

The Behavioral Limits of Financial Literacy : Self-Control and Risk Perception as Pathways to Buy Now Pay Later Adoption

Suhaib Ahmed Soomro

Near East University, Turkey

Silvi Asna Prestianawati

Universitas Brawijaya, Indonesia

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Abstract

Purpose - This study examines whether financial self-control and perceived risk mediate the relationship between financial literacy and Buy Now Pay Later (BNPL) adoption among Generation Z consumers.

Design/methodology/approach - Data were collected from 364 Generation Z consumers at four Indonesian universities through a hybrid online–offline survey using quota sampling. The data were analyzed using partial least squares structural equation modeling (PLS-SEM).

Findings - The findings show that financial literacy has no direct effect on BNPL adoption. However, it significantly influences financial self-control and perceived risk, which mediate the relationship between financial literacy and BNPL adoption. These findings indicate that financial knowledge alone does not determine BNPL adoption; behavioral self-control and risk perception are important pathways.

Practical implications - The findings suggest that financial education should not focus only on financial knowledge but also develop consumers' self-control and ability to assess credit risks. BNPL providers and policymakers can use these insights to support responsible borrowing and strengthen consumer protection.

Originality/value - This study shows how financial literacy influences BNPL adoption through behavioral mechanisms rather than through a direct relationship. It highlights the importance of self-control and risk perception in understanding BNPL adoption among Generation Z consumers.

Keywords: Buy Now Pay Later; financial literacy; financial self-control; perceived risk; Generation Z



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Author correspondence email : silvi.febub@ub.ac.id

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INTRODUCTION

The emergence of Buy-Now-Pay-Later (BNPL) options has transformed the financial sector which offers a flexible alternative to traditional credit which appeals particularly to young and digitally savvy consumers (Guttman-Kenney et al., 2023; Ji et al., 2023; A. Kumar et al., 2024; S. Kumar & Nayak, 2024; Vijay Amrit Raj et al., 2024a, 2024b; Relja et al., 2024). BNPL allows customers to acquire products or services instantly and defer payments over time like either interest-free or with manageable instalment plans which foster a sense of convenience and accessibility (Gerrans et al., 2021; Schomburgk & Hoffmann, 2023). BNPL has rapidly gained traction globally as popularized by major online retailers and platforms. BNPL adoption rose from 31% in 2021 to 46% in 2023 In the United States. This reflects a shift in consumer preferences toward instant gratification in spending for especially among young adults (S. Kumar & Nayak, 2024) . Although BNPL now represents 5% of e-commerce transactions globally, it is expected to reach 6% by 2026. This widespread use of unsecured and easily accessible credit has raised questions about its long-term effects on consumer financial health (FIS, 2023). BNPL services are also considered to expand financial access and support financial inclusion, particularly for consumers with limited access to traditional credit products (Guttman-Kenney et al., 2023).

The convenience of BNPL in today's digital era has not come without controversy with emerging concerns that BNPL encourages impulsive spending and may lead to problematic debt patterns for particularly among younger consumers (Dhar et al., 2025; Gallo Cordoba et al., 2024; Relja et al., 2024; Schomburgk & Hoffmann, 2023). Unlike traditional credit cards which typically require thorough credit assessments, BNPL services offer instant approval and low documentation requirements by passing established financial safeguards (Akhtar et al., 2024; A. Kumar et al., 2024; S. Kumar & Nayak, 2024; Schomburgk & Hoffmann, 2023). This lack of scrutiny has made BNPL appealing to financially vulnerable groups and heightened the risk of unmanageable debt. Studies have shown that consumer spending often escalates when credit is readily available and diminishes the pain of paying and potentially drives individuals toward risky indebtedness behaviours (Aalders, 2023; Abrantes-Braga & Veludo-de-Oliveira, 2020; Guttman-Kenney et al., 2023). Regulatory concerns are growing as studies reveal that BNPL users often resort to credit cards or other debt instruments to cover their BNPL payments and underscore the potential for debt traps (Akhtar et al., 2024; Anwar, 2024; Chen et al., 2024; Feng et al., 2023; Filotto et al., 2024; Guttman-Kenney et al., 2023; Ji et al., 2023; Johnson et al., 2021; Juita et al., 2024; A. Kumar et al., 2024). These findings emphasize the need to understand the factors which drive BNPL adoption and their potential repercussions. These also give the ease with which consumers can incur debt through digital channels.

