

The Influence of Financial Literacy, Money Attitude, and Self-Control on Financial Distress Through Impulsive Buying as a Mediating Variable Among Paylater Users in Surabaya City

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Keywords:

Financial Literacy, Money Attitude, Self-Control, Financial Distress, Impulsive Buying, Paylater Users

Abstract

This study aims to analyze the influence of financial literacy, money attitude, and self-control on financial distress through impulsive buying as a mediating variable among Paylater users in Surabaya City. The research was conducted to examine whether financial literacy, money attitude, and self-control significantly affect financial distress directly and indirectly through impulsive buying behavior. The study hypothesizes that higher financial literacy and self-control reduce financial distress, while negative money attitudes and impulsive buying tendencies increase financial distress among Paylater users. This research employed a quantitative approach using a causal associative design. Data were collected through questionnaires distributed to Paylater users in Surabaya City using purposive sampling techniques. The respondents consisted of active users of Paylater services who had experience using digital payment and credit facilities. The collected data were analyzed using Structural Equation Modeling (SEM) with Partial Least Squares (PLS) to test the relationships among variables and the mediating effect of impulsive buying. The results indicate that financial literacy and self-control have a negative and significant effect on financial distress, while money attitude and impulsive buying positively influence financial distress. Furthermore, impulsive buying was found to mediate the relationship between financial literacy, money attitude, self-control, and financial distress. Individuals with low financial literacy and weak self-control tend to engage in impulsive buying behavior, which ultimately increases the risk of financial distress. The findings imply that improving financial literacy and strengthening self-control are essential strategies to minimize financial distress among Paylater users. Financial institutions, educational institutions, and policymakers are encouraged to provide financial education programs and promote responsible digital financial behavior. Future studies are recommended to expand the research scope by involving larger populations, additional variables, and different geographical areas to obtain broader insights into consumer financial behavior in the digital era.

INTRODUCTION

The rapid development of financial technology has significantly transformed consumer financial behavior, particularly through the emergence of Buy Now Pay Later (BNPL) or Paylater services. Paylater facilities allow consumers to purchase goods and services instantly while postponing payment to a later period. In Indonesia, the increasing adoption of Paylater services has been driven by the expansion of digital commerce, ease of access to online credit, and changing consumer lifestyles (Otoritas Jasa Keuangan [OJK], 2025). Surabaya, as one of Indonesia's largest metropolitan cities, has experienced substantial growth in digital financial transactions and Paylater usage among young adults and productive-age consumers (Kamil, 2023). Although Paylater services provide convenience and financial flexibility, excessive and uncontrolled usage may lead

to financial distress due to accumulating debt and poor financial management practices (Geslevich Packin, 2023)

Financial distress refers to a condition in which individuals experience difficulty in fulfilling their financial obligations, resulting in financial anxiety, stress, and reduced financial well-being (Prawitz et al., 2006). Previous studies have shown that low financial literacy, poor money attitudes, and weak self-control are major factors influencing financial problems and over-indebtedness (Lusardi & Mitchell, 2007), (Klapper & Lusardi, 2020). In the digital era, the convenience of online shopping platforms and digital lending systems also encourages impulsive buying behavior, which may worsen consumers' financial conditions (Iyer et al., 2020). Therefore, understanding the behavioral and psychological determinants of financial distress among Paylater users becomes increasingly important, especially in urban societies with high digital consumption patterns such as Surabaya.

Several previous studies have examined the relationship between financial literacy and consumer financial behavior. (Lusardi & Mitchell, 2007) explained that financial literacy plays a crucial role in improving financial decision-making and reducing excessive debt behavior. Similarly, (Abdullah et al., 2019) found that financial literacy significantly affects debt management and financial well-being among young workers. Research conducted by (Afrilia et al., 2025) also revealed that individuals with higher financial literacy tend to have lower impulsive buying tendencies. However, other studies indicate that financial literacy alone may not fully prevent consumers from engaging in irrational purchasing behavior, especially in digital consumption environments (Keshari & Tiwari, 2026).

In addition to financial literacy, money attitude has also been recognized as an important determinant of financial behavior. Money attitude reflects individuals' psychological orientation and perceptions toward money, including how money influences lifestyle, social status, and consumption behavior. (ROBERTS & JONES, 2001) stated that individuals with unhealthy money attitudes are more likely to engage in compulsive buying and excessive credit usage. (Hendratmi et al., 2022) further found that negative money attitudes are associated with higher levels of financial distress. In the context of digital lending and Paylater services, consumers with consumptive money attitudes may be more vulnerable to impulsive spending behavior and debt accumulation.

