BNPL to become users. The government and researchers can strengthen the PEOU, PU, SI and FL to attract more users to adopt BNPL. As a result, it may assist to increase IA.

## **5.2.2 Theoretical Implication**

As a result of the study, a clear picture of a significant relationship was shown between IA and PEOU, PU, SI and FL. However, only PR shows no significant relationship to the IA. From that, it can mean that users of BNPL do not take PR as a consideration while adopting BNPL. As a result, future researchers are encouraged to utilise this study as a reference, as it may aid the researcher in further identifying IA.

Other than that, future researchers who are interested in this field can find the variables that affect consumers' views of new technology and their readiness to adopt it by understanding the significance of PEOU and PU in BNPL adoption. Researchers can create practical plans to promote adoption and lessen possible barriers to adoption by examining these variables. Besides that, the significance of FL indicates that it is important for an individual to have the knowledge to make effective decisions about finance. So, people who are interested in this field can use this study to raise customer financial awareness and encourage responsible BNPL use. Other than that, researchers can better understand the effects of social networks and peer influence on customers' adoption behaviour by looking at how SI plays a part in IA. This can offer insightful information as SI result analysis will show the people who viewed this study know which group of people such as family members, friends, and relatives have the highest possibility to affect the IA through social factors, like peer pressure or society standards, affect customer behaviour and the adoption of technology.

As a result, the significance of the PEOU, PU, SI, FI, and the insignificance of PR help regulators, researchers, and developers to know more about consumer behaviour when adopting a new technology or system. In short, the regulators,

researchers and developers can take these variables into consideration during the improvement or implementation of their BNPL.

# 5.3 Limitations of Study

The first limitation of study is too much focus on recent consumer behaviour in relation to BNPL. The study focuses only on recent consumer behaviour towards BNPL, which leads to the problem of less reflection of larger trends and patterns in the future. Consumer behaviour may alter from time to time. It may be impacted by a variety of variables, such as economic situations, societal standards, technical improvements and others. These factors may have an impact on how consumers adopt BNPL, as well as their preferences and attitudes towards BNPL. In order to guarantee that the results of studies on BNPL are reliable and relevant throughout time, researchers must take into account the time dimension.

In addition, there is a lack of comparability in the study because BNPL is considered new to the market. Most BNPL providers do consider newly established businesses. Due to the study's boundary being too distinctive, making it challenging to compare its results to other studies. This limitation would enhance the difficulty to make broader conclusions.

Lastly, there may be a large behavioural difference in the survey questions between users and non-users. However, this survey mainly considers the perspective of users and unintentionally limits the non-users' behavioural perspective. For example, the survey questions being distributed are not non-user friendly as non-user of BNPL could not give an accurate answer in the survey questions. As a result, this would result in inaccurate findings for the general view towards IA.

## 5.4 Recommendations of Study

Given that BNPL is still in its early stages, researchers should put more effort in figuring out that real phenomenon and capture details of consumers' IA in Malaysia. Some restricting factors for the study were found which should be improved.

The issue of less reflection of larger trends and patterns in the future due to too much focus on recent consumer behaviour in relation to BNPL should be made aware by future researchers. In order to tackle this limitation, future researchers are recommended to use secondary data sources to have a broader perspective on consumer behaviour on BNPL. For example, they can get the data from government reports or industry reports for the study. This will help to improve the study quality by identifying future patterns and trends of BNPL which may not be immediately apparent from the study's primary data. Another way to avoid this issue is to consider a potential future scenario and trend that may affect the consumer behaviour of BNPL. Researchers are recommended to conduct scenario planning exercises or apply predictive modelling to get a better outcome for the study of consumer behaviour toward BNPL.

As BNPL is new in the market of Malaysia, it may show low comparability in the study. Therefore, it is recommended for future study to use qualitative approach instead of quantitative approach. This is because a qualitative approach is more feasible and useful for exploring new or emerging phenomena such as the rise of

BNPL in the market. This approach allowed the researcher to have a more in-depth exploration of individual experience and perspective compared to the quantitative approach.

