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The Intention of Young Adults in Malaysia toward Using Buy Now Pay Later (BNPL) in an Online Shopping Environment

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Abstract

This study investigates the intention of young adults in Malaysia toward using Buy Now Pay Later (BNPL) in an online shopping environment. Grounded in Unified Theory of Acceptance and Use of Technology (UTAUT), the research examines the roles of perceived usefulness, perceived trust, social influence, facilitating conditions, and financial parenting in shaping this intention. Data was collected through a survey administered to 118 young adults in Malaysia and analysed using Structural Equation Modelling (SEM). The findings revealed that perceived usefulness and social influence has a significant positive impact on the intention to use the BNPL services. In contrast, facilitating conditions, perceived trust, and financial parenting do not show any significant effects. Additionally, age and gender are examined as moderating variables. The study found that only age has significantly moderate the relationship between facilitating conditions and financial parenting towards the intention to use. The study contributes to the existing literature by highlighting the key drivers of BNPL adoption among young adults and offers practical insights for financial institutions and service providers aiming to promote responsible financial behaviour.

Keywords: Buy Now, Pay Later (BNPL), Intention to Use, Malaysia, Unified Theory of Acceptance and Use of Technology (UTAUT), Young Adult.

Introduction

In modern society, digital communication technologies have become essential elements of daily life for billions of people worldwide. COVID-19, a global phenomenon that has profoundly altered consumer behaviour, as well as business and leisure activities. The pandemic acted as a catalyst, significantly accelerating the adoption of online shopping across diverse demographics, particularly among younger population (Qurniawati et al., 2023). The pandemic has caused a lasting shift in digital adoption and consumption patterns in Malaysia. At the height of the lockdowns in 2021, 75% of Malaysians browsed eCommerce platforms,

and 45% made a purchase. In 2022, these figures remained relatively consistent at 72% and 46% (Ipsos Malaysia, 2022), indicating a sustained trend towards online shopping even beyond the peak of the pandemic.

The rise in online shopping was accompanied by a corresponding increase in the utilization of the pay-later payment option. Pay-later services offer consumers the flexibility of making purchases and settling payments later, typically through a series of instalments (Alcazar & Bradford, 2021). BNPL offers consumers a departure from traditional payment methods, providing an alternative to upfront payments. BNPL, in contrast to credit cards, serves as a short-term financing solution for transactions, allowing users to make purchases and delay payment. The process is straightforward: at checkout, consumers select the BNPL option, and the total cost is divided into equal instalments. Typically, the first payment is made during the purchase, with subsequent payments scheduled at regular intervals until the entire balance is cleared (Global-IsAsian Staff, 2024).

From a consumer perspective, making purchases on credit is advantageous as it allows them to shape their identity, fulfil their lifestyle needs, and simplify their lives (Guttman-Kenney et al., 2023). With easy access to credit and flexible payment options, younger consumers are increasingly opting for pay-later services. This preference is driven by the convenience and absence of the need for collateral or guarantees, which traditional bank loans typically require. Khando et al. (2006) explained the emergence of online payment systems in recent years, categorizing them broadly into account-based and electronic currency systems. Account-based systems revolve around managing and transferring funds through user accounts held with a provider, for example traditional bank and e-wallet service provider, whereas electronic currency systems focus on the use of digital money that can be transferred directly between parties, often with a focus on decentralization and peer-to-peer interactions such as prepaid debit card and gift card.

BNPL, which have gained popularity in recent years, do indeed fall under the category of account-based systems. In BNPL arrangements, consumers typically link their purchases to a form of credit, whether it's through a dedicated BNPL provider or an arrangement with the merchant. The consumer commits to paying for the item over time, often in instalments, rather than upfront at the time of purchase. This arrangement is facilitated by linking the payment to the consumer's bank account, credit card, or other financial instrument (Relja et al., 2024)

Online Shopping Environment and BNPL in Malaysia

Malaysian Internet usage reached approximately 97.4% of the population in 2024, translating to around 33.6 million Internet users (Sue, 2024). This extensive connectivity has provided the foundation for the thriving online shopping environment. According to a survey conducted by the Statista Research Department in January 2023, approximately 55% of respondents reported making online purchases at least once a month or even more often. According to the Department of Statistics Malaysia (DoSM), e-commerce revenue increased by 5.4% year on year (Q3 in 2023), from RM274.6 million to RM289.5 billion. This increase can be given to several factors, including increased smartphone usage, enhanced online payment systems, and a growing awareness of the convenience granted by online purchasing. (DoSM, 2023). Invariably, the rise of online shopping has presented companies with new challenges,

compelling them to innovate and offer superior products, services, and convenient shopping alternatives to enhance customer satisfaction (Wen et al., 2001).