Self-control is another important factor influencing financial decision-making and consumption behavior. According to (Baumeister et al., 2007) self-control refers to the ability of individuals to regulate impulses, emotions, and behavior in order to achieve long-term goals. Individuals with strong self-control are generally more capable of managing spending behavior and avoiding excessive debt. Previous studies also demonstrated that weak self-control significantly increases impulsive buying behavior and financial problems (Rey-Ares et al., 2021). Furthermore, (Wulandari et al., 2025) found that self-control moderates the relationship between Paylater usage and impulsive buying among Indonesian consumers.

Although many studies have investigated financial literacy, money attitude, self-control, and impulsive buying separately, limited research has integrated these variables simultaneously in explaining financial distress among Paylater users, particularly in Indonesia. Previous studies mostly focused on general financial behavior, financial well-being, or impulsive buying without specifically examining the mediating role of impulsive buying in the relationship between financial literacy, money attitude, self-control, and financial distress. Moreover, studies focusing on Paylater users in metropolitan cities such as Surabaya remain relatively limited. This indicates a research

gap regarding how behavioral and psychological factors influence financial distress through impulsive buying behavior in the context of digital lending services.

Based on the research gap, this study aims to analyze the influence of financial literacy, money attitude, and self-control on financial distress through impulsive buying as a mediating variable among Paylater users in Surabaya City. This study seeks to answer whether financial literacy, money attitude, and self-control directly and indirectly affect financial distress through impulsive buying behavior. The novelty of this research lies in the integration of behavioral financial variables and impulsive buying mediation within the context of Paylater usage in Indonesia's urban society. This study is expected to contribute theoretically to the development of behavioral finance literature and practically provide insights for policymakers, financial institutions, and consumers regarding responsible digital financial behavior.

METHODS

This study employed a quantitative research approach using a causal associative design to examine the relationships among financial literacy, money attitude, self-control, impulsive buying, and financial distress among Paylater users in Surabaya City. A quantitative approach was considered appropriate because this study aimed to test hypotheses and analyze the causal relationships between variables through statistical procedures (Sugiyono, 2014). The research focused on identifying both direct and indirect effects of independent variables on financial distress through impulsive buying as a mediating variable.

The population of this study consisted of individuals residing in Surabaya City who actively used Paylater services for online shopping or digital transactions. The respondents were selected using purposive sampling techniques based on several criteria, namely: (1) respondents were at least 17 years old, (2) respondents had actively used Paylater services within the last six months, and (3) respondents had conducted online purchasing transactions using Paylater facilities. The sampling technique was chosen to ensure that the respondents had relevant experience related to digital lending and consumption behavior. The sample size was determined according to the recommendations for Structural Equation Modeling Partial Least Squares (PLS-SEM), which requires an adequate number of observations for model estimation and hypothesis testing (Hair et al., 2021).

Data collection was conducted through an online questionnaire distributed using Google Forms. The questionnaire consisted of two sections: respondent demographic information and measurement items related to the research variables. Financial literacy was measured using indicators adapted from (HUSTON, 2010), (Lusardi & Mitchell, 2007) focusing on knowledge of personal finance, debt management, and financial decision-making. Money attitude was measured using indicators developed by (Yamauchi & Templer, 1982) and (Tang et al., 2020), including dimensions related to power-prestige, retention-time, and anxiety toward money. Self-control was measured using indicators adapted from (Sriyono & Setiawan, 2022) and (Alwakid & Aparicio, 2020), which evaluate the ability to regulate spending behavior and resist impulsive consumption. Impulsive buying indicators were adapted from (Ha et al., 2025) while financial distress was measured using indicators from (Prawitz et al., 2006). All measurement items used a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Before the questionnaire was distributed widely, a pilot test was conducted to ensure the clarity, validity, and reliability of the instrument. The collected data were analyzed using Structural

Equation Modeling with Partial Least Squares (PLS-SEM) through SmartPLS software. PLS-SEM was selected because it is suitable for predictive and exploratory research models involving mediating variables and complex relationships among latent constructs (Hair et al., 2019). The analysis process included outer model evaluation through convergent validity, discriminant validity, and composite reliability testing, followed by inner model evaluation to assess path coefficients, coefficient of determination (R^2), and hypothesis testing. The significance of relationships among variables was examined using bootstrapping procedures with a significance level of 5%.