Generation Z predominantly use digital platforms and favours convenience-oriented payment methods. BNPL adoption poses unique challenges with financial literacy and



financial self-control emerging as crucial but often overlooked factors. While this cohort is generally tech-savvy, research indicates that many young adults lack the financial literacy required to navigate complex credit systems effectively which may limit their understanding of BNPL's risks (Gallo Cordoba et al., 2024; S. Kumar & Nayak, 2024; Namahoot & Jantasri, 2023; Vijay Amrit Raj et al., 2024b). Financial self-control further complicates BNPL use. Studies suggest that the deferred payment structure may erode self-regulation (Namahoot & Jantasri, 2023). Consumers are more likely to spend on wants rather than needs without immediate financial consequences (Boto-García et al., 2022; Fred van Raaij et al., 2023; Gathergood, 2012; Peetz & Davydenko, 2021; Rey-Ares et al., 2021; Sekścińska et al., 2021a; Strömbäck et al., 2017, 2020). Perceived risk also plays a significant role in Gen Z's engagement with BNPL services. Low awareness of potential penalties and fees can diminish the perceived severity of using BNPL (Vijay Amrit Raj et al., 2024b). Consequently, young consumers often overlook its long-term financial impact although BNPL might serve as a helpful budgeting tool. Furthermore, the relationship between financial knowledge, self-discipline and the perception of risk in the adoption of BNPL by Gen Z has not been thoroughly investigated.

To address this gap, the aim of this research is to explore how financial literacy affects the use of BNPL among Generation Z and to place special emphasis on the intermediary roles of financial self-control and perceived risk. The study also seeks to offer a thorough understanding of the psychological and behavioral elements that influence BNPL adoption in young adults by examining the connections between these factors. Furthermore, this research will contribute to the growing discourse on digital finance and consumer protection, highlighting how financial education and self-control can mitigate the risks associated with BNPL. This study also seeks to provide important perspectives on the factors influencing BNPL adoption by ultimately informing policies and financial literacy programs that could enhance financial responsibility exhibited by Generation Z consumers

LITERATURE REVIEW

The Buy Now Pay Later (BNPL) Adoption

BNPL option has recently become a significant substitute for conventional credit methods which are appealing particularly to young consumers like Generation Z due to its accessible, interest-free and instalment-based structure (Feng et al., 2023; Gallo Cordoba et al., 2024; A. Kumar et al., 2024). BNPL allows users to obtain products and services immediately while deferring payments over time and distinguishing itself from credit cards by typically not charging interest, though late or missed payments can incur fees (Ji et al., 2023; Vijay Amrit Raj et al., 2024b; Schomburgk & Hoffmann, 2023). This ease of access makes BNPL a particularly attractive option for individuals with limited credit histories or those who prefer simpler financial solutions (Chen et al., 2024; Relja et al., 2024). BNPL's streamlined checkout option is available both online



and in-store and meets the convenience-driven demands of Gen Z consumers who often prioritise immediacy and ease in financial transactions (Aalders, 2023; Gerrans et al., 2021; Juita et al., 2024). Unlike credit cards, BNPL applications involve minimal credit vetting and creating a straightforward process with almost instant approval while eligibility requirements remain low and often bypass income or credit history criteria and enhance its accessibility (Filotto et al., 2024; S. Kumar & Nayak, 2024; Schomburgk & Hoffmann, 2023). However, the rapid growth of BNPL services has occurred amid limited regulatory oversight and raised concerns regarding potential consumer risks particularly among inexperienced or impulsive users who may be vulnerable to accumulating debt without fully understanding the associated financial consequences (Juita et al., 2024; Relja et al., 2024).

