

CONSUMER BEHAVIOR | RESEARCH ARTICLE

# The Interplay of Mindfulness, Impulsive Buying, and Perceived Risk in Buy Now Pay Later (BNPL) Usage among Mature Generations in Indonesia

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## Abstract

**Background:** Concerns are being raised about the effects of the growing use of Buy Now Pay Later (BNPL) in Indonesia on financial well-being and consumer behavior, particularly among Millennials and Gen X.

**Purpose:** This study aims to examine the relationship between BNPL usage and financial well-being, considering the role of mindfulness and the tendency for impulsive buying. It further explored the role of Perceived Risk as a moderator in the relationship between mindfulness and BNPL usage.

**Method:** This study employed a quantitative, scientific method using numerical data and analyzed using statistical methods. The sampling method used was purposive, specifically targeting BNPL users from the Gen X and Millennial demographics in Indonesia. Data collection using a questionnaire yielded 327 respondents.

**Findings:** Mindfulness was positively correlated with BNPL usage, reducing the tendency for impulsive buying. Conversely, the tendency to make impulsive purchases increased BNPL usage. Perceived Risk further moderated the relationship between mindfulness and planned BNPL usage.

**Conclusions:** Mindful adult users were more inclined to avoid impulsive buying and instead used BNPL for more necessary expenses, indicating a nuanced relationship between psychological traits and financial behavior.

**Research implication:** These results helped policymakers develop initiatives to enhance financial education and reduce the risks associated with BNPL adoption.

**Keywords:** BNPL, financial well-being, impulsive buying tendency, mature generations, mindfulness, perceived risk

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## PUBLIC INTEREST STATEMENT

Because this research focuses on BNPL users in Generation X and Millennials, the main challenge in this study is in terms of obtaining respondents. This is because these two generations rarely use paylater due to financial stability and reluctance to bear the risks that arise from using BNPL. In addition, this age group is not very adaptive to using technology, so they need special guidance in filling out the questionnaire.



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## 1. Introduction

Buy Now Pay Later (BNPL) is a form of short-term credit that allows consumers to pay for purchases in installments over a specified period. Typically, BNPL arrangements include fixed installment payments and are often promoted as interest-free with no additional fees. Through BNPL applications, consumers can shop and select the “buy now, pay later” option at checkout when buying from participating retailers. In Indonesia, the BNPL user base has reached 14.37 million, reflecting the growing appeal of flexible payment solutions. According to the Financial Services Authority (OJK), Millennials (1981-1996) account for 43.9% of users, followed by Gen Z (26.5%) and Gen X (21.3%). Although this service offers convenience, its growing use also entails financial risks, such as accumulating debt, missed payments, and limited consumer protection.

Beyond functional considerations, BNPL adoption can also be influenced by emotional drivers, such as fear or anxiety about future financial conditions. Powell et al. (2023) and Budiman et al. (2025) outlined that these emotions often evolved in broader financial decision-making contexts, including investment behavior. In the BNPL context, concerns about urgent needs or limited cash flow can prompt consumers to prefer flexible payment options to alleviate short-term financial strain. Although earlier literature primarily examined emotional drivers in investment decisions, similar mechanisms may apply to BNPL adoption as consumers aim to manage personal financial risks.

In Indonesia, the BNPL user base has grown significantly to 14.37 million, underscoring the increasing appeal of flexible payment solutions (OJK, 2024). According to the OJK, public BNPL debt reached Rp6.13 trillion as of March 2024, up 23.90% from March 2023. These figures outline the growing dependency on BNPL services, particularly among the productive-age population. Demographic data indicate that Millennials (born between 1981 and 1996) constitute the largest segment of BNPL users, accounting for 43.9%, followed by Gen Z (26.5%) and Gen X (21.3%) (OJK, 2024). Although most discussions tend to focus on Gen Z's digital behavior, the usage patterns among Millennials and Gen X, who carry heavier financial responsibilities such as mortgages and education costs, are often overlooked. These cohorts, though generally more financially established, may still be vulnerable to overconsumption due to the ease and perceived safety of BNPL.

Improvements in digital access and basic literacy often support the increasing adoption of BNPL. However, digital literacy does not automatically translate to financial literacy, particularly in understanding the terms and risks of short-term credit services. Studies have shown that many BNPL users in Indonesia remain unaware of potential financial consequences, including overspending, late fees, and insufficient consumer protection frameworks (Antoni, 2025). This is particularly problematic for middle-class consumers who may rely on BNPL to manage daily needs during economic pressures. Technoz (2024) asserted that Millennials and Gen X, despite having higher income stability, underestimated the long-term risks associated with BNPL usage when not supported by adequate financial planning. In this context, financial literacy plays a critical role in mitigating the risk of falling into debt cycles, specifically when users do not fully understand interest accumulation or penalty structures (Marheni et al., 2023). Despite the growing body of publications on BNPL behavior among younger users, there remains a gap in understanding how psychological factors such as impulsive buying and mindfulness affect BNPL usage among mature age groups. This study aims to fill that gap by examining the behavioral drivers influencing BNPL adoption, particularly among Millennials and Gen X, who balance digital convenience with greater financial burden.

Although the theory of planned behavior (TPB) explains BNPL adoption through attitudes, subjective norms, and perceived behavioral control, the study proposes that mindfulness

moderates these intentions by enhancing self-control. Motivation theory further suggests that individuals with higher self-control are more inclined to engage in planned, responsible financial behaviors, thereby reducing their vulnerability to debt traps. Recent BNPL studies have expanded beyond TPB, showing that impulsive buying tendencies, perceived risk, and emotional regulation also shape adoption decisions (Kumar & Nayak, 2024; Cuandra et al., 2024). In this framework, mindfulness functions not only as a direct inhibitor of impulsive tendencies but also as a regulatory mechanism that determines whether positive attitudes and social pressures toward BNPL translate into actual usage.

Most studies on BNPL usage focus on Generation Z (Abed et al., 2024; Aina et al., 2023; Aisjah, 2024) or adopt a cross-generational approach (Juita et al., 2023a; Kumar et al., 2024; Pereira et al., 2024; Schomburgk et al., 2023). This leaves a gap in the literature regarding the more mature generation, namely Millennials and Gen X, who also represent a significant segment of BNPL users. The emphasis has left a significant gap in the literature concerning Millennials (1981-1996) and Gen X (1965-1980), two cohorts that not only account for a substantial proportion of BNPL users but also differ substantially from younger generations in life stage, financial obligations, and spending priorities. In contrast to Gen Z, these older cohorts are more inclined to have stable incomes, higher purchasing power, and established credit histories. However, they also face larger financial commitments such as mortgages, child-rearing costs, and long-term savings objectives. These factors may influence BNPL usage in ways that are distinct from younger consumers, potentially blending convenience-driven adoption with risk-averse financial decision-making. Therefore, understanding BNPL behavior in these groups is critical for developing targeted financial literacy initiatives and consumer protection policies.