This research procedure was conducted systematically, starting from problem identification, literature review, instrument development, data collection, data analysis, and interpretation of results. The methods and procedures used in this study were designed to ensure the validity and reliability of findings and allow future researchers to replicate the study in different contexts or populations.

RESULTS AND DISCUSSION

RESULTS

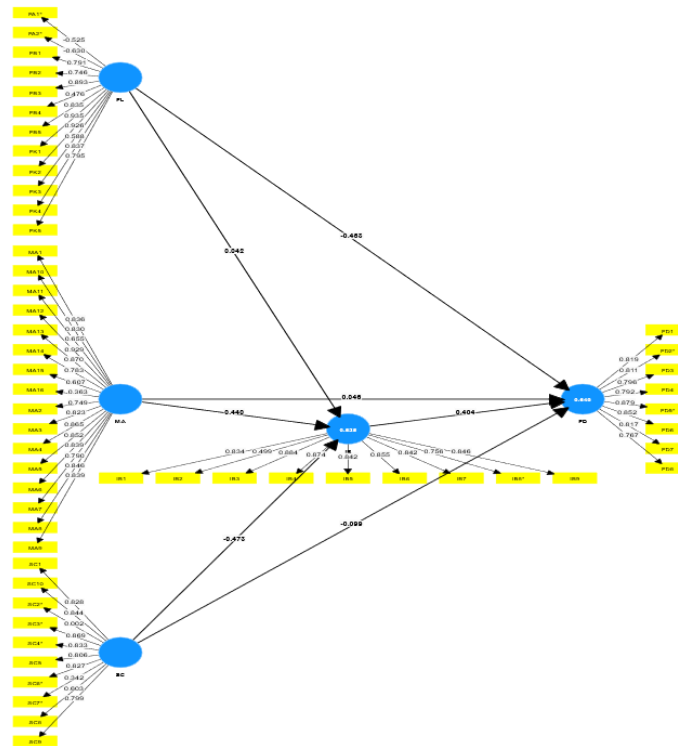


Figure 1: SmartPLS Output

Source: SmartPLS Output – Data Processed by the Researcher, 2026.

Table 1 : Average Variance Extracted (AVE) Test Results

Variabel	Average Variance Extracted (AVE)
Financial Literacy (X1)	0.582
Money Attitude (X2)	0.625
Self-Control (X3)	0.530
Impulsive Buying (Z)	0.658
Financial Distress (Y)	0.668

The AVE values of all variables exceeded 0.5. Therefore, in this aspect, the model passed the convergent validity test.

Table 2 : HTMT Test Results

	Financial Distress	Financial Literacy	Impulsive Buying	Money Attitude	Self Control
Financial Distress					
Financial Literacy	0.668				
Impulsive Buying	0.713	0.371			
Money Attitude	0.611	0.466	0.731		
Self Control	0.638	0.484	0.789	0.641	

All HTMT values were below 0.90, indicating that there was no overlap among constructs and that each variable represented its respective concept distinctly.

Table 3 : Fornell-Larcker Criterion Test Results

	Financial Distress	Financial Literacy	Impulsive Buying	Money Attitude	Self Control
Financial Distress	0.817				
Financial Literacy	-0.654	0.763			
Impulsive Buying	0.662	-0.346	0.811		
Money Attitude	0.584	-0.446	0.692	0.791	
Self Control	-0.595	0.407	-0.708	-0.574	0.728

The values presented on the main diagonal of the table represent the square root of the AVE value for each construct, while the values outside the diagonal indicate the strength of the correlation between one construct and another. To satisfy this criterion, each diagonal value must be higher than all correlation values within the same row and column. Based on the results shown in the table, all constructs in the model successfully met the required criterion, indicating that each latent variable was able to measure its respective concept exclusively without overlapping measurement with other latent variables in the model.

Table 4 : Reliability Test Results

	<i>Cronbach's alpha</i>	<i>Composite reliability (rho_a)</i>	<i>Composite reliability (rho_c)</i>
Financial Distress	0.929	0.935	0.941
Financial Literacy	0.820	0.957	0.899
Impulsive Buying	0.932	0.938	0.944
Money Attitude	0.957	0.965	0.963
Self Control	0.871	0.918	0.907

All three reliability indicators tested, namely Cronbach's Alpha, rho_a, and rho_c, produced values above 0.70 for all constructs without exception, indicating that the measurement instrument used was capable of generating stable and consistent results.