It is undeniable that there will be an unbalanced result in between the users and nonuser, it will generate behavioural differences toward the IA. Future researchers are encouraged to consider the perspective of non-users in order to obtain more accurate overall perspective results as this study is mainly focused on the BNPL user's perspective.

## **5.5 Conclusion**

In a nutshell, the aim of this study is to study the factors that affect the IA in Malaysia. To examine this thesis, several tests have been done to ensure the result based on the questionnaire data collected. As a result, the study identified that PU, PEOU, SI, and FL have a significant relationship towards the IA of the BNPL services in Malaysia. However, the PR which is the only variable that has an insignificant relationship towards IA in Malaysia. In this case, it does not mean that PR is totally not important compared to the other variables, but PR is somehow having a weaker relationship with IA in Malaysia. Lastly, the study will help the future researchers in gaining more knowledge and for the business sector as well as for society. This study will help the government and banking industry to understand more about the BNPL service as BNPL service is highly related to the banking industry. Thus, helping both mentioned parties to boost the IA as this BNPL will be a trend for the upcoming years.

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# **Appendix**

### Appendix 1.1.1: Companies Adopted Buy-Now-Pay-Later (BNPL) Service

Company	Launching	Late Payment Fee	Credit Limit	Tenure
Name	Date			
hoolah	1st March	- RM7.50 to RM75 per late	Based on user	3 months
novian	2018	payment depends on order	assessment	
Hoolah		amount:		
(CISION, 2022)		RM0 to 99.99 - RM7.50		
(Hoolah, 2021)		RM100 to 499.99- RM25		
		RM500 and above - RM75		
			<b>D</b>	<b>D</b> 1
GrabPay	November	RM10 account reactivation	Based on user	Pay the
	2019	fee if paying by instalment	assessment	following
Grab		(max RM30 per purchase)		month or 4
				months
	Last	RM30 per late payment	- Non credit-	3 months
A	quarter of	(max RM60 per purchase)	card users:	
	2020		RM1,500	
Atome			- Credit-card	
(Atome, 2022)			users:	
			RM5,000	
			I	

fave	July 2021	1.5% of outstanding payable	Based on user	3 months
		amount per late payment	assessment	
FavePay Later				
	Early 2021	RM10 account reactivation	Maximum	Pay at the end
S Shopee PayLater		fee	RM10,000	of the month or
Spaylater			based on user	2, 3, 6 or 12
(Hazli, 2022)			assessment	months
(114211, 2022)				
- <del>:-</del> Split	April 2020	None	Based on user	Up to 3 months
			assessment	
Split				
(Digital News				
Asia, 2021)				
• <b>&gt;</b> myIOU	June 2021	RM5 or 1% on outstanding	RM1,000 to	2, 3 or 6
		amount	RM10,000	months
myIOU				
(myIOU, 2022)				

# Appendix 3.3.2.1: Questionnaire

Items	Content	Original Content	Adapted From	
			-	
Perceived	Usefulness			
PU1	I save a lot of time when using BNPL services.	Customers save a lot of time when using fintech services.	(Lien, et al., 2020)	
PU2	BNPL services can meet my needs.	Fintech service can meet the needs of customers.	(Lien, et al., 2020)	
PU3	BNPL services have improved my productivity. (make payment smoother)	E-wallet services have improved my productivity.	(Trivedi, 2016)	
PU4	I find BNPL services useful in the buying process.	I find E Wallet useful in the buying process.	(Trivedi, 2016)	
PU5	Using the BNPL services helps me buy easily.	Using an E Wallet helps me buy easily.	(Trivedi, 2016)	
Perceived 1	Perceived Ease of Use			
PEOU1	BNPL services are easy to learn.	Mobile payment technology is easy to learn.	(Koenig-Lewis et al., 2015)	
PEOU2*	I generally find BNPL services are complicated to use.	I generally find mobile payment services to be complicated to use.	(Koenig-Lewis et al., 2015)	