BNPL aligns with a growing preference for financial products that emphasize simplicity, immediate access and a seamless digital experience by contrasting with traditional credit models that may feel outdated or cumbersome (Akhtar et al., 2024; Guttman-Kenney et al., 2023; Schomburgk & Hoffmann, 2023). While marketed as interest-free, BNPL is frequently presented without highlighting the additional fees or the impact of missed payments which can mislead young consumers who may lack experience managing debt (A. Kumar et al., 2024). This lack of transparency which coupled with BNPL's appeal to impulsive buying behaviours positions it as a potentially high-risk option for Gen Z whose spending patterns and are often driven by immediate gratification rather than long-term financial planning (S. Kumar & Nayak, 2024). The appeal of BNPL to this generation can be understood through frameworks such as compensatory consumption theory which suggests that consumers engage in spending to fulfil emotional needs or alleviate dissatisfaction (Vijay Amrit Raj et al., 2024a). BNPL's structure also aligns with The Theory of Planned Behavior (TPB) which emphasizes the importance of simplicity in usage and perceived affordability in heightening the usage intention especially among young consumers who prioritize convenience (Vijay Amrit Raj et al., 2024b). While BNPL providers advocate that their services support responsible spending by offering budgetary control but evidence indicates that Gen Z's engagement with BNPL may reflect a normalization of debt culture where credit becomes an everyday tool for managing even small expenses (Aalders, 2023; Gerrans et al., 2021; Guttman-Kenney et al., 2023; Pellandini-Simányi & Vargha, 2020). In light of these insights, BNPL's role in shaping Gen Z's financial practices highlights both its appeal and its risks and underscores the need for further scrutiny of this evolving credit mechanism and its implications for young consumers' financial health.

Financial Literacy and BNPL Adoption

Financial literacy refers to the understanding and ability to apply various financial concepts and skills and attitudes essential for effective financial decision-making (Filotto et al., 2024; Lopez et al., 2024; Zhang & Fan, 2024). Financial literacy is essential



for handling individual financial matters effectively and fostering economic empowerment (Hidayat-ur-Rehman, 2024; Jhonson, 2023). This capability encompasses not only an understanding of financial products but also the analytical skills necessary to assess financial situations, makes sound judgments and implement strategies that support financial stability (Kusumawardhani, 2023; Masrizal et al., 2024; Tang et al., 2022). People who possess greater financial knowledge are more likely to exhibit responsible financial habits such as creating and sticking to a budget, saving and responsible borrowing which are essential for resilience and sustainable financial well-being (Abrantes-Braga & Veludo-de-Oliveira, 2020; Bunyamin & Wahab, 2022; Fred van Raaij et al., 2023; Hidayat-ur-Rehman, 2024; Lopez et al., 2024; Shi et al., 2024). In the context of contemporary financial products like Buy Now Pay Later (BNPL) services, financial literacy becomes particularly significant (Filotto et al., 2024). BNPL schemes offer consumers the convenience of immediate purchases with deferred payments, yet they also involve potential hazards related to charges, interest costs and the risk of accumulating debt (Anisa et al., 2020; Dewi et al., 2020; Gathergood, 2012; Powell et al., 2023). People who are financially knowledgeable tend to assess these expenses with greater scrutiny and understand the implications of BNPL and approach such services with caution to avoid overextension (Alshebami & Aldhyani, 2022; Didenko et al., 2023; Li et al., 2020; Okello Candiya Bongomin et al., 2024). Conversely, individuals with lower financial literacy may lack awareness of these factors and increase their vulnerability to impulse purchases and subsequent financial distress (Amagir et al., 2020; Anisa et al., 2020; Dewi et al., 2020; Noor et al., 2020; Tahir et al., 2021). Therefore, financial literacy not only informs responsible BNPL use but also motivates people to reflect on the lasting consequences of delayed payment plans and emphasize the need for financial literacy initiatives that teach budgeting, credit evaluation and debt control. Such initiatives empower consumers to make informed decisions and contribute to both individual financial security and broader economic stability. Based on this reasoning, We Hypothesize:

H1 : Financial Literacy Influences BNPL Adoption

Financial Literacy and Financial Self Control

Financial self-control refers to the capacity to avoid short-term desires in order to prioritize long-term financial objectives. This enables people to make thoughtful choices that improve their overall financial health (Boto-García et al., 2022; Fred van Raaij et al., 2023; Peetz & Davydenko, 2021; Schomburgk & Hoffmann, 2023; Sekścińska et al., 2021a). High self-control is associated with healthy financial habits including careful spending and efficient saving and cautious investment choices which contribute to financial stability (Sekścińska et al., 2021a, 2021b). Financial literacy is essential for developing financial discipline as it equips individuals with the understanding and abilities necessary to make informed financial choices and enhance their ability to manage their finances effectively (Abdallah et al., 2024; Anwar, 2024;