More than 50% of online shoppers in Malaysia are young due to a trend attributed of the rapid development of technology and infrastructure (Vasudevan & Arokiasamy, 2021). Youth are recognized for their early adoption of new technology, driven by their curiosity and constant pursuit of knowledge. Growing up in the digital age has exposed them to advanced technology and accustomed them to constant media consumption. Consequently, they form the largest group of consumers making online purchases. Smartphones, the internet, and active social media that is easily accessible by young consumers allow them to have the independence to make purchasing decisions on their own. Therefore, regardless of their financial situation, young customers are more inclined to buy items or conduct product searches online (Mokhtar et al., 2020). Research suggests that individuals who shop online tend to be younger than those who shop offline (Roesler, 2018).

BNPL services empower consumers by allowing them to make purchases and spread the payments across multiple instalments without the need for a formal loan application or credit assessment. This adaptable payment structure has garnered heightened popularity, particularly following the pandemic-induced changes in Malaysia's retail sector (Schomburgk & Hoffmann, 2022). The ecommerce boom in Malaysia has given opportunities for businesses operating to the market especially after acknowledging the rising need for convenient credit alternatives, notably among the underbanked and unbanked demographics, players including Atome, FavePay Later, Hoolah, Grab PayLater and SPaylater as well as banking sector such as HSBC bank, AFFIN Bank, CIMB Bank, Am Bank, RHB Bank, IOU Pay (Yahoo Finance, 2023), have taken advantage of this possibly profitable opening in the Malaysian market. Among these players, Atome stands out as one of the largest BNPL platforms in Malaysia, collaborating with over 2,000 merchants. For individuals without credit cards, Atome offers a shopping limit of RM1,500, while those with credit cards can enjoy a higher limit of RM5,000.

The number of BNPL users in Malaysia surpassed 5 million in 2022, marking an increase of approximately 1 million users from the previous year. This growth signifies the rising popularity of BNPL payment methods among Malaysian consumers (Amanda, 2024). Amanda (2024) projects that BNPL payments in Malaysia will increase by 21.2% yearly to reach US$2.4 billion by 2023. The BNPL industry in Malaysia has strong growth possibilities for the medium to long term. The use of BNPL payments is expected to increase steadily over the length of the forecast period, with a compound annual growth rate (CAGR) of 12.9% from 2023 to 2028. The gross merchandise value (GMV) of BNPL in Malaysia is expected to rise from US$2.0 billion in 2022 to US$4.3 billion by 2028.

The rapid expansion of BNPL services has brought both opportunities and challenges. While BNPL offers consumers a convenient alternative to traditional credit options, it also raises significant concerns, particularly regarding the assessment of users' eligibility and their capacity to repay loans. The lack of significant regulatory and banking intervention in the BNPL market heightens these concerns (Alvarez, 2021). In Malaysia, for instance, banks have yet to intervene significantly in BNPL services due to worries about the potential impact on consumers' credit ratings. If consumers fail to meet their monthly instalments, some BNPL providers may report these late payments to credit reporting agencies, leading to negative

entries on credit reports for up to seven years (The Star, 2022). This situation underscores the need for a deeper understanding of BNPL's influence on consumer behaviour, especially among young adults, who are primary users of these services.

Given the substantial growth of BNPL, it is crucial to document its effects on consumer purchasing habits and financial health. Therefore, this study aims to investigate young adults' attitudes toward BNPL services in Malaysia and their intention to use these services. By studying and understanding these factors, the findings from this study seek to provide insights to three different parties, namely the consumer, the parent and education institution as well as the BNPL service provider in order to develop a more effective regulatory frameworks and support sustainable growth in the BNPL sector.

This paper will continue with the literature review of the study, followed by methodology. Results and discussion from the analysis are presented thereafter. Finally, the conclusion of the layout at the end with the limitation and future studies being discussed.

Literature Review

The acceptance and utilization of IT systems have been extensively researched, resulting in the emergence of various theories at both individual and organizational levels, often focused on specific countries or regions (Im et al., 2011). While these models share the common dependent variable of use or intention to use, they differ in their antecedents for understanding technology acceptance. A comprehensive examination of eight well-known models is provided by Venkatesh et al. (2003), who also develop a Unified Theory of Acceptance and Use of Technology (UTAUT) that can account for as much as 70% of the variance in intention.

Perceived Usefulness

Perceived usefulness (PU) refers to an individual's conviction that utilizing the system will enhance job performance (Lwoga & Lwoga, 2017). Essentially, it describes a user's cognitive anticipation regarding the system's effectiveness. Therefore, consumers perceive that utilizing such a system can satisfy their financial and lifestyle needs, while also enhancing efficiency in conducting transactions. Adwan et al. (2020) also define perceived usefulness as the consumers' perceptions of how online retail firms can enhance value and effectiveness when engaging in online shopping. The perceived benefits of online shopping are often captured as perceived usefulness (Badeggi & Muda, 2021). This benefit includes making purchases and stagger payments across instalments as mentioned earlier. As such, the following hypothesis is proposed:

Hypothesis 1 (H1). Perceived usefulness has a significantly positive effect on the intention to use BNPL among young adults.