Considering the existing gap, this study is designed with several key objectives. First, it aims to investigate the role of perceived risk as a moderating factor in the relationship between mindfulness, impulsive buying tendency, and financial behavior in the BNPL context. Second, the analysis aims to assess how Millennials and Gen X perceive financial risks associated with BNPL use and how these perceptions influence long-term financial well-being. Third, the study aims to provide a deeper understanding of consumer behavior when confronted with complex financial choices, outlining psychological and behavioral dynamics that drive decision-making. Finally, the results are expected to generate evidence-based recommendations for policymakers to strengthen consumer protection frameworks and promote financial literacy, ensuring more sustainable financial practices among BNPL users.

## **2. Literature Review**

### **2.1 Underlying Theories**

This study integrated four theoretical perspectives to explain BNPL adoption by explicitly connecting each to the decision process. Mindfulness theory, as proposed by Brown and Ryan (2003), posits that increased present-moment awareness enables individuals to recognize emotional and situational triggers before making purchases. In the BNPL context, mindful consumers adopted BNPL not merely for spontaneous buying but as a deliberate tool for managing cash flow and correlating spending with actual needs, using it in a planned rather than impulsive manner. The impulsive buying theory by Eysenck and Eysenck (1978) posits that a high impulsivity trait increases the likelihood of unplanned purchases, as BNPL can act as an enabler by removing immediate payment barriers, thereby satisfying hedonic urges.

Risk perception theory, rooted in the theory of perceived risk, suggested that when perceived financial or security risks of BNPL were low, adoption possibility increased, while high perceived risk could deter usage even among impulsive buyers (Bauer & Bauer, 1960). Finally, the financial well-being theory by Brügger et al. (2017) connected BNPL usage to longer-term financial outcomes, namely responsible, mindful usage improved liquidity and perceived well-being, and excessive, impulsive usage eroded financial stability. By combining these perspectives, the study captured causal mechanisms from psychological traits and risk assessments to BNPL adoption decisions and their subsequent impact on financial well-being.

## **2.2 The Influence of Mindfulness on BNPL Usage**

Mindfulness, a concept that has garnered significant attention in both daily life and academic studies, emphasizes full awareness of the present moment from the perspective of “here and now.” The core aspect included directing complete attention to the current experience without dwelling on the past or worrying about the future (Yiğit, 2020). Previous studies have presented mixed evidence on the relationship between mindfulness and BNPL usage. On one hand, several results indicated that mindfulness reduced BNPL adoption because it enhanced financial self-control, prompting consumers to evaluate the actual necessity of a purchase before committing, lowering the temptation to use BNPL (Pereira & Coelho, 2019). Mindfulness also fostered a healthier financial mindset, reduced the tendency to view money as a source of power, and motivated limiting current consumption in preparation for the Schomburgk and Hoffmann (2023) reported that mindful individuals used BNPL more frequently, specifically when it was perceived as a planned and convenient financial tool supporting liquidity management. Considering this mixed evidence, and recognizing that Millennials and Gen X in Indonesia tended to have higher financial literacy, mindfulness would possibly function as a self-regulatory mechanism discouraging unnecessary BNPL use. Based on the results, the following hypothesis was proposed.

H1: Mindfulness had a significant negative impact on BNPL Usage.

## **2.3 The Influence of Mindfulness on Impulsive Buying Tendency**

Mindfulness helped individuals control the responses to external stimuli, thereby reducing the tendency to make impulsive buying (Dhandra, 2020). An individual with high self-efficacy tended to have a low intention to use BNPL (Aisjah, 2024). Higher levels of mindfulness enabled individuals to regulate emotional impulses better, making them more capable of avoiding unplanned purchases (Vihari et al., 2022). The relationship between mindfulness and impulsive buying showed that mindfulness influenced a person's tendency to make these purchases. Individuals with low mindfulness levels possessed significant hedonic shopping value, which affected impulsive buying behavior. Conversely, hedonic shopping value did not significantly influence impulsive buying for those with high mindfulness (Hua, 2022). Customers who perceive the online transactions as straightforward tend to be more satisfied (Elverda et al., 2025). This convenience triggered impulsive behavior in individuals with low mindfulness, as the lack of awareness during transactions makes the person more susceptible to unplanned purchases. In the context of consumer behavior, intention was considered a direct precursor to behavior (Az-Zahrah et al., 2025). Low mindfulness caused impulsive buying intentions to be translated into actual behavior without prior reflection, thereby increasing the possibility of impulsive buying.

H2: Mindfulness had a significant negative impact on impulsive buying tendency.

## **2.4 The Influence of impulsive buying tendency on BNPL usage**

Impulsive buying refers to unplanned and emotionally driven purchases, often triggered by internal urges or external cues (Gawior et al., 2022). Credit access through delayed payment methods, such as BNPL, lowered barriers to purchase, thereby amplifying impulsive behavior (Felipe et al., 2017). Studies showed that individuals with high impulsivity often possessed a positive attitude toward BNPL, using it to satisfy immediate desires without upfront payment (Kumar & Nayak, 2024). The ease of access increased the risk of debt accumulation, specifically among compulsive buyers who tended to use multiple credit tools (Aina and Chalid, 2023). Although impulsivity was a key factor, peer influence and social exposure, such as social media trends, also drove BNPL adoption among image-conscious consumers. These external factors reinforced impulsive tendencies and motivated excessive use. Although this study focused on impulsivity, the analysis acknowledged that BNPL use was multifaceted, shaped by both psychological traits and social influences, which led to the following hypothesis.

H3: Impulsive buying tendency had a significant positive impact on BNPL usage.

## **2.5 The Influence of BNPL Usage on Financial Well-Being**

Financial well-being refers to an individual's perception of the current financial situation, comprising the ability to meet basic needs, feeling secure, and planning for the future (Tahir et al., 2021). As an evolving area of study in financial planning, financial well-being received increasing attention due to the close connection with decision-making and broader quality of life (Papich et al., 2022). In the context of BNPL services, recent results have presented mixed evidence on their impact on financial well-being. On one hand, excessive and uncontrolled BNPL usage was associated with increased financial pressure, reduced perceived security, and a decline in overall consumer welfare (Aisjah, 2024). These effects were particularly evident when consumers lacked the financial discipline or planning required to manage short-term credit obligations. On the other hand, conditional effects were observed in certain studies.