Rey-Ares et al., 2021). People who have a solid grasp of financial principles are more capable of establishing realistic goals, anticipate future needs and evaluate the consequences of their spending choices (Boto-García et al., 2022; Schomburgk & Hoffmann, 2023). Furthermore, financial literacy enhances the ability to reflect on past financial behaviours and enable individuals to recall successful decisions that bolster their confidence in resisting temptations (Amagir et al., 2020; Filotto et al., 2024; Hasan et al., 2023). This thoughtful approach minimizes hasty financial choices and assists people in managing intricate financial circumstances (López et al., 2023; Rey-Ares et al., 2021; Sekścińska et al., 2021a). Therefore, financial literacy serves as a vital tool in promoting self-control and mitigating the risks associated with low self-control such as over-indebtedness and excessive reliance on high-cost credit (Hasan et al., 2023; Rey-Ares et al., 2021). Thus, It is hypothesized :

H2 : Financial Literacy Influences Financial Self-Control

Financial Literacy and Perceived Risk

Perceived risk refers to an individual's personal evaluation of possible adverse consequences such as financial losses or security threats which are associated with adopting new technologies or financial products (Charag et al., 2020; El Mallouli & Sassi, 2021; Naeem, 2021; Namahoot & Jantasri, 2023; Šerić & Mikulić, 2023; Soares et al., 2023; Ververthi et al., 2024). This perception of risk often deters consumers from engaging with financial innovations as they may fear adverse consequences like data breaches and fraud or reputational harm which are particularly salient in digital finance contexts (Naeem, 2021; Namahoot & Jantasri, 2023; Vijay Amrit Raj et al., 2024b). Financial literacy can play a crucial role in shaping these perception. It enhances individuals' ability to critically assess and manage potential risks and distinguishes between realistic threats and perceived uncertainties based on limited understanding (El Mallouli & Sassi, 2021; C. B. Gunawan, 2024; Soares et al., 2023). For instance, Individuals with greater financial knowledge might be more inclined to identify the structured safeguards within legitimate financial platforms and reduce their fear of misuse or fraud (Jain & Raman, 2021, 2022). Moreover, a solid foundation in financial literacy can help individuals weigh both risks and benefits and facilitate a more balanced view and encouraging the use of potentially beneficial financial services. This connection implies that a higher level of financial literacy tends to reduce the perception of risk. Thus we hypothesize :

H3 : Financial Literacy Influences Perceived Risk.

Financial Self-Control and BNPL Adoption

Financial self-control significantly influences consumer behaviour regarding BNPL. People who possess strong self-discipline tend to make more thoughtful purchasing decisions and are less likely to give in to impulse buys which helps them steer clear of



using BNPL services for unnecessary expenses (Sekścińska et al., 2021a, 2021b). Research shows that People who have excellent self-discipline are able to manage their finances efficiently and to reduce the risk of overindebtedness associated with short-term credit products like BNPL (Gerrans et al., 2021; C. B. Gunawan, 2024). In contrast, consumers who have limited self-control are often drawn to BNPL due to its instant gratification but they may struggle with managing deferred payments which lead to financial distress (Juita et al., 2024; Schomburgk & Hoffmann, 2023). As a result, managing one's finances effectively is essential for ensuring the responsible utilization of BNPL services. Thus, we hypothesize :

H4 : Financial Self-Control Influences BNPL Adoption.

Perceived Risk and BNPL Adoption

Perceived risk significantly affects consumer adoption of BNPL. Individuals weigh potential negative outcomes associated with these financial products. Concerns about hidden fees, data privacy and the risk of accumulating unmanageable debt often lead to hesitation in using BNPL (Baidoun & Salem, 2023; Gerrans et al., 2021; Naeem, 2021; Vijay Amrit Raj et al., 2024a, 2024b). The lack of regulatory oversight further intensifies these fears. Consumers worry about unforeseen financial obligations and potential loss of control over their spending (Vijay A Raj et al., 2023; Vijay Amrit Raj et al., 2024b). On the other hand, when consumers feel informed and capable of managing the inherent risks, their willingness to adopt BNPL services increases (El Mallouli & Sassi, 2021; Wu et al., 2020) (Gunawan, 2024; Halim et al., 2022). Therefore, understanding perceived risk is crucial for financial institutions aiming to enhance the appeal of BNPL offerings. The hypothesis posited here is :

H5 : Perceived Risk Positively Influences BNPL Adoption.

The theoretical framework of the study is provided in Figure 1.