Perceived Trust

Online trust has emerged as a critical construct in the context of online shopping. It is generally defined as users' reliance on a specific firm's business, in this study refer to BNPL service providers, activities conducted through electronic mediums, such as websites or applications (Shankar et al., 2002). Trust in technology significantly influences people's attitudes and behaviours towards these systems. Chuang and Kao (2016) approached the measurement of attitudes towards using Fintech differently and concluded that trust, safety,

and security remain major factors influencing user attitudes. Hence, perceived trust (PT) refers to an individual starting to trust a system or a service provider through repeated use of the application to make purchases. Hoque and Alam (2018) asserted that knowledge contributes the degree to which one trusts the information source indicating that leveraging consumers' existing knowledge to build trust can enhance their purchase intention. Kim et al. (2017) further emphasized the crucial role of perceived trust in predicting purchase intention by reducing perceived risk during transactions. As such, the following hypothesis is proposed:
Hypothesis 2 (H2). Perceived trust has a significantly positive effect on the intention to use BNPL among young adults.

Social Influence

According to Venkatesh et al. (2003), social influence (SI) is the result of external elements that an individual perceives as having a significant impact on the thoughts of others on whether they should utilize the new system. One way to understand social influence as a direct determinant of behavioural intention is as a subjective norm. While Chaouali et al. (2016) found that social influence influenced people's views toward using new, innovative products through technology services, Martins et al. (2014) found that social influence influenced online users' intention to use Internet services. Therefore, the effect of social factors and subjective norms on behaviour intention to utilize BNPL in UTAUT can be used to derive social influence. As such, the following hypothesis is proposed:
Hypothesis 3 (H3). Social influence has a significantly positive effect on the intention to use BNPL among young adults.

Facilitating Conditions

Facilitating conditions (FC) represent the impact of organizational and technical infrastructure that support the utilization of Internet banking, including the user's knowledge, skills, and resources (Venkatesh et al., 2003). Hossain et al. (2017) noted that facilitating conditions significantly positive impact on consumers' intention to purchase a product. Once consumers experience the convenience of using the facilities provided by service providers that simplify payments and transactions, they are likely to continue using the services. Furthermore, Peñarroja et al. (2019) confirmed that facilitating conditions positively impacted the knowledge-sharing behaviour of using technology during this digital era. These findings suggest that consumers are more likely to participate in virtual communities when such facilitating conditions are present. As such, this study proposes the following hypothesis:
Hypothesis 4 (H4). Facilitating conditions have a significantly positive effect on the intention to use BNPL among young adults.

Financial Parenting

Financial parenting (FP) is an organic process integrated into daily family life through conversations, interactions, and teachings (Rudi et al., 2020). Serido & Deenanath (2016) stated that parents, acting as custodians of external financial influences, serve as exemplars for their children, shaping their fiscal habits and behaviours. The research indicates that children raised in households fostering responsible financial practices are more likely to develop good financial behaviours themselves. Therefore, instilling positive fiscal values and exemplifying prudent financial behaviours at an early age on holds importance in preparing

children for enduring financial security and success. Smith and Barboza (2014) found that college students who receive financial education from their parents tend to demonstrate improved financial habits and maintain lower credit card balances. While previous developmental studies have examined the relationship between parenting factors and students' financial behaviour, the BNPL as a newly developed payment method has not been fully explored. As such, the following hypothesis is proposed:
Hypothesis 5 (H5): Financial parenting has relationship effect on the intention to use BNPL among young adults

Age

According to Phillips and Sternthal (1977), age affects the way information is processed. Wiechen et al. (2024) discovered that the ways in which younger adults and elderly individuals receive information vary. Age differences cause a complex range of changes in people's knowledge sources, learning capacities, and social influence susceptibilities. Consequently, using this knowledge of age differences for marketing businesses and fulfilling customer demands is advised. Hence, the following hypothesis is proposed:
Hypothesis 6 (H6). Age moderates the relationships of perceived usefulness, social influence, facilitating conditions, and perceived trust with the intention to use BNPL among young adults.

Gender

Gender is a key factor in product evaluation, significantly influencing the decision-making process. It can impact the preference for and use of certain platforms, apps, and technologies (Belanche et al., 2020). BNPL customers consistently shows that young women constitute the largest customer base, with the average age of BNPL users being lower than that of users of other financial products including credit cards, personal loans, and payday loans (Abed & Alkadi, 2024). Therefore, understanding the differences in terms of gender is equally important to provide suitable products that match the needs of consumers. Hence, the following hypothesis is proposed:
Hypothesis 7 (H7). Gender moderates the relationships of perceived usefulness, social influence, facilitating conditions, and perceived trust with the intention to use BNPL among young adults.