Table 5 : R Square and Adjusted R Square Values

Variabel	R Square	R Square Adjusted
Financial Distress (Y)	0,456	0,445
Impulsive Buying (Z)	0,433	0,425

The R² value of 0.456 indicates that the independent variables in the model, namely Financial Literacy, Money Attitude, and Impulsive Buying, explain 45.6 percent of the variance in Financial Distress (Y). The remaining 54.4 percent is influenced by factors outside the model, including income, financial self-efficacy, hedonic lifestyle, and peer influence. The adjusted R² value of 0.445 further confirms the explanatory power of the model after accounting for the number of variables and sample size.

For the Impulsive Buying variable (Z), the R² value of 0.433 indicates that Financial Literacy (X1), Money Attitude (X2), and Self-Control (X3) explain 43.3 percent of its variance. The remaining 56.7 percent is affected by variables not included in the model, such as social media usage intensity, hedonic motivation, and the influence of digital advertising.

Table 6: Effect Size Test Results (f²)

	Financial Distress	Impulsive Buying
Financial Literacy	0,095	0,001
Impulsive Buying	0,091	-
Money Attitude	0,113	0,242
Self Control	0,025	0,309

In terms of their contribution to Financial Distress, all predictors showed relatively small yet meaningful effect sizes. Money Attitude had the largest contribution (f² = 0.113), followed by Financial Literacy (f² = 0.095), Impulsive Buying (f² = 0.091), and Self-Control with the smallest contribution (f² = 0.025).

In contrast, regarding Impulsive Buying, Financial Literacy showed almost no effect (f² = 0.001), while Money Attitude (f² = 0.242) and Self-Control (f² = 0.309) demonstrated strong effect sizes. These findings indicate that Self-Control was the most dominant factor influencing Impulsive Buying behavior among PayLater users in this study.

Table 7 : Goodness of Fit Test Results

Variabel	R Square	AVE
Financial Distress (Y)	0,456	0,732
Impulsive Buying (Z)	0,433	0,709
Rata-Rata	0,445	0,721
GoF = $\sqrt{(0,721 \times 0,445)} = \sqrt{0,321} = 0,566$		

The Goodness of Fit (GoF) test was conducted to evaluate the overall quality of the model in terms of both measurement and predictive capability. The average AVE value of 0.721 indicates that the indicators explained more than 72% of the construct variance, while the average R² value of 0.445 shows that the independent variables explained 44.5% of the variation in the dependent variables.

The resulting GoF value was 0.566, which exceeded the substantial threshold of 0.36. Therefore, the model can be considered to have a strong overall fit and is appropriate for hypothesis testing.

Table 8 : Direct Effect Test Results

Path	Original Sample	T Statistic	P Value	Description
FL → FD	-0.241	4.145	0.000	Significant
MA → FD	0.283	4.814	0.000	Significant
SC → FD	-0.143	2.19	0.029	Significant
FL → IB	-0.024	0.419	0.675	Not Significant
MA → IB	0.38	8.299	0.000	Significant
SC → IB	-0.452	8.312	0.000	Significant
IB → FD	0.295	4.099	0.000	Significant

1. Financial Literacy → Financial Distress: Negative and significant relationship, indicating that better financial knowledge reduces financial distress among PayLater users. H1 accepted.
2. Money Attitude → Financial Distress: Positive and significant relationship, meaning that more permissive attitudes toward debt increase financial distress. H2 accepted.
3. Self-Control → Financial Distress: Negative and significant relationship, indicating that higher self-control contributes to better financial stability. H3 accepted.
4. Financial Literacy → Impulsive Buying: No significant relationship was found, indicating that financial literacy did not directly reduce impulsive buying behavior. H4 rejected.
5. Money Attitude → Impulsive Buying: Positive and significant relationship, showing that individuals who associate money with freedom and status are more likely to engage in impulsive buying. H5 accepted.
6. Self-Control → Impulsive Buying: Negative and significant relationship with the strongest coefficient in the model, making self-control the most dominant factor influencing impulsive buying behavior. H6 accepted.
7. Impulsive Buying → Financial Distress: Positive and significant relationship, indicating that impulsive buying through PayLater worsens financial conditions over time. H7 accepted.

Table 9 : Indirect Effect Result

Mediation Path	Original Sample	P Value	Description
FL → IB → FD	-0.007	0.678	Not Significant
MA → IB → FD	0.112	0.001	Significant
SC → IB → FD	-0.133	0.000	Significant

1. Financial Literacy → Impulsive Buying → Financial Distress: The indirect effect was not significant, indicating that Impulsive Buying did not mediate the relationship between Financial Literacy and Financial Distress. H8 rejected.
2. Money Attitude → Impulsive Buying → Financial Distress: The indirect effect was significant, indicating that Impulsive Buying partially mediated the relationship between Money Attitude and Financial Distress. H9 accepted.
3. Self-Control → Impulsive Buying → Financial Distress: The indirect effect was significant and the strongest among all mediation paths, indicating that low self-control increased Financial Distress both directly and indirectly through Impulsive Buying. H10 accepted.