Powell et al. (2023) found that moderate and responsible use of BNPL, specifically among users with stable income and good credit management, supported better short-term liquidity and contributed positively to financial well-being. Tahir and Ahmed (2021) Similarly, it is argued that at certain credit score levels, BNPL users could maintain or even enhance financial stability. The analysis further suggested that BNPL's effect on financial well-being was not uniformly negative. Given the high prevalence of impulsive BNPL use and low financial literacy among the general public, this study hypothesized a negative relationship between BNPL use and financial well-being. This position was supported Wu and Peng (2024) and Powell et al. (2023), suggesting that higher BNPL adoption correlated with increased debt accumulation, missed payments, and elevated financial stress for the majority of users in evolving markets. Although some conditional benefits existed, the broader pattern indicated that greater BNPL usage tended to undermine financial well-being for typical users in the studied context.

H4: BNPL usage had a significant negative impact on financial well-being.

## **2.6 The Mediating Role of Impulsive Buying Tendency**

Impulsive buying refers to spontaneous purchasing behavior driven by immediate gratification, rather than by a deliberate need or problem-solving intention (Dhandra, 2020; Kumar Gupta, 2025; Vihari et al., 2022). This type of behavior was typically unplanned and emotionally driven. Several studies have consistently shown that higher



levels of mindfulness were associated with lower impulsive buying tendencies. Mindfulness enhanced individuals' ability to stay present by allowing them to observe their thoughts and emotions non-judgmentally, thereby improving self-awareness and self-regulation. These qualities made individuals more reflective and less inclined to engage in impulsive purchasing behavior.

In contrast, individuals with strong impulsive buying tendencies were more inclined to adopt BNPL services, which allowed purchases without immediate payment. Based on these relationships, the impulsive buying tendency was proposed as a mediator between mindfulness and BNPL usage. Specifically, more mindful individuals exhibited lower impulsivity, which subsequently reduced their reliance on BNPL services (Schomburgk & Hoffmann, 2023; Kumar et al., 2024). This mediating pathway outlined how internal self-regulation (via mindfulness) indirectly influenced external financial behaviors (BNPL use) by reducing impulsivity.

H5: Impulsive buying tendency mediated the relationship between mindfulness and BNPL usage.

## **2.7 The Moderating Role of Perceived Risk**

Perceived risk moderated the relationship between mindfulness and BNPL usage. Individuals with a high level of mindfulness tended to consider risks more in financial decisions. However, when the individuals perceived a high risk associated with BNPL usage, this reinforced the decision to avoid that option (Juita et al., 2023b). Individuals with a lower perceived risk were more inclined to engage in debt, including BNPL usage. Someone ready to face risks was more inclined to make risky financial decisions, such as using BNPL to make purchases (Aina & Abdul Chalid, 2023). Perceived risk moderated the relationship between impulsive buying tendency and BNPL usage. When individuals perceived a high risk associated with BNPL, they would be more cautious in using that option, even though the impulsive urge remained. On the other hand, low risk increased the possibility of BNPL usage (Juita et al., 2023b). Based on the results, the next hypothesis in this study was as follows.

H6: Perceived risk moderated the relationship between mindfulness and BNPL usage.

H7: Perceived risk moderated the relationship between impulsive buying tendency and BNPL usage.

## **3. Conceptual Framework**

Building on the background and literature review, this study aimed to examine the relationship between mindfulness and BNPL usage, with impulsive buying tendency as a mediating variable. Additionally, the analysis used perceived risk as a moderator of the relationship between mindfulness and BNPL usage, as well as between impulsive buying and BNPL usage. The relationship between BNPL usage and financial well-being was also investigated. Overall, there was an indirect relationship through serial mediation between mindfulness and financial well-being, including related variables such as impulsive buying tendency, perceived risk, and BNPL usage.

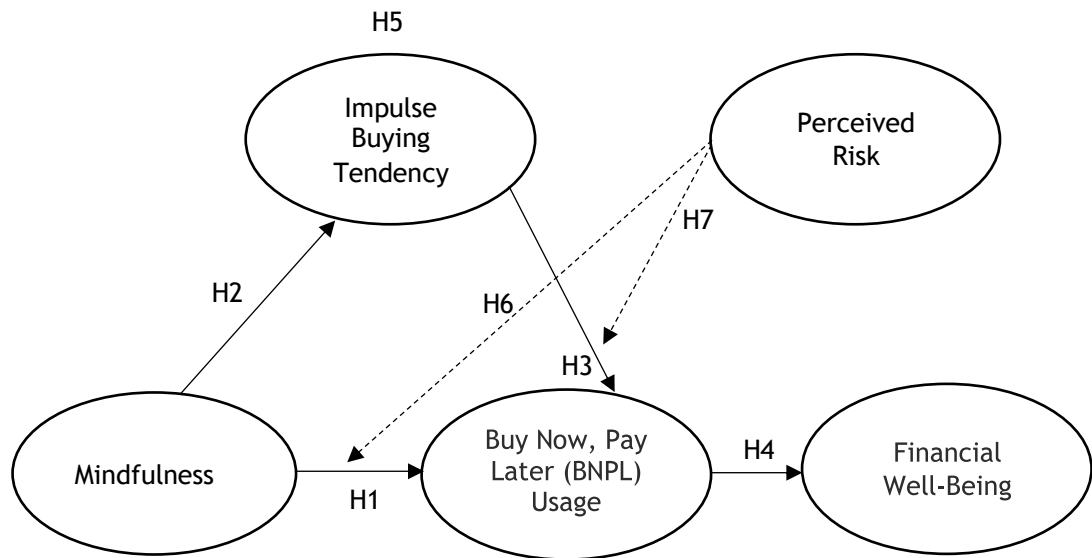


Figure 1. Conceptual framework of the study on the interplay of mindfulness, impulsive buying, and perceived risk in BNPL usage among the mature generation in Indonesia

Based on Figure 1, the hypotheses in this study were formulated as follows.

- H1: Mindfulness had a significant negative impact on BNPL usage.
- H2: Mindfulness had a significant negative impact on impulsive buying tendency.
- H3: Impulsive buying tendency had a significant positive impact on BNPL usage.
- H4: BNPL usage had a significant negative impact on financial well-being.
- H5: Impulsive buying tendency mediated the relationship between mindfulness and BNPL usage.
- H6: Perceived risk moderated the relationship between mindfulness and BNPL usage.
- H7: Perceived risk moderated the relationship between impulsive buying tendency and BNPL usage.