Conceptual Framework of the Study

Based on the literature reviewed, a conceptual framework is developed to provide a basis for research design and data analysis. The diagram explains the independent variables: Perceived usefulness (PU), Perceived trust (PT), Social influence (SI), Facilitating conditions (FC) Financial parenting (FP), and moderator variables such as age and gender. These variables are analysed to determine whether they influence the intention to use BNBL as shown in Figure 1.

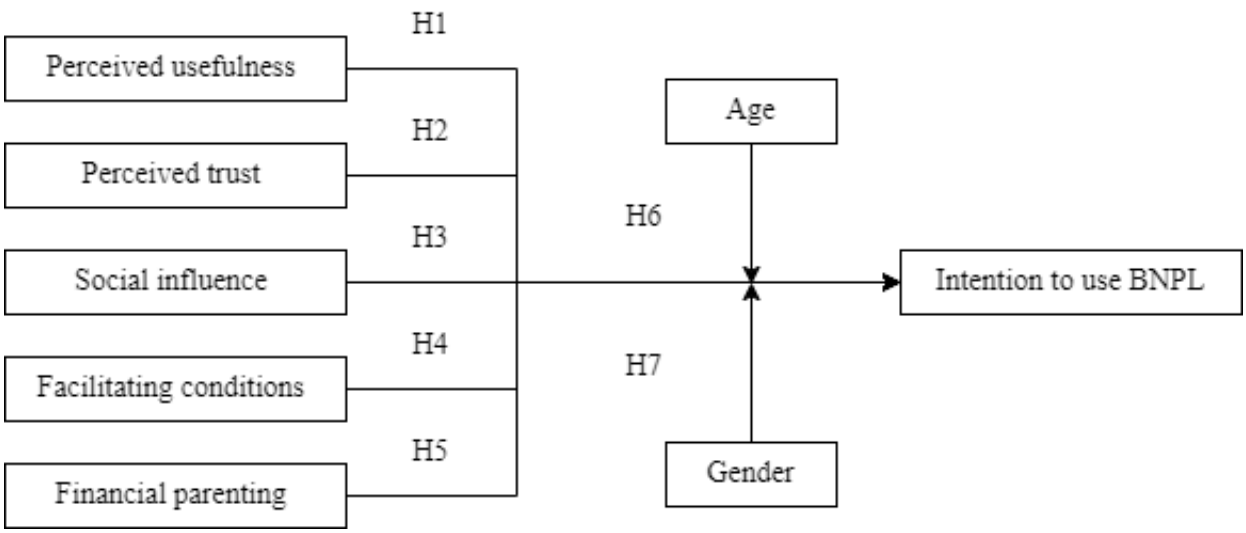

Figure 1 Conceptual Framework

Methodology

In 2022, Malaysia had approximately 5 million BNPL users, with about 44% of them, or around 2.2 million, aged between 18 and 30 years old (Priyatharisiny, 2023). This study includes all Malaysian citizens in the sampling criteria, encompassing both current and former BNPL users, without restrictions based on gender, race, religion, or ethnicity. Non-users who are individuals that never used BNPL services are also included since they may become future users. By examining the factors influencing consumers' intentions toward BNPL services, the study aims to identify why non-users do not use BNPL services and to identify the intention of why current BNPL users consistently manage their finances by using BNPL for transactions. This comprehensive approach seeks to provide a better understanding of the BNPL industry, including the motivations and deterrents affecting both current and potential users.

Determining the minimum required sample size is essential for gathering data relevant to structural equation modelling (SEM). In Confirmatory Factor Analysis (CFA), this size is determined based on factors rather than variables. Typically, around 20 samples per factor, known as latent variable, are needed for structural equations to be employed (Jackson, 2003). Given this study's utilization of 5 latent variables, a sample size of 100 is required (Stroborn et al., 2004).

Data for this research comes from a Google Form survey disseminated in May 2024 to young adults aged between 18 to 30 in Malaysia who are aware of the existence of BNPL services. As a result, 118 questionnaire responses were eligible for statistical analysis. Data collection was executed using a Google Form, employing the method of convenience sampling. The questionnaire comprised a total of 32 questions, splitting into 7 sections which are respondents' demographic profile, influencing factors (independent variable) on customers' intention to use, and customers' intention (dependent variable) to use BNPL in online shopping environment. Single-statement items were applied to analyse respondent demographic data including age, gender, and monthly income. The independent variables include PU, PT, SI, FC and FP. Participants answered the survey questionnaires voluntarily and with their consent.

The scale items including PU, PT, SI, FC were derived from the paper by Yang et al. (2021). Meanwhile, another scale item of FP was adapted from Serido et al. (2010). The details of scale items are shown in Table 1.