DISCUSSION

1. The Effect of Financial Literacy on Financial Distress

The evidence from this study confirms that financial knowledge functions as a financial shield. PayLater users in Surabaya with better Financial Literacy were proven to experience lower financial pressure. The average Financial Literacy index of respondents was 126.1 (moderate), while Financial Distress reached 136.4 (moderate but higher), reflecting a situation in which “adequate” financial knowledge has not fully protected respondents from financial pressure.

The BLCH framework (H. M. Shefrin & Thaler, 1988) explains this mechanism well: financially literate individuals develop more accurate mental accounting, enabling them to distinguish between productive and consumptive credit. (Lusardi & Mitchell, 2007) consistently demonstrated that higher Financial Literacy reduces the tendency to use high-cost credit and lowers the risk of debt accumulation leading to Financial Distress. These findings imply that more substantial improvements in Financial Literacy could potentially reduce Financial Distress more significantly.

2. The Effect of Money Attitude on Financial Distress

An individual’s orientation toward money turns out to be a strong determinant of whether they become trapped in Financial Distress. This study found a positive and significant effect of Money Attitude on Financial Distress: the more permissive an individual’s attitude toward debt and the stronger the perception of money as a status symbol, the greater the financial pressure experienced. The average Money Attitude index was 135.6, the highest among the predictors and corresponding with Financial Distress at a moderate yet evident level (136.4).

The Theory of Planned Behavior (Ajzen, 1991) explains this mechanism: individuals who perceive debt as normal evaluate digital credit usage positively and build spending intentions beyond their actual financial capacity. (Hendratmi et al., 2022) proved that the “freedom” and “power” dimensions of Money Attitude positively and significantly influence Financial Distress; (Klapper & Lusardi, 2020) and (Kasoga & Tegambwage, 2024) confirmed similar findings.

3. The Effect of Self-Control on Financial Distress

Self-Control was proven to have a negative and significant effect on Financial Distress, although with a smaller coefficient compared to other variables. The Self-Control index value was 124.4, the lowest among all predictors, emphasizing that this is the most vulnerable aspect within the profile of the PayLater users studied. When Self-Control was low and Financial Distress remained at a moderate level, the resulting pattern was consistent with a negative relationship: weak self-control was associated with difficulties in controlling consumption and ultimately led to financial pressure.

Self-Control Theory (Baumeister et al., 2007) explain that individuals with low Self-Control fail to consider the cumulative impact of PayLater installments, causing them to become trapped in increasingly severe Financial Distress. (Gathergood, 2012) confirmed the same pattern.

4. The Effect of Financial Literacy on Impulsive Buying

The most surprising finding of this study was the insignificant effect of Financial Literacy on Impulsive Buying ($p = 0.675$). Although the direction was negative as theoretically expected, the effect size was extremely small ($f^2 = 0.001$), making the relationship statistically unmeasurable. The disparity between the Financial Literacy index (126.1) and the Impulsive Buying index (140.3), which did not move in opposite directions, reflects a deeper phenomenon: financial knowledge does not automatically translate into controlled purchasing behavior.

The BLCH framework (Shefrin & Thaler, 1988) offers an explanation: the PayLater mechanism separates the timing of purchase from the timing of payment, systematically disconnecting financial knowledge from purchasing behavior. (Prelec & Loewenstein, 1998) referred to this phenomenon as the reduced “pain of paying,” which can weaken even financially knowledgeable individuals’ self-control. (Annisa et al., 2025) and (Naatu et al., 2024) confirmed that digital platform design factors are more dominant in determining Impulsive Buying than the level of Financial Literacy.

5. The Effect of Money Attitude on Impulsive Buying

Money Attitude was proven to be one of the strongest predictors of Impulsive Buying (path coefficient = 0.380, $p = 0.000$). Individuals who view money as a means of freedom, status, and self-expression tend to evaluate shopping activities positively and develop strong impulsive buying intentions, especially when PayLater eliminates the barrier of immediate payment (Bauer & Mitev, 2012). The average Money Attitude index was the highest (135.6), corresponding with the highest Impulsive Buying index in the model (140.3), illustrating a strong positive relationship.