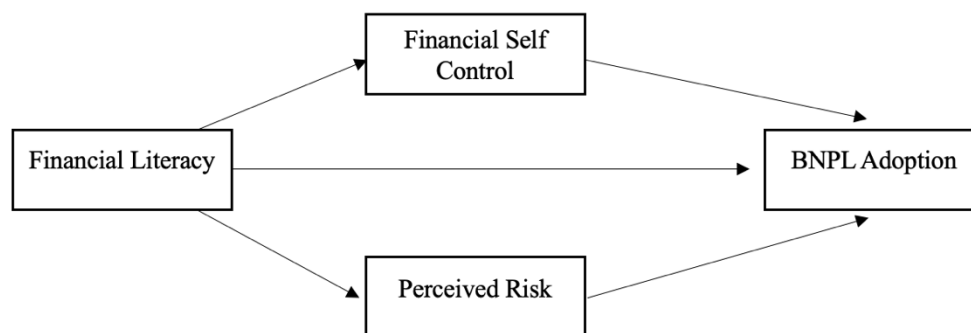


Figure 1: Conceptual Framework

Source: Author's work



METHODOLOGY

Data Collection

The data collection involved administering a structured questionnaire via hybrid online and offline interviews using a non-probability quota sampling method from June to September at four public universities located in turkey. Participants were online shoppers who utilized digital payment methods. Participants had two choices to finish the survey. They could either use the tablet supplied or scan a QR code to open the survey on their personal device while being supervised by the enumerator. A sum of 364 responses were considered appropriate for analysis by fulfilling the suggested sample size criteria. based on The "10 times rule" for PLS-SEM research (Joe F Hair et al., 2020). The sample comprised 43% male and 57% female respondents.

Measures

This study applied previously established scales to assess the constructs under examination. The financial literacy scale which comprises five items is adapted from Filotto et al. (2024); the financial self-control scale from Schomburgk & Hoffmann (2023); perceived risk from Raj et al. (2024); and BNPL adoption from Kumar & Nayak (2024). We sought advice a content validity from experienced experts who recommended small changes to enhance the wording of the questionnaire and to ensure it aligns more effectively with the study's particular context. A preliminary test was carried out involving 50 participants to assess how clear and understandable the questionnaire was. Each construct in the study was measured using a 5-point Likert scale.

RESULT

The analysis of the data was performed using partial least squares structural equation modelling (PLS-SEM) in SmartPLS version 4.0.9.5. This method integrates analysis of factors which use linear regression to examine relationships between latent constructs based on observed data (Joe F Hair et al., 2020). The research employed a two-stage methodology. The first phase is Confirmatory Factor Analysis (CFA) which was applied to evaluate the consistency and validity of the underlying constructs. Path analysis was conducted in the second phase to examine the relationships and test the hypothesized connections between the variables. (Joe F Hair et al., 2024).

Measurement Results

The assessment of validity, reliability and internal consistency was conducted for all constructs as in Table 1. The factor loadings consistently surpassed the threshold of 0.737 and indicated strong factor structure and were well above the minimum acceptable value of 0.7. In addition, both the Average Variance Extracted (AVE) and Composite Reliability (CR) for each construct were significantly higher than the



recommended thresholds of 0.50 and 0.70 respectively. This further supports the evidence of robust internal reliability and convergent validity which reinforce the soundness of the measurement model (Joe F Hair et al., 2024) as in Table 1. The square roots of the Average Variance Extracted (AVE) for each latent variable were found to be higher than the correlation coefficients between the variables which provide strong evidence of discriminant validity. This indicates that each latent variable is distinct and does not overlap significantly with others in the model (Hair et al., 2020). Additionally, the heterotrait-monotrait criterion was used to verify discriminant validity correlation coefficients for all latent variables were found to be significant and remained below 0.90 and minimized multicollinearity concerns (Hair et al., 2019) as in Table 2. The values for all items were under 5 and further confirmed that the constructs which are used to measure study variables were not affected by multicollinearity issues (Joe F Hair et al., 2024).