Table 1
Scale Items

Variable	Denoted As	Question	Source
Perceived Usefulness (PU)	PU1	Using BNPL makes it easier for me to conduct my daily payment	Yang et al. (2021).
	PU2	Using BNPL increases my productivity	
	PU3	Using BNPL enables me to accomplish tasks e.g., payments more quickly	
	PU3	Overall, I believe BNPL is more useful than traditional ways of conduct transactions	
Perceived Trust (PT)	PT1	I trust payments made through BNPL platform will be processed securely	Yang et al. (2021).
	PT2	I believe my personal information on a BNPL platform will be kept confidential	
	PT3	I believe BNPL platform keeps customers' best interests in mind	
	PT4	I believe BNPL platform follow consumer laws	
Social Influence (SI)	SI1	People who influence my behaviour think that I should use BNPL	Yang et al. (2021).
	SI2	People who are important to me think that I should use BNPL	
	SI3	BNPL are widely used by people in my community	
	SI4	My family members and friends use BNPL	
Facilitating Condition (FC)	FC1	I am given the necessary support and assistance to use BNPL	Yang et al. (2021).
	FC2	I have the financial and technological resources required to use BNPL	
	FC3	I have access to the software and hardware required to use BNPL	
	FC4	The BNPL services I use are well integrated and provided in a stable service infrastructure	
Financial Parenting (FP)	FP1	I track my monthly expense	Serido et al. (2010).
	FP2	I spend within the budget	
	FP3	I save money each month for the future	
	FP4	I invest for long-term financial goals regularly	
	FP5	My parents are aware of my spending patterns	
	FP6	I discuss with my parents about money matters	
Intention to Use BNPL (ITU)	ITU1	Given that BNPL as a payment option, I will use it to make payments	Yang et al. (2021).
	ITU2	I intend to use BNPL if the cost and times is reasonable for me	
	ITU3	I intend to use BNPL in the future	
	ITU4	I intend to continue using BNPL more frequently in the future	

Using SmartPLS 4, the survey questionnaire data was examined. Complex cause-effect relationship models with latent variables were estimated using partial least squares structural equation modelling (PLS-SEM) (Cepeda et al., 2019). The PLS-SEM technique using SmartPLS was suitable for investigating the causal-effect correlations suggested in the study model, with a sample size more than 100 (n = 118). Additionally, SPSS29 was utilized to strengthen the SEM reliability result.

Results and Discussion

The study's respondents' demographic profiles are shown in Table 2. Most respondents were female (58%), compared to male (42%). The largest age group among respondents was 22–25 years old (52%), followed by 26–30 years old (26%), and 18–21 years old (22%). In terms of income, 36% of respondents reported earning RM 1000 or below, 24% fell within the RM 1001 to 3000 range, 28% earned RM 3001 to 5000, and 13% had an income above RM 5001.

Validity and Reliability

The first step in SEM is to assess the measurement model such as evaluating construct reliability, indicator reliability, convergent validity, and discriminant validity of the outlined constructs. Construct reliability can be determined using composite reliability (CR) and Cronbach's alpha (CA). According to Hair et al. (2014), the criterion for adequate reliability is that the CR value should exceed 0.70, which aligns with the CR values in this study, confirming adequate construct reliability. Meantime CA is used to access the indicator reliability, where the CA values must be higher than 0.60. The results showed that the CA values for all factors in this study were acceptable.

Furthermore, a latent variable can explain over 50 percent of the variation of its indicators on average if it has an average variance extracted (AVE) value of at least 0.5 (Fornell, C. et al., 1981). The convergent validity of the constructs for this study was confirmed by the results, which showed that each construct had a significant AVE. In the meantime, the degree of collinearity is evaluated by examining the variance inflation factor (VIF). A possible collinearity problem is indicated if the VIF is 5 or above (Hair et al., 2011). There is no collinearity issue in this investigation, as indicated by all the VIF values being less than 5. The CA, CR, AVE, and VIF values are shown in Table 3.

Table 2
Demographic Characteristics

Content	N	%
Gender		
Female	69	58
Male	49	42
Total	**118**	**100**
Age		
18 to 21	26	22
22 to 25	61	52
26 to 30	31	26
Total	**118**	**100**
Income Group		
1000 and below	42	36
1001 to 3000	28	24
3001 to 5000	33	28
5001 and above	15	13
Total	**118**	**100**

Table 3
Reliability and validity

Variables	No. Items	Mean	Standard Deviation	CA (>0.6)	CR (>0.7)	AVE (>0.5)	VIF (<5)
PU	4	3.326	1.108	0.882	0.918	0.738	2.946
PT	4	3.862	0.892	0.832	0.888	0.665	1.945
SI	4	2.983	1.133	0.844	0.896	0.683	2.168
FC	4	3.748	0.982	0.874	0.912	0.723	1.932
FP	6	3.729	1.152	0.803	0.856	0.500	1.578
ITU	4	3.574	1.022	0.849	0.898	0.688	

The Fornell–Larcker criterion, cross-loading, and the Heterotrait–Monotrait ratio (HTMT) were the three techniques used to test the measurement model's discriminant validity (Hair et al., 2014). The Fornell-Larcker criterion ensures that the square root of the AVE for each construct is greater than its correlation with any other construct. The Cross-Loading Method indicates discriminant validity when each indicator's loading on its own construct is higher than on any other construct. HTMT evaluates discriminant validity using multitrait-multimethod matrices, with a recommended threshold of 0.85 (Kline et al., 2012) or 0.90 (Gold et al., 2001). Values above these thresholds suggest a lack of discriminant validity.