## 4. Methods

### 4.1 Research Design

This study adopted a quantitative method using numerical data to obtain conclusions (Sekaran & Bogie, 2008). A cross-sectional design was applied to address the objectives. The analysis was conducted in Indonesia, a country with a large population that widely uses BNPL, according to the cited data. A survey was also conducted using questionnaires to obtain primary data from the sample population. The survey results were then analyzed using inferential statistics to generalize to the population.

### 4.2 Sampling

This study targeted an Indonesian population of Pay Later service users, including Gen X (born between 1965 and 1980) and Millennials (born between 1981 and 1996). In determining the sample, the analysis used purposive sampling, a non-probability sampling method. This method was selected because the sample criteria were tailored to the study's needs, specifically individuals aged Gen X and Millennials who actively use BNPL services in Indonesia. Additionally, to ensure respondents have experience with the Pay Later service, they must have completed at least one transaction using it. Regarding the sample size, the study included 327 respondents, exceeding the minimum requirement under the "10-times rule" for PLS-SEM, which requires 10 times the

maximum number of inner- or outer-model paths pointing to any construct (Hair et al., 2019). This ensured adequate statistical power given the model's complexity.

4.3 Measurement

This study used several main variables measured on a Likert scale, which allowed respondents to rate their agreement from “strongly disagree” to “strongly agree”. The scale enabled the collection of structured, quantifiable responses to assess relationships among variables such as mindfulness, impulsive buying tendency, BNPL usage, financial well-being, and perceived risk. Mindfulness was measured using five items that reflect an individual’s ability to regulate thoughts, emotions, and actions, specifically in financial decision-making. Impulsive buying tendency was measured using four items that reflect the propensity for spontaneous, unplanned purchases. The BNPL usage construct, measured by eight items, assessed the frequency and extent of BNPL service use in financial transactions. The financial well-being construct consisted of three items that captured a person’s perceived financial security and ability to meet economic needs. The perceived risk variable, assessed with five items, measured an individual’s perception of uncertainty or potential loss associated with BNPL usage. The details on each variable measurement were provided in Table 1.

Table 1. Operational definitions of factors determining BNPL usage and financial well-being

Variables	Operational Definitions	Indicators
Mindfulness (Schomburgk & Hoffmann, 2023)	The quality or state of being conscious or aware of something	1) Easy for me to concentrate on what I am doing 2) Easy for me to understand my own thoughts and feelings 3) Able to accept the thoughts and feelings I have 4) Can easily focus on the present moment 5) Able to concentrate on one thing for an extended period
Impulse Buying Tendency (Schomburgk & Hoffmann, 2023)	Tendency to purchase without much thought, and is more concerned with the instant satisfaction of a desire to purchase than with fixing a pre-existing problem or need	1) Tend to buy items I did not plan to purchase when shopping 2) The type of person who often makes unplanned purchases 3) Buy things that really interest me without considering the consequences 4) Spontaneous shopping is enjoyable
BNPL Usage (Abed & Alkadi, 2024)	The practice of making purchases and paying for them in installments over time, rather than paying the whole amount up front	1) Usefulness of Pay Later in daily life 2) Increased chances of completing important tasks through Pay Later 3) Faster task completion with the help of Pay Later 4) Ease of use of current Pay Later apps in Indonesia



Table 1. Operational definitions of factors determining BNPL usage and financial well-being (Continue)

Variables	Operational Definitions	Indicators
BNPL Usage (Abed & Alkadi, 2024)	The practice of making purchases and paying for them in installments over time, rather than paying the whole amount up front	5) Need-based use of Pay Later applications 6) Availability of assistance when facing difficulties using Pay Later 7) Perceived safety of Pay Later for making payments 8) Expectation of continued use of Pay Later for future financial transactions
Perceived Risk (Nam & Quan, 2019)	The subjective assessment by consumers of the potential negative outcomes associated with borrowing or using credit	1) Awareness of security risks in using payment applications 2) Awareness that payment apps can be attacked or hacked 3) Awareness that others may access personal details when using payment apps 4) Awareness of the risk of personal data misuse by others 5) Awareness of the risk of being held responsible for unauthorized use of personal data 6) The possibility of being unable to make timely payments
Financial Well Being (Powell et al., 2023)	The state of feeling secure and confident about one's financial situation, both objective financial conditions and subjective perceptions	1) Tendency to make unplanned purchases while shopping 2) Enjoyment of life through effective money management 3) Current spending aligns with current income 4) Perceived sufficiency of funds for future financial needs

4.4 Data Collection

Data collection was conducted using an online questionnaire via the Google Forms platform. This study involved 327 respondents who met the criteria. The sample criteria were Gen X and Millennial individuals who actively use BNPL services in Indonesia and have experience with Pay Later services. They must have completed at least one transaction using the service.

4.5 Data Analysis

The analysis included descriptive statistics and structural model testing. Descriptive statistics were conducted to present respondent characteristics using the Statistical Package for the Social Sciences (SPSS) version 28. To test the structural relationships in the model, this study adopted Structural Equation Modelling-Partial Least Squares (SEM-PLS) using Smart-PLS version 4.

Data analysis comprised three main steps, namely Common Method Variance (CMV) analysis, outer model evaluation, and inner model evaluation, with reporting procedures following Hair et al. (2019). The CMV test was conducted using the full collinearity method, in which variance inflation factors (VIFs) were assessed. A threshold of  $VIF < 3.3$  was applied, as recommended by Kock (2015), to indicate the absence of severe common

method bias. This choice was made because the method was well-suited for PLS-SEM and could simultaneously detect both vertical and lateral collinearity. The outer model assessed convergent validity, discriminant validity, and instrument reliability, while the inner model tested hypotheses and evaluated overall model fit. To evaluate validity, the study used convergence and discriminant validity. For internal consistency reliability for each construct, Cronbach’s Alpha ( $\alpha$ ) and Composite reliability were applied. According to Hair et al. (2011) the minimum threshold was 0.7, and composite reliability was a more recommended measurement.

5. Findings

5.1 Demographic Characteristics

This study surveyed 327 active BNPL users, of whom Millennials made up the majority. As reported in Table 2, Shopee PayLater was the most popular platform, followed by GoPay Later and Kredivo, reflecting the popularity of BNPL services integrated into major e-commerce ecosystems. Most respondents reported using BNPL for fashion items and daily necessities, categories closely tied to discretionary and routine spending, while a considerable share reported frequent use, indicating a pattern of habitual reliance. These demographic trends provided important context for examining how mindfulness, impulsive buying tendency, and perceived risk influenced BNPL-related financial behaviors.