PEOU3	My interaction with the BNPL payment procedure is generally clear and understandable.	My interaction with mobile payment procedures is generally clear and understandable.	(Koenig-Lewis et al., 2015)
PEOU4	Instructions on the BNPL service system are clear and easy to understand.	Instructions on the fintech service system are clear and easy to understand.	(Lien, et al., 2020
PEOU5	I can use the BNPL services system everywhere.	Customers can interact with fintech service systems everywhere.	(Lien, et al., 2020
Perceived	Risk		
PR1*	I feel secure while making payments via BNPL.	I feel secure while making payments via mobile phone.	(Koenig-Lewis e al., 2015)
PR2	Making mobile payments is risky.	Making mobile payments is risky.	(Koenig-Lewis e al., 2015)
PR3	I would not feel totally safe providing personal private information over the BNPL system.	I would not feel totally safe providing personal private information over the mobile payment system.	(Lu, Yang, Chau & Cao., 2011)
PR4	I am worried about using BNPL services because my account may be accessible by other people.	I'm worried about using mobile payment services because other people may be able to access my account.	(Lu et al., 2011)
PR5	I would not feel secure sending sensitive information across the	I would not feel secure sending sensitive information across the mobile payment system.	(Lu et al., 2011)

SI1	BNPL service is in line with the development trend of society.	Fintech service is in line with the development trend of society.	(Lien, et al., 2020)
SI2	My work or study environment supports BNPL services.	Customer's work/study environment supports fintech services.	(Lien, et al., 2020)
SI3	People who are important to me would probably suggest that I should use BNPL services.	People who are important to me would probably suggest that I should use mobile payment technology.	(Koenig-Lewis et al., 2015)
SI4	People who are important to me expect me to use BNPL services.	People who are important to me expect me to use mobile payment technology.	(Koenig-Lewis et al., 2015)
SI5	People who are important to me are likely to recommend using BNPL services.	People who are important to me are likely to recommend using mobile payment technology.	(Koenig-Lewis et al., 2015)
Financial L	literacy		
FL1	I closely monitor my spending behaviour.	I closely monitor my spending behaviour.	(Haws, Bearden, Nenkov, 2012)
FL2	I am able to work effectively toward long term financial goals.	I am able to work effectively toward long term financial goals.	(Haws et al, 2012)
FL3	I carefully consider my needs before making purchases.	I carefully consider my needs before making purchases.	(Haws et al, 2012)

FL4	I am able to resist temptation in order to achieve my budget.	I am able to resist temptation in order to achieve my budget.	(Haws et al, 2012)
FL5	I am responsible when it comes to how much I spend.	I am responsible when it comes to how much I spend.	(Haws et al, 2012)
Intention to	o adopt BNPL		
IA1	I believe it is worthwhile for me to adopt BNPL services.	I believe it is worthwhile for me to adopt mobile banking services.	(Alsheikh & Bojei, 2014)
IA2	My general intention to use BNPL services is high.	My general intention to use mobile banking services is high.	(Alsheikh & Bojei, 2014)
IA3	I plan to use BNPL services in the next few years.	I plan to use mobile payment technology in the next few years.	(Koenig-Lewis et al., 2015)
IA4	Two years from now I intend to pay for purchases with BNPL services.	Two years from now I intend to pay (at least occasionally) for purchases with a mobile phone.	(Koenig-Lewis et al., 2015)
IA5	I intend to use BNPL services in the near future.	I intend to use mobile payment technology in the near future.	(Koenig-Lewis et al., 2015)