Table 1 : Measurement Model Assessment

Variables	Factor Loading	CA	CR	AVE
Financial Literacy		0.761	0.859	0.669
FL1	0.856			
FL2	0.821			
FL3	0.776			
Financial Self Control		0.815	0.879	0.644
FSC1	0.737			
FSC2	0.847			
FSC3	0.823			
FSC4	0.800			
Perceived Risk		0.813	0.877	0.640
PR1	0.800			
PR2	0.789			
PR3	0.780			
PR4	0.831			
Buy Now Pay Later (BNPL) Adoption		0.868	0.909	0.716
BA1	0.869			
BA2	0.889			
BA3	0.803			
BA4	0.820			

Source: Authors' own work

Table 2 : Heterotrait–Monotrait Ratio of Correlations



Variables	Buy Now Pay Later (BNPL) Adoption	Financial Literacy	Financial Self Control	Perceived Risk
Buy Now Pay Later (BNPL) Adoption				
Financial Literacy	0.512			
Financial Self Control	0.824	0.781		
Perceived Risk	0.859	0.514	0.778	

Source: Authors' own work

Common Method Bias

The cross-sectional design employed in this study amplifies the risk of common method bias (CMB) which could potentially distort the results. Harman's single-factor test was conducted to counteract this issue to be a diagnostic tool to assess the extent of CMB and ensure the validity of the findings (Harman, 1976). It revealed a variance below 50 percent and indicated a minimal presence of CMB. Further, Extra precautions were implemented prior to and throughout the data gathering process to reduce the risk of Common Method Bias (CMB). The survey was structured into separate segments to establish emotional and spatial distinctions which were assisted in resetting the participants' viewpoints and minimizing the chances of bias (Podsakoff et al., 2003). Participants were guaranteed that their answers which were for academic use only would be kept private and that there were no correct or incorrect responses anticipated to minimize any potential bias (MacKenzie & Podsakoff, 2012). The collinearity test which was advised for PLS-SEM analyses was conducted and produced VIF values under 3.3 and confirmed that there was no issue with common method bias (CMB) (Kock, 2015).

Structural Model Results

The evaluation of the structural model was conducted according to the guidelines outlined by Joe F Hair et al. (2020, 2024). Structural relationships in the study were examined to verify that multicollinearity is not present. The variance inflation factor (VIF) values for each research variable were all below 5 and confirmed that multicollinearity was not an issue. R^2 remains the most widely recommended indicator for evaluating structural models (Joseph F Hair et al., 2019). The R^2 values for the endogenous variables were acceptable with Buy Now Pay Later (BNPL) Adoption at 0.632, Financial Self-Control at 0.402 and Perceived Risk at 0.186. Additionally, the standardized root mean square residual (SRMR) is a commonly recognized metric for assessing model fit (Pavlov et al., 2021). The SRMR value in this case was 0.067, which was significantly lower than the 0.08 limit suggested by Benitez et al. (2020) and confirmed that the model fit is acceptable.