The results of the Fornell–Larcker criterion are detailed in Table 4 and HTMT are detailed in Table 5 confirmed the discriminant validity of the constructs, as all indicator loadings were higher on their associated constructs compared to other constructs.

Additionally, the Fornell–Larcker criterion demonstrated strong links among the constructs, further validating discriminant validity.

Table 4
Discriminant Validity using Fornell-Larcker Criterion

	FC	FP	ITU	PT	PU	SI
FC	0.850					
FP	0.380	0.707				
ITU	0.519	0.432	0.830			
PT	0.564	0.364	0.496	0.815		
PU	0.544	0.446	0.713	0.553	0.859	
SI	0.400	0.442	0.684	0.416	0.675	0.826

Table 5
Discriminant Validity using Heterotrait-Monotrait Ratio (HTMT)

	FC	FP	ITU	PT	PU	SI
FC						
FP	0.438					
ITU	0.579	0.493				
PT	0.661	0.430	0.571			
PU	0.608	0.495	0.806	0.653		
SI	0.443	0.501	0.800	0.507	0.779	

The path coefficients in Table 6 indicate that perceived usefulness and social influence have a statistically significant relationship with the intention to use BNPL ($P < 0.05$), facilitating condition, perceived trust, and financial parenting do not significantly affect the intention to use BNPL ($P > 0.05$). The original sample represents the direct effect between latent variables from the original dataset, while the sample mean is the average effect size from bootstrapped samples. The original sample value and the sample mean in this study are close, indicating that the path coefficient is stable and reliable.

R^2 is frequently used to indicate how well the independent variables together reflect the variance in the dependent variable when assessing overall model fit. The percentage of the variance that the model explains is shown by values between 0 and 1. With an R^2 of 0.608 in this investigation, the model accounts for 60.8% of the variance in the dependent variable. On the other side, F^2 is used to understand the impact of adding or removing specific predictors from the model, giving insight into the importance of each predictor. In this study, the F^2 score between 0.004 to 0.160, showing that all independent variables in this study had a small effect size on the consumers' intention to use BNPL with only SI having the largest effect contributing to the intention to use BNPL.

Table 6
Path Coefficients

	Path coefficients	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values	R^2	F^2	Decision
PU → ITU	0.346	0.365	0.359	0.204	1.785	0.001		0.128	Accept
PT → ITU	0.065	0.042	0.065	0.133	0.316	0.432	0.608	0.006	Reject
SI → ITU	0.347	0.421	0.433	0.170	2.476	0.000		0.160	Accept
FC → ITU	0.136	0.137	0.112	0.118	1.154	0.087		0.028	Reject
FP → ITU	0.049	0.019	0.025	0.127	0.150	0.565		0.004	Reject

To proceed with the structural model, the Higher-Order Component Model (Reflective-Formative) in Figure 2 was utilised to evaluate the structural model and path coefficient. The moderation effect of age and gender was used in this study to assess the relationships of perceived usefulness, social influence, facilitating condition, perceived trust, and financial parenting with the intention to use BNPL. Based on the results shown in Table 7, the R^2 has a value of 0.679, indicating that this model accounts for 67.9% of the variance in the dependent variable. The age factor, however, was unable to moderate the relationships between the intention to use BNPL and perceived usefulness, perceived trust, and social influence. However, a positive moderating effect (O = 0.174) was observed on the relationship between the facilitating conditions (p = 0.006) with the intention to use BNPL implying that as age increases, the positive impact of facilitating conditions on the intention to use BNPL becomes stronger. Similarly, age also moderates the relationship between financial parenting (FP) and the intention to use BNPL services. This is evidenced by a negative moderation effect (O = -0.199, p=0.000), suggesting that as age increases, the negative impact of financial parenting on the intention to use BNPL becomes more pronounced.

Age in this study significantly affects how facilitating conditions and financial parenting impact the intention to use BNPL services. Without accounting for this moderating effect, the relationships between these variables and the intention to use BNPL do not show significant results. These changes can be attributed to the different ways age interacts with these variables. As people age, their reliance on facilitating conditions and financial upbringing becomes more pronounced, thus making these factors significant. Conversely, the influence of perceived usefulness and social influence may diminish as individuals grow older, likely because older individuals might have different priorities or more established financial habits compared to younger individuals. On the other hand, as table 8 shows, gender had no moderating effect on the relationships between any independent variable, such as perceived usefulness, social influence, facilitating condition, perceived trust, and financial parenting with the intention of using BNPL, with an R^2 value of 0.626.