Table 2. Demographic respondents

Variables	Indicators	Frequency	Percent
Gender	Male	137	41.9
	Female	190	58.1
Last Education	Junior High School	2	0.6
	Senior High School	73	22.3
	Diploma	30	9.2
	Bachelor’s Degree	171	52.3
	Master’s Degree	40	12.2
	Doctorate	11	3.4
Age	Generation X	118	36.1
	Millennial	209	63.9
Monthly Income (IDR/month)	< IDR 4.500.000	18	5.5
	IDR 4.500.000 - 10.000.000	140	42.8
	IDR 10.000.000 - 20.000.000	125	38.2
	> IDR 20.000.000	44	13.5
Employment	Private Employee	189	57.8
	Government Employee	45	13.8
	Entrepreneur	77	23.5
	Freelancer	12	3.7
	Student	4	1.2
Frequently Used Paylater Services	Kredivo	26	8.0
	Akulaku	21	6.4
	OVO PayLater	27	8.3
	Shopee PayLater	173	52.9
	Gopay Later	77	23.5
	BCA PayLater	2	0.6
	Jenius	1	0.3

5.2 Common Method Variance (CMV)

CMV Analysis was conducted to identify potential biases arising from the use of the same data collection method. Kock (2015) stated that common method bias was detected through the full collinearity test. As shown in Table 3, VIF values were below the threshold of 3.3, indicating the absence of CMV.

Table 3. Collinearity statistics (VIF)

Path	VIF
BNPL Usage → Financial Well-Being	1.000
Impulsive Buying Tendency →BNPL Usage	1.140
Mindfulness → BNPL Usage	1.149
Mindfulness → Impulsive Buying Tendency	1.000
Perceived Risk →BNPL Usage	1.107
Perceived Risk x Impulsive Buying Tendency → BNPL Usage	1.270
Perceived Risk x Mindfulness →BNPL Usage	1.266

5.3 Measurement Model Assessment

The analysis in Table 4 showed that all constructs in the study had adequate validity and reliability. To assess convergent validity, the analysis used the criteria recommended by Hair et al. (2019), namely Outer Loading and Average Variance Extracted (AVE) with thresholds of 0.7 and 0.5, respectively. Furthermore, it was mentioned that an outer loading of 0.6-0.7 was acceptable, provided other criteria were met. Cronbach’s Alpha and Composite Reliability (CR) were used to assess reliability, with a threshold of 0.7. Although the financial well-being variable had a value below 0.7, a value between 0.6 and 0.7 was acceptable (Hair et al., 2019).

Table 4. Validity and reliability test of partial least squares - structural equation modelling

Variables and Source	Indicator	Outer Loading	Cronbach’s Alpha	Composite Reliability	AVE
Mindfulness (M) (Schomburgk & Hoffmann, 2023)	Mindfulness1	0.623	0.806	0.867	0.569
	Mindfulness2	0.682			
	Mindfulness3	0.807			
	Mindfulness4	0.801			
	Mindfulness5	0.837			
Impulse Buying Tendency (IBT) (Schomburgk & Hoffmann, 2023)	Impulse Buying Tendency1	0.791	0.905	0.933	0.779
	Impulse Buying Tendency2	0.927			
	Impulse Buying Tendency3	0.886			
	Impulse Buying Tendency4	0.919			
	BNPL Usage1	0.795			
BNPL Usage (BU) (Abed & Alkadi, 2024)	BNPL Usage2	0.719	0.878	0.903	0.540
	BNPL Usage3	0.705			
	BNPL Usage4	0.714			
	BNPL Usage5	0.720			
	BNPL Usage6	0.788			

Table 4. Validity and reliability test of partial least squares - structural equation modelling (Continue)

Variables and Source	Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
(Abed & Alkadi, 2024) Financial Well-Being (FWB) (Powell et al., 2023)	BNPL Usage7	0.767	0.645	0.767	0.527
	BNPL Usage8	0.659			
	Financial Well-Being1	0.685			
	Financial Well-Being2	0.835	0.893	0.920	0.698
	Financial Well-Being3	0.643			
Perceived Risk (PR)	Perceived Risk1	0.865			
(Nam & Quan, 2019)	Perceived Risk2	0.845	0.849		
	Perceived Risk3	0.788			
	Perceived Risk4	0.862			
	Perceived Risk5	0.849			

5.4 Model Fit and Hypothesis Testing

The structural model was evaluated using R-squared, which measures the variance explained by the endogenous variables. Based on the results, BNPL Usage was explained by mindfulness and impulsive buying tendency, with 33.8%, which fell into the moderate category. Financial well-being was associated with BNPL usage (5.4%), while impulsive buying tendency was associated with Mindfulness (9.4%). Both results fell into the Weak category, and the direct effect results from the model are presented in Table 5.

Table 5. The result of hypothesis testing between mindfulness, BNPL usage, impulsive buying tendency, perceived risk, and financial well-being

Path	Coefficients	t-statistics	p-values	Effect Size	Decision
BU → FWB	0.232	4.377***	0.000	0.057	Supported
IBT → BU	0.475	10.760***	0.000	0.299	Supported
M → BU	0.130	2.961***	0.003	0.022	Supported
M → IBT	-0.306	-5.815***	0.000	0.103	Supported
PR x IBT → BU	-0.075	1.559	0.119	0.007	Not Supported
PR x M → BU	-0.086	-2.141**	0.032	0.012	Supported

Note: (\*\*\*), (\*\*), (\*) denotes significant at 1%, 5% and 10% respectively; BU refers to Buy Now Paylater Usage, FWB refers to Financial Well Being, IBT refers to Impulse Buying Tendency, M refers to Mindfulness, and PR refers to Perceived Risk

The results in Table 5 showed that five out of six hypotheses were supported. Mindfulness was found to significantly influence BNPL usage, suggesting a positive effect. Mindfulness had a negative effect on the tendency to engage in impulsive buying, which supported hypothesis 2. On the other hand, the impulsive buying tendency had a significant influence on BNPL usage. The test results indicated that BNPL usage had a positive, significant impact on financial well-being. Meanwhile, the interaction between perceived

risk and mindfulness positively affected BNPL usage. The interaction between perceived risk and impulsive buying tendency towards BNPL usage did not support the hypothesis.