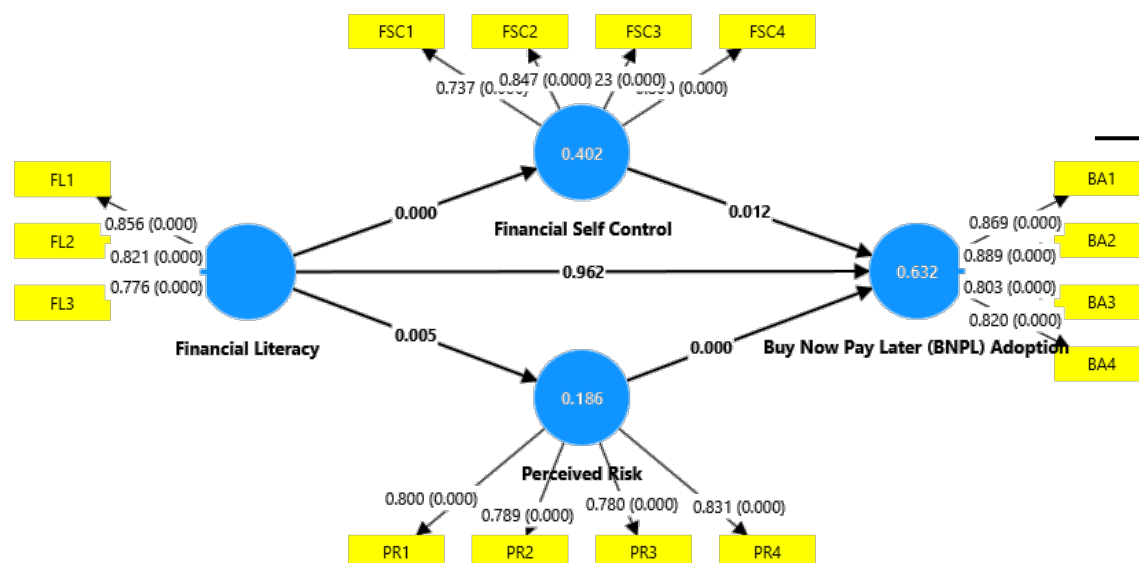


Figure 2 : Results Of Measurement Model

Source: Authors' own work

Table 3 : Results of Hypotheses Testing

Hypothesis	Path Analysis	T statistics	P values
H1	Financial Literacy -> Buy Now Pay Later (BNPL) Adoption	0.047	0.962
H2	Financial Literacy -> Financial Self Control	9.427	0.000
H3	Financial Literacy -> Perceived Risk	2.832	0.005
H4	Financial Self Control -> Buy Now Pay Later (BNPL) Adoption	2.523	0.012
H5	Perceived Risk -> Buy Now Pay Later (BNPL) Adoption	4.365	0.000

Source: Authors' own work

The analysis results demonstrated that all tested hypotheses were significant except for H1 (refer to Table 3 and Figure 2). Findings indicated that financial literacy does not have a direct impact on BNPL adoption ($t = 0.047$, $p = 0.962$) and resulted in the rejection of H1. However, financial literacy showed a positive association with financial self-control ($t = 9.427$, $p = 0.000$) and supported H2. Moreover, financial literacy was found to be positively linked to perceived risk ($t = 2.832$, $p = 0.005$) and validated H3. Financial self-control emerged as a positive predictor of BNPL adoption ($t = 2.523$, $p = 0.012$) and confirmed H4. Lastly, perceived risk was shown to have a positive impact on BNPL adoption ($t = 4.365$, $p = 0.000$) and confirmed H5.



DISCUSSION

The results of this research offer a significant understanding of the ways in which financial literacy, financial self-control and perceived risk interact to shape Buy Now Pay Later (BNPL) adoption. While Financial literacy can enhance individuals' financial awareness and Self-discipline seems to have no immediate impact on the decision to use BNPL, financial literacy also suggests a more complex relationship between financial understanding and credit usage behaviours. This aligns with insights from Filotto et al. (2024) and Raj et al. (2024b) who evaluate that financial literacy alone may not translate to product adoption but rather acts as a buffer and potentially guide individuals toward prudent financial choices. Financially literate consumers tend to be more risk-averse and cautious especially towards unregulated credit options like BNPL as supported by Gerrans et al. (2021) and Powell et al. (2023). This result may indicate that greater financial knowledge heightens consumers' ability to discern potential pitfalls of BNPL such as unexpected fees, long-term debt risks and limited consumer protections which reduce their likelihood of adopting it impulsively.

Additionally, the finding that financial literacy positively influences financial self-control emphasizes the significance of understanding in promoting responsible financial habits. This perspective is also supported by Gunawan (2023) and Schomburgk & Hoffmann (2023). Self-control has emerged in the literature as a critical factor in financial behaviour and moderated the relationship between credit availability and responsible credit use (Rey-Ares et al., 2021; Schomburgk & Hoffmann, 2023). Financially literate individuals appear better equipped to exercise restraint. This supports theories which suggest that financial understanding promotes better budgeting, saving and careful consideration of financial risks (Filotto et al., 2024). This reinforces the view that even financial literacy alone may not encourage BNPL adoption, it shapes a more cautious approach that aligns with informed decision-making principles. This is consistent with Ververthi et al. (2024) and (Vijay Amrit Raj et al., 2024a)

The finding that financial self-control positively predicts BNPL adoption introduces a complex dimension and confirms that individuals with high self-regulation may strategically use BNPL services without undermining their financial stability. This outcome aligns with theories from Rey-Ares et al. (2021) and Lopez et al. (2024) who argue that self-control mitigates impulsive spending tendencies even in high-risk credit contexts. Self-regulated consumers may perceive BNPL as a flexible tool rather than a credit risk and use it as part of a broader financial management strategy. Consumers who were observed by Guttman-Kenney et al. (2023) engaged with BNPL in ways that align with their budgeting goals and avoid the pitfalls of excessive debt through conscious decision-making.