Adapted From	Variables	Reasons
	PU1 PU2	According to Lien et al. (2020), there are four questions in the section of PU. A total of 2 questions out of 4 are adopted to the BNPL study because two of them have alpha values that are greater than 0.8 and suit the research study context of BNPL. Remaining 2 questions are not selected due to being irrelevant to the study.
	PEOU4 PEOU5	Moreover, there are a total of 3 questions related to PEOU and only 2 of them are adopted to become part of the questionnaire because two of them are relevant to the study.
	SI1 SI2	The decision of not adopting the question "The operations performed in fintech service are quite simple for customers" due to duplication with PEOU1.
(Lien, et al., 2020)		Lastly, in the part of SI, there are a total of 2 questions out of three that have been selected as the part of the questionnaire because two of them are relevant to the study. The reason for not choosing the remaining question is because the structure of the question is not suitable for the questionnaire.
(Trivedi, 2016)	PU3 PU4 PU5	From the 6 questions in Trevidi (2016), 3 questions are selected because their alpha values are greater than 0.7. The reason for not choosing the other 3 questions is that 2 of the questions' alpha values are lower than 0.7, while another 1 question is about work performance which is not related to BNPL.
	PEOU1 PEOU2 PEOU3	Koenig-Lewis et al. (2015) questions are being adapted because the article is frequently and highly cited. This increases the reliability and value of the questions from the article.

# Appendix 3.3.2.2: Reasons of Adapting Journals

(Koenig-Lewis et al., 2015)	SI3 SI4 SI5	For PEOU, SI, and IA, all 3 questions are being chosen as all the 9 questions suit the research study.
	IA3 IA4 IA5	For PR, there are 3 questions in total but only 2 are being chosen as it is relevant to our research study, and one of the questions that is similar to another question in the PR section was not chosen.
	PR1 PR2	
(Lu et al., 2011)	PR3 PR4 PR5	According to Lu et al. (2011), the article is frequently and widely cited. Besides that, all the questions have been chosen because their alpha value exceeds 0.8 and all questions have been utterly fit into the research study.
(Haws et al, 2012)	FL1 FL2 FL3 FL4 FL5	From many questions in Haws et al. (2012), 5 questions were selected and cited in the questionnaire. The reason is that these questions fit into the BNPL theme. In addition, it is difficult to find resources related to financial literacy. The study from Haws et al. (2012) is well-known and frequently cited by other researchers.
(Alsheikh & Bojei, 2014)	IA1 IA2	From 6 questions in Alsheikh and Bojei (2014), 2 questions were selected and cited in the questionnaire. This is because 2 of them are relevant to the study, 3 of them are repeated in the questionnaire and another 1 question is not relevant to the study.

Feedback / Comment	Action Taken	Justification	Amended
(23) Section A: Frequency of using BNPL service in a month will become high debtedness	Change the question by not specific the duration	The term "month" will create misunderstanding towards some respondents.	Section A: Frequency of using BNPL service. Never (proceed to section B) Once before Once per year Once per six month More than once per month
(2) Section A: Income level value duplicate	Added "<" or ">" to the question	Respondents confused about which answer to choose. Respondents can provide a more accurate answer after adding "<" or ">" to the question.	Income level ( monthly) • < RM1,000 • RM1,000 • RM2,000 • RM2,001 • RM3,000 • RM3,001 • RM4,000 • > RM4,000
(1) Remove name and date (PDPS)	Removed name and date in PDPS	To increase the level of privacy towards respondents.	-
(2) Suggest to ask respondents provide comments in "others" column	Add a line after the "others" option	To let respondents provide their own opinion. Respondents' opinions can assist in providing additional ideas for this study.	<ul> <li>9. Which sector do you usually use for BNPL service? (can tick more than one)</li> <li>Fashion <ul> <li>Home and living</li> <li>Beauty</li> <li>Sports and outdoor</li> <li>Others:</li> <li>Others:</li> </ul> </li> <li>10. Which companies do you usually use for their BNPL service? <ul> <li>Grab pay</li> <li>Hoolah</li> <li>Split</li> <li>My IOU</li> <li>Atome</li> <li>Fave pay</li> </ul> </li> </ul>