Table 6. The result of mediation analysis between mindfulness, impulsive buying tendency, BNPL usage, and financial well-being

Variables	Coefficient	Standard deviation (STDEV)	t-statistics ( O/STDEV )	p-values	Decision
IBT → BU →FWB	0.110	0.027	4.014***	0.000	Supported
M → BU → FWB	0.030	0.013	2.259**	0.024	Supported
M → IBT → BU → FWB	0.034	0.011	3.031**	0.002	Supported
IBT → BU → FWB	0.110	0.027	4.014***	0.000	Supported
PR → BU → FWB	0.026	0.012	2.173**	0.030	Supported

Note: (\*\*\*), (\*\*), (\*) denoted significant at 1%, 5% and 10% respectively; BU referred to Buy Now Pay later Usage, FWB referred to Financial Well-Being, IBT referred to Impulsive Buying Tendency, M referred to Mindfulness, and PR referred to Perceived Risk.

Table 6 provides the results of the mediating effect in the model. The path IBT → BU → FWB had a P-value = 0.000, indicating a very strong indirect effect. Additionally, the paths M → BU → FWB and M → IBT → BU → FWB were significant, indicating that mindfulness and impulsive buying tendency played important roles in enhancing financial well-being through BNPL usage. Impulsive buying tendency played a role as a mediator in the relationship between mindfulness and BNPL usage. Mindfulness had a positive effect on the impulsive buying tendency. Impulsive buying tendency had a significant influence on BNPL usage, indicating that individuals with an impulsive buying tendency were more inclined to use BNPL, with the direct relationship between mindfulness and BNPL usage, as well as the indirect relationship through impulsive buying tendency.

6. Discussion

6.1 The Influence of Mindfulness on BNPL Usage

The results show that mindfulness positively affects BNPL usage (H1). This implies that individuals with higher levels of mindfulness tend to increase BNPL usage because they are more aware of the financial decisions they make. These results supported hypothesis (H1) and were consistent with previous studies by Schomburgk and Hoffmann (2023), showing that mindfulness reduced individuals' tendency to use BNPL. Although statistically significant, the coefficient's sign does not align with the study's initial expectations. This is because the subjects are Millennials and Gen X consumers, who tend to have better financial literacy. In this case, those with a high level of mindfulness tend to be more aware of financial decisions (Mappadang et al., 2025).

The individuals are more capable of considering the long-term impact of using BNPL, making them more inclined to use it wisely (Ashby et al., 2025; Brown & Ryan, 2003b; Hua, 2022). Since mindfulness helps individuals manage emotions and stress, by reducing financial anxiety, the individuals may be more open to using BNPL as a tool to facilitate payments without feeling burdened (Powell et al., 2023; Vihari et al., 2022; Wu and Peng, 2024). Furthermore, mindful users might appreciate BNPL's benefits more, such as flexibility in payments and improved cash flow management. This can motivate the users to use the service as a solution that meets personal needs (Issac & Seranmadevi, 2024).



## **6.2 The Influence of Mindfulness on Impulsive Buying Tendency**

The analysis results show that mindfulness has a negative effect on impulsive buying tendency, supporting hypothesis H2 and correlating with previous publications by Dhandra (2020a), Yiğit (2020), and Vihari et al. (2022). Mindfulness enables individuals to recognize emotional impulses better, strengthen self-control, and reduce automatic reactions to stimuli that trigger unplanned shopping. This aligns with mindfulness theory, which holds that mindful individuals are less inclined to act on urges. By increasing awareness of thoughts and feelings, individuals can identify and manage triggers that lead to impulsive buying. The attentional and emotional regulation components of mindfulness help maintain a balanced state, thereby reducing the likelihood of impulsive buying (Vihari et al., 2022).

## **6.3 The Influence of Impulsive Buying Tendency on BNPL Usage**

Impulsive buying tendency has a significant influence on BNPL usage. Consumers with an impulsive buying tendency are more inclined to use BNPL services for unplanned purchases. These results indicate a significant relationship between impulsive buying tendency and BNPL usage, and support hypothesis H3. The analysis also correlates with previous studies (Kumar & Nayak, 2024; Aina & Chalid, 2023), stating that individuals with a tendency for impulsive shopping possess a positive attitude towards BNPL and use it more frequently. Additionally, these findings indicate that BNPL serves as a means for consumers to satisfy impulsive shopping urges by overcoming short-term financial constraints. Impulsive consumers view BNPL as a way to obtain instant gratification from purchases without waiting for sufficient funds to be available.

## **6.4 The Influence of BNPL Usage on Financial Well-Being**

BNPL usage has a positive, significant impact on financial well-being. However, the direction of the relationship found is positive, contrary to hypothesis H4, which initially predicted a negative relationship. These results are also inconsistent with previous publications by Brüggen et al. (2017), Aisjah (2024), as well as Schomburgk and Hoffmann (2023), indicating that an increase in BNPL usage is associated with a decrease in financial well-being. The difference in results can be explained through several contextual factors. First, the respondents in this study use BNPL in a more planned and responsible manner, which helps them manage cash flow more effectively and contributes to improved financial well-being. Second, within the Muslim community in Indonesia, BNPL might be perceived as a more advantageous financial management option than conventional credit with high interest rates. Third, the sample in this study is dominated by Millennials and Gen X, who are more likely to have better financial literacy, enabling them to use BNPL to enhance their financial well-being strategically.

## **6.5 The Mediating Role of Impulsive Buying Tendency**

Impulsive buying tendency serves as a mediator in the relationship between mindfulness and BNPL usage. Mindfulness has a positive effect on impulsive buying tendency, suggesting that the higher a person's mindfulness, the greater the tendency to engage in impulsive buying. The significant influence of impulsive buying tendency on BNPL usage suggests that individuals with higher impulsive tendencies are more inclined to use BNPL. The analysis shows that the impulsive buying tendency acts as a partial mediator in the relationship between mindfulness and BNPL usage, with the direct relationship between mindfulness and BNPL usage, as well as the indirect relationship through the impulsive buying tendency. These results support hypothesis H5 and correlate with a previous publication by Schomburgk and Hoffmann (2023) that impulsive buying tendency

negatively mediates the relationship between mindfulness and BNPL usage. The study provides further understanding of how mindfulness affects BNPL usage. Specifically, mindfulness can suppress individuals' tendency to shop impulsively, which eventually reduces dependence on BNPL services.

### **6.6 The Moderating Role of Perceived Risk**

The interaction between perceived risk and mindfulness on BNPL usage has a significant positive effect (H6). These results are consistent with those of Juita et al. (2023a), who found that individuals with lower perceived risk are more vulnerable to debt, including BNPL use. Additionally, the study showed that the interaction between perceived risk and mindfulness positively impacted BNPL usage. The interaction between perceived risk and impulsive buying tendency towards BNPL usage did not support the hypothesis (H7). These results indicate that when individuals perceive BNPL as a high-risk option, they tend to be more cautious in using it, despite still having an impulsive urge. Conversely, a lower risk level can increase the likelihood of BNPL use (Juita et al., 2023b).