(Hasil et al., n.d.) demonstrated that the power-prestige and spending tendency dimensions of Money Attitude significantly and positively influence chronic impulse buying. (Kumar & Nayak, 2024) and (Abrantes-Braga & Veludo-de-Oliveira, 2020) confirmed similar patterns across various consumer credit contexts.

6. The Effect of Self-Control on Impulsive Buying

With the largest path coefficient in the model (-0.452 , $p = 0.000$), Self-Control was the strongest predictor of Impulsive Buying. The striking gap between the lowest Self-Control index (124.4) and the highest Impulsive Buying index (140.3), even exceeding Financial Distress (136.4), visually and empirically illustrates how weak Self-Control is strongly inversely related to the intensity of Impulsive Buying.

Self-Control Theory (Jost & Andrews, 2012) accurately predicts that individuals with low Self-Control tend to act based on immediate impulses, characteristics highly vulnerable to

exploitation by PayLater features offering painless purchases without immediate payment. (Iyer et al., 2020) confirmed through meta-analysis that Self-Control is the most consistent negative predictor of Impulsive Buying. (Hendri & Sudarmilah, 2024) validated the same pattern among BNPL users in Indonesia.

7. The Effect of Impulsive Buying on Financial Distress

Impulsive Buying was proven to have a positive and significant effect on Financial Distress (path coefficient = 0.295, $p = 0.000$): the higher the Impulsive Buying behavior, the greater the Financial Distress experienced. The Impulsive Buying index value (140.3), which was higher than Financial Distress (136.4), indicates that the accumulation of impulsive behavior through PayLater temporally precedes and drives the formation of financial pressure.

The BLCH framework (H. Shefrin, 2002) (Hendri & Sudarmilah, 2024) explains that every impulsive PayLater transaction adds burden to an individual's mental accounting system; when this cumulative burden exceeds repayment capacity, Financial Distress becomes unavoidable. (Hendratmi et al., 2022) consistently confirmed this positive association, while (Goyal & Kumar, 2021) and (Abrantes-Braga & Veludo-de-Oliveira, 2020) specifically validated it in the context of digital credit.

CONCLUSION

This study concludes that Financial Literacy, Money Attitude, Self-Control, and Impulsive Buying play important roles in explaining Financial Distress among PayLater users in Surabaya City. Financial Literacy and Self-Control were found to negatively and significantly influence Financial Distress, indicating that individuals with better financial knowledge and stronger self-regulation tend to experience lower financial pressure. In contrast, Money Attitude and Impulsive Buying positively and significantly affected Financial Distress, suggesting that permissive attitudes toward money and uncontrolled purchasing behavior increase the likelihood of financial difficulties.

The study also found that Financial Literacy did not significantly influence Impulsive Buying, indicating that financial knowledge alone is insufficient to suppress impulsive consumption behavior in the context of digital credit services. Meanwhile, Money Attitude and Self-Control significantly influenced Impulsive Buying, with Self-Control emerging as the strongest predictor in the model. Furthermore, Impulsive Buying significantly mediated the relationships between Money Attitude and Financial Distress as well as between Self-Control and Financial Distress. However, Impulsive Buying failed to mediate the relationship between Financial Literacy and Financial Distress.

The findings contribute to the development of behavioral finance literature by integrating Financial Literacy, Money Attitude, Self-Control, Impulsive Buying, and Financial Distress within the context of PayLater usage. This research highlights that psychological and behavioral factors are highly influential in shaping consumer financial outcomes in the digital lending era. Practically, the findings imply that financial education programs should not only focus on improving financial knowledge but also emphasize self-control and responsible consumption behavior. Policymakers, financial institutions, and digital platform providers are encouraged to strengthen consumer protection and promote healthier financial behavior among PayLater users.

This study has several limitations. First, the research was limited to PayLater users in Surabaya City, which may restrict the generalizability of the findings to other regions or demographic

groups. Second, the study used a cross-sectional design, making it unable to capture changes in financial behavior over time. Third, several external variables such as income level, peer influence, financial self-efficacy, lifestyle, and social media exposure were not included in the model.

Future studies are recommended to involve broader and more diverse populations across different regions in Indonesia. Further research may also include additional behavioral and psychological variables, such as financial self-efficacy, financial anxiety, hedonic lifestyle, and social influence, to provide a more comprehensive understanding of Financial Distress in the digital finance era. Longitudinal approaches are also suggested to better examine the dynamics of PayLater usage and consumer financial behavior over time.

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