### Appendix 3.4.2.1: Pilot Test Feedback and Comment

[			CD productor
			• SPaylater Others:
			Others
(2) Section A: Amount spent in BNPL value duplicate	Added "<" or ">" to the question	Respondents confused about which answer to choose. Respondents can provide a more accurate answer after adding "<" or ">" to the question.	Section A: Amount spent by using BNPL service in at a month
(1)Provide	Add definition	To let respondents more	Perceived Usefulness
definition for each independent variable (IV)	after each IV	understanding about each IV.	(Believes that using BNPL services will enhance payment performance)
			Perceived Ease of Use
			(individual's perception that using BNPL services will be easy to handle)
			Perceived Risk
			(subjective expectation of a loss or sacrifice in using BNPL services)
			FinancialLiteracy(FinancialknowledgetowardsBNPL services)
			Social Influence
			(Individual's social environment and relationships that influence the adoption of BNPL services)
<ul> <li>(2) Suggest put from</li> <li>"Strongly Disagree"</li> <li>to "Strongly Agree" (1 to 5)</li> </ul>	Changed the format, "Strongly Disagree" to "Strongly Agree" (1 to 5)	It confuses some respondents if putting "Strongly Agree" to "Strongly Disagree" (5 to 1).	-

(6) Section A: Why is the income range only until RM4000? Why not RM4000 and above?			
(6) IA5: Usually on time sure want have penalty	Removed the question	The question is common sense.	-
(6) FL3: question not related with DV	Removed the question	To avoid respondents misunderstanding the question.	FL3: I believe that younger age groups that consist of lower financial literacy are more likely to adopt BNPL service.
(6) PEOU 1 write until convenience is enough	Removed the sentence after convenience	Convenience has the same meaning with the sentence after it.	PEOU1: I believe that BNPL services are convenient.
(6) SI2: the word 'people' is too general	Changed the "people" to family and relative	To let respondents more understanding about the question.	SI2: I will adopt BNPL services when family and relatives recommend using it.
(6) PR4, SI1, SI4 Don't be too complicated on the question (be specific)	Splitted the information inside PR4, SI1, SI4	Provide simple and easy to understand questions for respondents to answer.	<ul><li>PR4: BNPL services will require users to take longer to make transactions due to network responsiveness.</li><li>SI1: I will adopt BNPL services when I see my friends and colleagues using it.</li></ul>
			SI4: I will adopt BNPL service after seeking recommendations from someone who has credibility.
(6) SI5: check journal (difference between norms and trends), online opinions	Removed the words of norms and changed online	Trends more suitable for the concept of the question.	SI5: I will adopt BNPL services due to social media and trends.

change to social media	opinions to social media.		
(6) PEOU4 and PEOU5 contradict	Changed PEOU5 question	To avoid respondents misunderstanding the question.	PEOU5: I think it is easy to learn Fintech Service without spending too much time. (Original question)
			I think it is easy to learn about BNPL services without spending too much time. (Ques)
			(Hu,et al, 2019)
(6) PEOU 3: the word 'comfortable' does not suit the question. Check with journal	No action taken	The question related to the journal content which will increase the intention to adopt BNPL service.	PEOU3: I think that BNPL services are comfortable to use.
(6) PR3: it is better to just put stress instead of psychological stress	Changed "psychological stress" to "stress"remo	Use simple words to let respondents understand the question better.	PR3: BNPL services users may experience stress when they are unable to operate the software successfully.
(6) FL5: financial stress change to financial constraint	Changed financial stress to financial constraint	To avoid respondents misunderstanding the question.	FL5: I believe that BNPL is suiting my financial literacy to relax my financial constraint in the long-term.
(6) FL1: Financial flexibility change to financial expenses	Changed financial flexibility to financial expenses	Financial expenses is more suitable to use for the FL1 question.	FL1: I believe that when I start to use the BNPL service, my financial expenses tend to reduce.
(16) PR5: BNPL might be a risk, creating more financial problems for the younger generation. Privacy and safety issues	No action taken	Perceived risk is already included in independent variables.	-