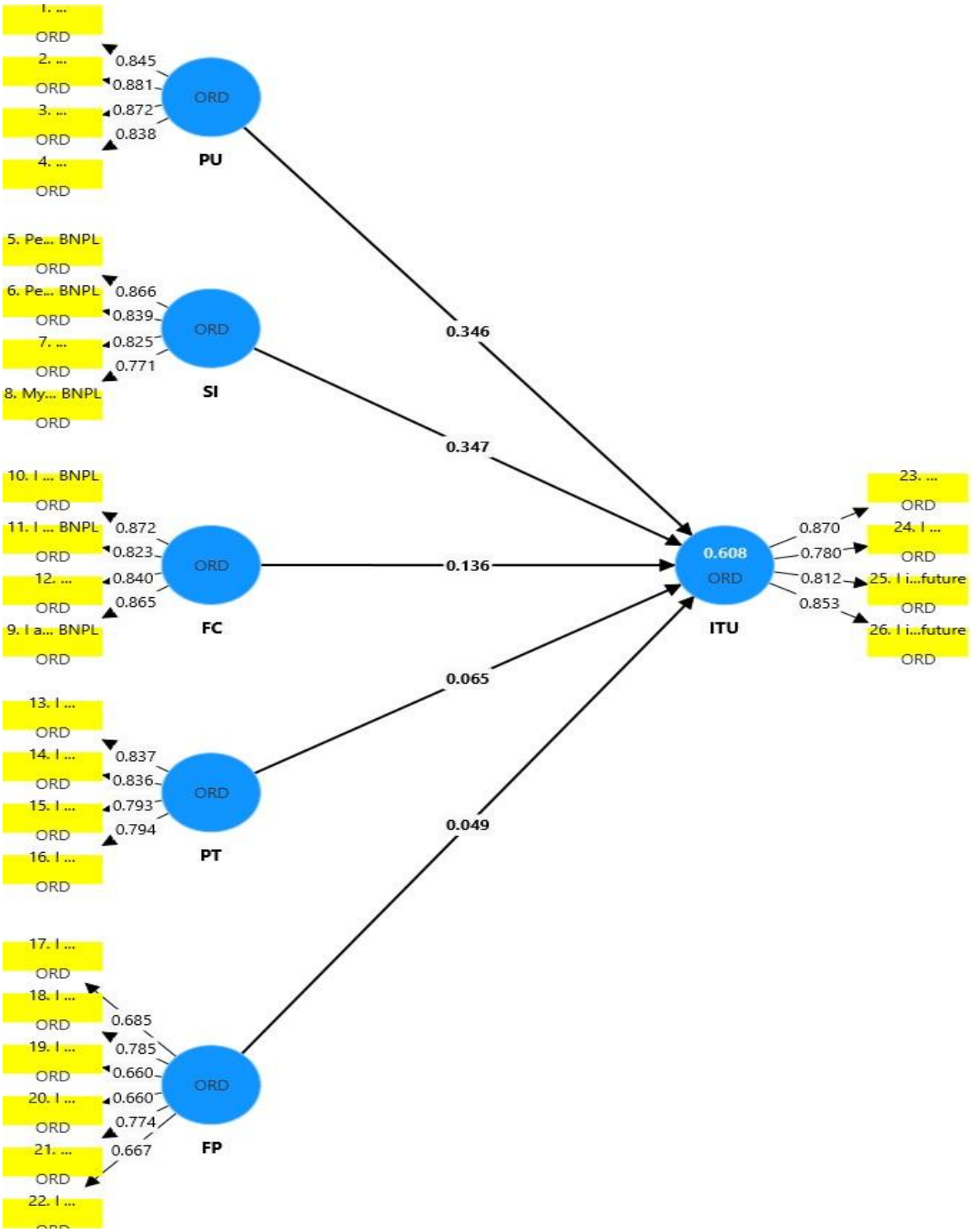

Figure 2 Path coefficients between main constructs in the structural Model

Table 7
The Moderating Effect of Age

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics	P values	Decision
PU → ITU	-0.050	-0.031	0.099	0.509	0.611	No moderation
PT → ITU	-0.048	-0.064	0.088	0.542	0.588	No moderation
SI → ITU	0.049	0.040	0.090	0.548	0.584	No moderation
FC → ITU	0.158	0.168	0.074	2.128	0.033	Moderation
FP → ITU	-0.247	-0.249	0.080	3.090	0.002	Moderation

Table 8
The Moderating Effect of Gender

PU → ITU	0.034	0.037	0.136	0.253	0.800	No moderation
PT → ITU	0.046	0.042	0.089	0.516	0.606	No moderation
SI → ITU	0.012	-0.002	0.130	0.095	0.924	No moderation
FC → ITU	-0.037	-0.041	0.082	0.446	0.655	No moderation
FP → ITU	0.057	0.082	0.089	0.645	0.519	No moderation