Conversely, perceived risk appears to play a nuanced role which it actually supports BNPL adoption despite highlighting the potential drawbacks of BNPL usage. This aligns



with the findings of Naeem (2021) which posits that individuals appraise and manage perceived risks based on their sense of control over potential negative outcomes. This duality is also reflected in findings by Namahoot & Jantasri (2023) who stated that while perceived risk can deter some consumers, others may adopt BNPL for its perceived short-term convenience despite awareness of the risks. Kumar & Nayak (2024) emphasize that this outcome may indicate that certain consumers weigh the benefits of BNPL such as deferred payments and cash flow flexibility, against the risks and creating a cognitive balance that still supports adoption.

CONCLUSION

This study reveals the complex dynamics influencing BNPL adoption and demonstrates that financial literacy, financial self-control and perceived risk interact in distinctive ways to shape consumer behaviour. While financial literacy is essential for enhancing awareness and self-discipline, it does not directly drive BNPL adoption but instead encourages consumers to approach such credit options with caution. Individuals with high financial literacy appear more conscious of potential risks and less inclined to adopt BNPL impulsively and reflect a trend towards informed decision-making. Conversely, financial self-control emerges as a significant predictor of BNPL adoption and suggests that consumers who manage their spending well perceive BNPL as a strategic tool rather than a risk and use it flexibly without compromising their financial stability. Perceived risk also plays an influential role as some consumers may adopt BNPL services despite acknowledging associated uncertainties. It is possible due to the immediate financial convenience these services offer. These findings also underscore the critical importance of educating consumers on both the benefits and risks of BNPL options to foster responsible use and ensure that BNPL serves as an empowering financial tool rather than a debt trap. The insights provided here emphasize the need for policymakers and providers to align consumer education with transparent lending practices, facilitating a balanced and informed approach to BNPL within the evolving digital finance landscape.

IMPLICATION

Theoretical Implication

The results of this research provide valuable theoretical insights that deepen the comprehension of consumer behavior regarding the adoption of BNPL and provide nuanced insights within the framework of financial literacy, self-control and perceived risk. First, this research extends existing theories on financial literacy by illustrating that while financial knowledge is vital even it alone does not drive BNPL adoption directly. Instead, it enhances self-control which in turn influences credit use behaviours. This suggests that financial literacy is most effective when paired with strong behavioural components and offers a refined perspective on how knowledge and self-discipline interplay to shape financial choices. Second, The research emphasizes the importance



of self-control in technology-driven financial adoption and highlightens self-control as an essential mediator between financial literacy and BNPL use and advances theoretical models that explore consumer impulsivity, self-regulation and digital credit acceptance. Third, This study challenges the traditional view that higher risk perceptions deter usage by demonstrating the positive influence of perceived risk on BNPL adoption. This indicates that consumers may weigh immediate financial benefits more heavily than potential downsides in digital finance contexts. This finding underscores the need for theories on risk perception to incorporate situational and contextual factors that may affect consumers' acceptance of innovative financial products. Overall, these insights provide a deeper insight, more cohesive view of how cognitive, behavioral and risk-associated elements shape the adoption of BNPL and advance theoretical frameworks on consumer behaviour in the evolving landscape of digital finance.

Practical Implication

This study provides practical implications that can guide financial institutions, policymakers and educators in shaping more effective strategies for responsible BNPL adoption. First, It gives the limited direct impact of financial literacy on BNPL usage. Financial service providers should focus on offering tailored educational content that not only conveys information but also reinforces self-control in financial decisions. This could be achieved through interactive learning modules, simulations and tools that help users anticipate and manage potential credit risks. Second, policymakers who aim to support the responsible use of BNPL should consider creating guidelines and interventions that emphasize self-regulation skills particularly among younger users and frequent online shoppers. These could include features within digital finance apps that encourage spending limits, budgeting tools and reminders to promote mindful consumption. Third, It is considered that perceived risk positively influences BNPL adoption. Regulators should work to ensure transparency in BNPL terms, fees and conditions to help users make informed choices. Disclosure policies that outline the potential financial consequences as well as proactive measures to protect users' data could mitigate unintended financial strain and improve consumer trust. Finally, It is important to educators to incorporate modules on self-control, risk perception and responsible digital finance use into financial literacy programs will build foundational skills among consumers and to prepare them better to navigate digital credit options with greater awareness.

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