will be another concern.			
(18) Section A: question number 8 to 10 is not relevant for those who are not using BNPL.	Added "Proceed to the following section (Section B) and skip the question for 8 to 10" at question 7"	To strengthen and highlight the additional information written in question 7.	Section A: Frequency of using BNPL service. "Proceed to the following section (Section B) and skip the question for 8 to 10".
(2), (6) & (12) PR1: BNPL services are risky is too general	Changed PR1 question	To let respondents more understanding about the question.	PR1: I feel secure while making payments via mobile phone. (Original question)
			BNPL services users feel secure when using BNPL to make payments. (Ques) (Koenig-Lewis, et al., 2015)
(15) Focus on those respondents with BNPL experience	No action taken	As this study is targeting all Malaysians, so both zero experience, and experienced users will be our targeted respondents.	-
(15) If the respondent has zero experience in BNPL, still considered as your study's target respondents?	No action taken	Respondents that fulfil the requirement become target respondents for the study. Requirements : 1. 18 years old and above 2. Malaysian	-

### Appendix 3.4.3.1: Rule of Thumb

Range	Internal reliability
0.9 <u>&lt;</u> α	Perfect
$0.8 < \alpha \le 0.9$	Desirable
$0.7 < \alpha \le 0.8$	Good
0.6 < α <u>&lt;</u> 0.7	Moderate
$0.5 < \alpha \le 0.6$	Poor
α <u>&lt;</u> 0.5	Undesirable

Source : (Sharma, 2016)

### Appendix 3.5.1.1 : Nominal Scale

	No	Object/Variables	Scale of Measurement
Section A (demographic information)	1	Gender	Nominal
	2	Race	Nominal
	3		Ratio
	4 Ma		Nominal
	5	Income Level	Ratio
	6	Highest Education level	Nominal
	7	Frequency of using BNPL service	Ratio
	8	Amounts spend by using BNPL service	Ratio

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9	Sector that usually use for BNPLservice	Nominal
10	Companies that usually use for BNPL service	Nominal

No	Question	Coding
1	Gender	"Male" = 1
		"Female" = 2
2	Race	"Chinese"=1
2	Ruce	
		"Malay" =2
		"Indian" 3
		"Others" = 4
3	Age	"18-25 years old" = 1
5	1150	
		"26-35 years old" = 2
		"36-45 years old" = 3
		"46-55 years old" = 4
		"Above 55 years old" = 5
4	Maniana atatas	"C:1-" 1
4	Marriage status	"Single" = 1
		"Married" =2
		"Divorces" = 3
		"Widow" = 4
5	In some lovel (menthly)	"< DM1 000" - 1
5	Income level (monthly)	"< RM1,000" = 1
		"RM1,000 - RM2,000" = 2

# Appendix 3.6.3.1 : Data Coding

		"RM2,001 - RM3,000" = 3		
		"RM3,001 - RM4,000" = 4		
		" > RM4,000" = 5		
6	Highest education level attained	"SPM/ O-level" = 1		
0	Tighest education level attained			
		"STPM /A-level" = 2		
		"Diploma" = 3		
		"Bachelor's Degree" = 4		
		"Master"s Degree" = 5		
		"PHD/ Doctorate's degree" = 6		
		"Professional Certificate		
		(Eg:ACCA/CPA/CFA/CIMA)" = 7		
		"Other" = 8		
7	Frequency of using BNPL service in a	"0 times" (proceed to section B) = 1		
	month.	"1-2 times" = 2		
		"3-4 times" = 3		
		"5-6 times" = 4		
		"7 times and more" = 5		
8	Amount spend by using BNPL service in a	"< RM50" = 1		
	month	"RM50- RM100" = 2		
		"RM101 - RM300" = 3		
		"RM301 - RM500" = 4		