Conclusion

To better understand the intention to use BNPL, this study explored various factors influencing this intention, incorporating age and gender as moderating factors. This study verified the significantly positive effect of PU on the intention to use BNPL. Additionally, individuals are more likely to embrace new information technology solutions if they believe these technologies will enhance their productivity and efficiency (Azmi et al., 2022). This demonstrates the positive relationship between PU and the intention to use BNPL services. PT shows insignificant effect on intention to use BNPL. This result shows a different point of view compared to Wong and Mo (2019) studies who stated that consumers generally increase their intention to use it due to high levels of trust, especially when consumers perceive a service as honest and reliable. Consumers' trust significantly impacts their intention to use mobile services or payment services. Confidence in technology enhances assessments and attitudes towards its use. When technology meets expectations by being reliable and safe, this trust positively impacts the intention to adopt and utilize it. SI had a significant positive effect on consumers' intention to use BNPL. This finding is consistent with Chaouali et al. (2016) who stated that SI from close community such as family and friends significantly affects individuals' attitudes toward using innovative products through technology services. Similarly, Koenig-Lewis et al. (2015) also showed a positive correlation between SI and intention to use in financial services in Malaysia. These studies highlight SI as a dominant factor in the intention to use BNPL services as a payment method. The perceived value of

utilizing such payment methods often rises when a critical mass within a social group adopts BNPL services, thereby encouraging their peers and family members to follow suit.

However, FC did not significantly affect intentions to use BNPL in this study. This finding diverges from the results of Peñarroja et al. (2019), who indicated that FC can positively influence a consumer's intention to use an ewallet, a financial payment method similar to BNPL on an online platform. The result also conflict with Hossain et al. (2017) studies which customers are more likely to remain with the services after they discover the convenience it has been to use the facilities offered by service providers to make payments and transactions easier. However, consumers' intentions to use BNPL are not significantly influenced by FP. This result is in contrast to research conducted by Smith and Barboza (2014) at state universities, which found that students who learn about monetary issues from their parents generally adopt better financial habits and have much smaller credit card debt. Parenting quality can influence the intention to use short-term debt lesser, including BNPL (Gerrans et al., 2022; Rudi et al., 2020). The result of the study shows that by having open and productive discussions with their parents regarding budgeting, financial stability, and spending patterns, young adults are less likely to regularly use BNPL services. The way that consumers perceive the surroundings can have an impact on their intention to use BNPL in their behaviour. This study shows a slightly different result compared to the research output by Hwang & Kim (2019) which age and gender partially moderate the relationship between different variables and the intention to use BNPL. Both studies agree that age influences consumer behaviour and their intention to use BNPL. However, this study diverges by showing that gender does not have a moderating effect on consumers' intention towards using BNPL, contrasting with the findings which suggested partial moderation by both age and gender.

This study has several limitations despite its contributions. First off, the cross-sectional research design used to derive the findings and implications only offers a moment in time. To guarantee the validity and applicability of the findings across time, as well as to clarify the consequences of temporal changes, a longitudinal study would be necessary. Secondly, the study focuses heavily on recent consumer behaviour in relation to BNPL, which may not fully capture larger trends and patterns that could emerge in the future. Consumer behaviour is dynamic and can be influenced by various factors such as economic conditions, social norms, and technological advancements. These factors may affect how consumers adopt BNPL, as well as their preferences and attitudes toward it. Therefore, future research should consider the time dimension to better understand these evolving patterns Thirdly, the use of simple random sampling to obtain respondents might yield different results compared to other sampling methods that could affect the findings. Moreover, the study's focus on BNPL providers, which is a relatively new market phenomenon, is challenging to compare its results with other, more established areas of research, making it difficult to draw broader conclusions.

Building on this foundation, future research should employ a longitudinal research design to track the changes in consumer behaviour and attitudes towards BNPL over an extended period. This approach will help in understanding the long-term effects of BNPL adoption, how consumer preferences change according to the impact of various influencing factors, such as economic conditions and technological advancements. Future research could use the model in various cultural and geographical contexts or incorporate new

characteristics into the study's model to obtain a more thorough knowledge of customer behaviour toward BNPL. This involves investigating the ways in which BNPL adoption and usage are influenced by society norms, economic situations, and technology improvements. To forecast future trends and offer a more comprehensive understanding of the possible impact of BNPL, researchers must incorporate these more significant variables. Lastly, future research should explore different sampling methods beyond simple random sampling to obtain a more diverse and representative sample of respondents. This includes stratified sampling, cluster sampling, or multi-stage sampling techniques. Additionally, conducting comparative studies with more established financial services can help in drawing broader conclusions about BNPL's place in the market and its long-term viability. By taking this method, the results will be more broadly applicable and offer a more comprehensive understanding of the factors that influence the intention to use BNPL.

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