### **6.7 Managerial Implication**

Practically, this study provides targeted insights for policymakers, BNPL service providers, and individuals in managing personal finances. Based on the descriptive statistics, several items recorded relatively low mean scores, particularly those related to financial mindfulness, risk awareness, and self-control in spending. For example, statements such as “I consider the long-term impact of my purchases” and “I am aware of the risks of using BNPL” showed lower mean values, indicating gaps that managers could address. BNPL providers should design interventions to strengthen these weaker areas.

Evidence from behavioral economics suggests that in-app prompts, such as pop-up notifications showing total outstanding BNPL obligations, alerts when spending exceeds preset budgets, or reminders of upcoming payments, can effectively reduce overspending. Other tools, such as personalized spending dashboards, cooling-off periods before high-value transactions, and goal-setting features in BNPL apps, can enhance self-control and financial mindfulness. These actions should be complemented by collaborations among BNPL providers, government regulators, and financial institutions to ensure that consumers are protected from predatory lending and have a clear understanding of their obligations. Additionally, incorporating mindfulness-based financial education through workshops, gamified budgeting exercises, or short daily reflection prompts in financial apps can help consumers become more aware of their spending behavior and the risks, leading to more deliberate and sustainable financial decisions.

### **6.8 Theoretical Contribution**

This study extends BNPL literature by shifting the analytical focus toward mature cohorts. Millennials and Gen X have been underexplored compared to the predominantly studied Generation Z. By integrating mindfulness theory with models of impulsive buying, perceived risk, and financial well-being, the analysis provides a nuanced explanation of how psychological self-regulation interacts with credit-based payment adoption in financially literate populations. In contrast to previous studies that often treat BNPL as a driver of financial distress, the results suggest that mindfulness can shape BNPL usage in both risk-mitigating and opportunity-leveraging manners, depending on contextual factors such as financial literacy and cultural attitudes toward credit. This integration advances theoretical understanding by connecting cognitive-emotional regulation

mechanisms to generational differences in financial decision-making, providing a foundation for future cross-cohort comparisons in fintech adoption studies.

## **6.9 Limitations**

Although this study has yielded beneficial results, several limitations need to be considered. One limitation is that this study does not categorize respondents by the frequency and magnitude of BNPL usage. This is important, as default cases generally occur among customers with a very high number of BNPL applications. In addition to the absence of respondent categorization by frequency and magnitude of BNPL usage, which is important given that default cases often occur among heavy users, this study has three further limitations. First, the cross-sectional design limits the ability to make causal inferences about relationships between variables. Second, reliance on self-reported data introduces potential biases, such as social desirability and recall error, which may affect response accuracy. Third, the single-country sample (Indonesia) limits the generalizability of the results to other cultural and economic contexts. Future studies could address these limitations by adopting longitudinal or experimental designs, incorporating objective usage data, and conducting cross-country comparative analyses.

## **7. Conclusions**

In conclusion, this study enriched the understanding of BNPL usage among Millennials and Gen X by integrating psychological factors such as mindfulness, impulsive buying tendency, and perceived risk into the analysis of financial decision-making. The results indicated that the role of mindfulness in BNPL adoption was context-dependent, shaped by financial literacy levels and by how individuals perceive BNPL as either a tool for planned spending or a facilitator of impulsive buying. Impulsive buying tendency remained a central behavioral driver, while perceived risk shaped the extent to which mindfulness translates into BNPL usage decisions. These insights suggested that interventions to promote responsible BNPL use should move beyond financial literacy training and incorporate behavioral elements, such as mindfulness-based financial education, risk awareness campaigns, and app-based nudges curbing unplanned spending. Strengthening these aspects could support healthier credit use patterns and enhance financial well-being among mature consumers.

## **8. Recommendation**

Further studies should explore the magnitude and frequency of BNPL usage in more depth. Additionally, a mixed-methods study could be undertaken to examine government policies on BNPL use. Further exploration of related variables and the application of a broader range of methods should yield a more comprehensive understanding of the issues examined.

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## References

- Abed, S. S., & Alkadi, R. S. (2024). Sustainable development through fintech: Understanding the adoption of buy now pay later (BNPL) applications by Generation Z in Saudi Arabia. *Sustainability (Switzerland)*, 16(15). <https://doi.org/10.3390/su16156368>
- Agustin, I. N. (2024). Islamic and conventional stocks: Impact of Russia-Ukraine saga on global commodities. *Jurnal Ekonomi & Keuangan Islam*. <https://doi.org/10.20885/JEKI>
- Aina, Q., & Abdul Chalid, D. (2023). The role of financial literacy and religiosity in the BNPL misuse: the case of Indonesia's generations Y and Z. *THE 10TH INTERNATIONAL ISLAMIC ECONOMIC SYSTEM CONFERENCE 2023*. <http://iecons.usim.edu.my>
- Aisjah, S. (2024). Intention to use buy-now-pay-later payment system among university students: a combination of financial parenting, financial self-efficacy, and social media intensity. *Cogent Social Sciences*, 10(1). <https://doi.org/10.1080/23311886.2024.2306705>
- Antoni, X. (2025). The role of father-child relationship in parental financial teaching and financial behaviour of students. *Journal of Consumer Sciences*, 10(1), 59-77. <https://doi.org/10.29244/jcs.10.1.59-77>
- Ashby, R., Sharifi, S., Yao, J., & Ang, L. (2025). The influence of the buy-now-pay-later payment mode on consumer spending decisions. *Journal of Retailing*, 101(1), 103-119. <https://doi.org/10.1016/j.jretai.2025.01.003>
- Az-Zahrah, N., Junipriansa, D., & Widokarti, J. R. (2025). Determinants of green purchase behaviour of local coffee shop: The moderating impact of price sensitivity. *Journal of Consumer Sciences*, 10(1), 97-117. <https://doi.org/10.29244/jcs.10.1.97-117>
- Bauer, R. A., & Bauer, A. H. (1960). America, "mass society" and mass media. *Journal of Social Issues*, 16(3), 3-66. <https://doi.org/10.1111/j.1540-4560.1960.tb00953.x>
- Bloomberg Technoz. (2024). *Tips bijak menggunakan paylater dari perencanaan keuangan*.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. In *Journal of Personality and Social Psychology*, 84(4), 822-848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Brüggen, E. C., Hogueve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, 79, 228-237. <https://doi.org/10.1016/j.jbusres.2017.03.013>
- Budiman, J., Yodiputra, J., Candy, C., & Agustin, I. N. (2025). How overconfidence and mental accounting influence investments? The moderating role of financial literacy. *Asian Management and Business Review*, 1-18. <https://doi.org/10.20885/AMBR.vol5.iss1.art1>
- Dhendra, T. K. (2020). Does self-esteem matter? A framework depicting role of self-esteem between dispositional mindfulness and impulsive buying. *Journal of Retailing and Consumer Services*, 55. <https://doi.org/10.1016/j.jretconser.2020.102135>
- Elverda, E., Nahdah, T. A., & Hamali, S. (2025). Analysis of factors affecting consumer decision-making on choosing online food delivery in Indonesia. *Journal of Consumer Sciences*, 10(1), 118-144. <https://doi.org/10.29244/jcs.10.1.118-144>
- Eysenck, S. B. G., & Eysenck, H. J. (1978). A dimensional system of personality description. In *@ Psychologic-l Reports* (Vol. 43).
- Felipe, C. M., Roldán, J. L., & Leal-Rodríguez, A. L. (2017). Impact of organizational culture values on organizational agility. *Sustainability (Switzerland)*, 9(12). <https://doi.org/10.3390/su9122354>
- Gawior, B., Polasik, M., & Lluís Del Olmo, J. (2022). Credit card use, hedonic motivations, and impulse buying behavior in fast fashion physical stores during COVID-19: The