		"> RM500" = 5
9	Which sector do you usually use for BNPL	"Fashion" = 1
	service? (can tick more than one)	"Home and living" = 2
		"Beauty" = 3
		"Sports and outdoor" = 4
		"Others" = 5
10	Which companies do you usually use for	"Grab pay" = 1
10	their BNPL service?	"Hoolah" $= 2$
		"Split" = 3
		"My IOU' = 4
		"Atome" = 5
		"Fave pay" = 6
		"SPaylater" = 7
		'Others'' = 8

	Age (Years old)	Ν	Mean	Std. Deviation	ANOVA (Sig.)	Equity (Homogeneity)
IA		351	3.3533	0.94457	0.006	0.045
		31	3.7613	0.86011		
		11	4.0909	0.51663		
		5	2.6800	0.52154		
		3	3.2000	1.56205		
		401	3.3955	0.94323		
PU		351	3.4353	0.95529	0.017	0.259
		31	3.9032	0.83406		
		11	3.9091	0.59754		
		5	2.8000	0.61644		
		3	3.6667	1.15470		
	18-25	401	3.4783	0.94697		
	26-35					
PEOU	36-45	351	3.4452	0.73291	0.011	0.520
	46-55	31	3.6452	0.82859		
	≥ 55	11	3.9091	0.76053		
	Total	5	2.8000	0.54199		
		3	4.1667	0.62915		
		401	3.4707	0.74723		
PR		351	3.1288	0.73745	0	0.433
		31	2.5613	0.69937		
		11	2.5273	0.58837		
		5	3.3600	0.55498		
		3	3.2000	0.87178		
		401	3.0718	0.74682		
SI		351	3.2342	0.84324	0.011	0.659
		31	3.5290	0.91731		
		11	3.9273	0.66497		

# Appendix 4.3.4.1.1: One-Way ANOVA of Age

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	5	2.6400	0.63875		
	3	3.0667	1.00664		
	401	3.2673	0.85379		
FL	351	3.8883	0.71415	0.094	0.394
	31	4.2000	0.66533		
	11	4.1455	0.65171		
	5	4.2000	0.42426		
	3	4.0000	0.60000		
	401	3.9242	0.70925		

#### ANOVA Sum of Homogeneity Mean **Squares** df Square F Sig. value IA Between 10.175 4 2.544 2.914 0.021 0.973 Groups Within 345.697 396 0.873 Groups Total 400 355.872 PU 8.965 Between 4 2.241 2.538 0.040 0.527 Groups Within 349.736 396 0.883 Groups Total 358.701 400 PR 0.163 Between 13.832 4 3.458 6.510 0.000 Groups Within 210.340 396 0.531 Groups 400 Total 224.172 SI Between 6.400 4 1.600 2.222 0.066 0.032 Groups Within 285.182 396 0.720 Groups

#### Appendix 4.3.4.2.1: One-Way ANOVA of INC

	Total	291.582	400				
FL	Between Groups	1.871	4	0.468	1.048	0.382	0.504
	Within Groups	176.771	396	0.446			
	Total	178.642	400				
PEOU	Between Groups	3.594	4	0.899	1.868	0.115	0.089
	Within Groups	190.527	396	0.481			
	Total	194.122	400				



**Figures** 

 $Figure~3.1.~\underline{Ganbold},~S.~(2022).$  Number of BNPL Users SEA 2021, by Country. Retrieved from

https://www.statista.com/statistics/1305667/sea-number-of-bnpl-users-by-country/



*Figure 3.2.* Malaysia Population Pyramid 2023. Adapted from worldpopulationreview Retrieved from https://worldpopulationreview.com/countries/malaysia-population