- Sustainability Paradox. *Sustainability* (Switzerland), 14(7).  
<https://doi.org/10.3390/su14074133>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152.  
<https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Issue 1, pp. 2-24). Emerald Group Publishing Ltd. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hua, C. (2022). The correlation between mindfulness and impulse buying behavior. In *Business, Economics and Management EDI* (Vol. 2022).
- Issac, A., & Seranmadevi, R. (2024). Revolutionizing financial literacy through exploring influencers' intentions in chatbot-driven financial information dissemination. In *Creating AI Synergy Through Business Technology Transformation* (pp. 159-188). IGI Global. <https://doi.org/10.4018/979-8-3693-4187-2.ch008>
- Juita, V., Pujani, V., Rahim, R., & Rahayu, R. (2023a). The influence pf user's digital financial literacy and perceived risks on Buy Now Pay Later (BNPL) adoption: A gender's perspective. *Advances in Economics, Business and Management Research*, 629-645. [https://doi.org/10.2991/978-94-6463-350-4\\_63](https://doi.org/10.2991/978-94-6463-350-4_63)
- Juita, V., Pujani, V., Rahim, R., & Rahayu, R. (2023b). Understanding impulsive buying behaviour among buy now pay later (BNPL) users and its implication for overconsumption and the envirointment. *Management Analysis Journal*, 12(4). <http://maj.unnes.ac.id>
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of E-Collaboration*, 11(4), 1-10.  
<https://doi.org/10.4018/ijec.2015100101>
- Kumar Gupta, R. (2025). The role of technology in enhancing small business accounting efficiency: A case for cloud-based solutions. *MBA*.
- Kumar, S., & Nayak, J. K. (2024). Understanding the intricacies of risky indebtedness, impulse buying and perceived risk in buy-now-pay-later adoption. *Asia Pacific Journal of Marketing and Logistics*, 36(7), 1697-1716.  
<https://doi.org/10.1108/APJML-08-2023-0759>
- Mappadang, A., Hendryadi, H., Yoewono, H., Elizabeth, E., & Fitriawati, R. (2025). The god locus of financial control, impulsive use of buy-now-pay-later service, and subjective financial well-being among accounting students: the role of social comparison tendencies. *Cogent Social Sciences*, 11(1).  
<https://doi.org/10.1080/23311886.2025.2474192>
- Marheni, D. K., Jenny, J., & Agustin, I. N. (2023). Cryptocurrency decision analysis as an instrument in modern financial markets through investment intention. *Jurnal Manajemen Dan Pemasaran Jasa*, 16(2), 237-254.
- Nam, T. H., & Quan, V. D. H. (2019). Multi-dimensional analysis of perceived risk on credit card adoption. *Studies in Computational Intelligence*, 809, 606-620.  
[https://doi.org/10.1007/978-3-030-04200-4\\_43](https://doi.org/10.1007/978-3-030-04200-4_43)
- Papich, S., Startz, D., Royer, H., Bedard, K., Vazquez-Bare, G., Klinenberg, D., Topper, M., & Cockburn, A. (2022). *Effects of buy now, pay later on financial well-being I am grateful for excellent feedback and guidance from*.
- Pereira, M. C., & Coelho, F. (2019). Mindfulness, money attitudes, and credit. *Journal of Consumer Affairs*, 53(2), 424-454. <https://doi.org/10.1111/joca.12197>
- Powell, R., Do, A., Gengatharen, D., Yong, J., & Gengatharen, R. (2023). The relationship between responsible financial behaviours and financial wellbeing: The case of buy-now-pay-later. *Accounting and Finance*, 63(4), 4431-4451.  
<https://doi.org/10.1111/acfi.13100>
- Schomburgk, L., & Hoffmann, A. (2023). How mindfulness reduces BNPL usage and how that relates to overall well-being. *European Journal of Marketing*, 57(2), 325-359.  
<https://doi.org/10.1108/EJM-11-2021-0923>



- Sekaran and Bogie. (2008). *Research methods for business: A skill-building approach*.
- Tahir, M. S., & Ahmed, A. D. (2021). Australians' financial wellbeing and household debt: A panel analysis. *Journal of Risk and Financial Management*, 14(11). <https://doi.org/10.3390/jrfm14110513>
- Tahir, M. S., Ahmed, A. D., & Richards, D. W. (2021). Financial literacy and financial well-being of Australian consumers: a moderated mediation model of impulsivity and financial capability. *International Journal of Bank Marketing*, 39(7), 1377-1394. <https://doi.org/10.1108/IJBM-09-2020-0490>
- Vihari, N. S., Sinha, N. K., Tyagi, A., & Mittal, S. (2022). Effect of mindfulness on online impulse buying: Moderated mediation model of problematic internet use and emotional intelligence. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1012331>
- Wu, G., & Peng, Q. (2024). Bridging the digital divide: Unraveling the determinants of fintech adoption in rural communities. *SAGE Open*, 14(1). <https://doi.org/10.1177/21582440241227770>
- Yiğit, M. K. (2020). Consumer mindfulness and impulse buying behavior: Testing moderator effects of hedonic shopping value and mood. *Innovative Marketing*, 16(4), 24-36. [https://doi.org/10.21511/im.16\(4\).2020.03](https://doi.org/10.21511/im.16(4).2020.03)