

The Role of Financial Literacy and Self-Control in Managing Students' Consumptive Behavior with PayLater Usage Decisions as a Mediating Variable

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Abstract

This study investigates the influence of Financial Literacy on Consumptive Behavior among students, with PayLater Usage as an intervening variable and Self-Control as a moderating variable. The rapid adoption of digital credit services, such as PayLater, has reshaped consumption patterns, particularly among young users, by promoting convenience and flexible payment options. This research aims to understand how financial literacy and self-control interact to influence students' consumption behavior through PayLater usage. Using Structural Equation Modeling (SEM) with a sample of 100 students from the Faculty of Economics and Business at Universitas Teknologi Sumbawa, the study finds that Financial Literacy has a positive influence on both PayLater Usage and Consumptive Behavior. Interestingly, while financial literacy is generally expected to mitigate consumptive tendencies, it indirectly contributes to impulsive spending by encouraging the use of PayLater. PayLater Usage is identified as an intervening variable that strengthens the relationship between Financial Literacy and Consumptive Behavior, highlighting the role of convenience and perceived purchasing power in promoting consumption. Moreover, Self-Control negatively moderates the relationship between PayLater Usage and Consumptive Behavior, indicating that students with high self-control are less likely to exhibit impulsive spending despite using PayLater.

Keywords | financial literacy, paylater usage, self control, consumptive behavior.

INTRODUCTION

Financial literacy plays a crucial role in influencing how individuals, including students, manage their finances and make financial decisions (Fornero & Lo Prete, 2023). Financial literacy encompasses understanding how to manage income, save, invest, and use credit wisely (Lusardi & Mitchell, 2023). In the context of PayLater usage, which is a buy now, pay later (BNPL) service, adequate financial knowledge can reduce the tendency for individuals to fall into excessive consumptive behavior (Ridhayani & Johan, 2020)

PayLater offers convenience by allowing consumers to shop without upfront payment, enabling users to defer payment until the end of the month or to pay in installments over several months (Salsabilla et al., 2024). Although this service provides shopping flexibility (Alcazar & Bradford, 2021), individuals with limited financial knowledge are at high risk of neglecting their ability to pay installments or balance their financial budget (Foster et al., 2022). Low financial literacy often results in users failing to recognize additional costs, such as interest or late payment penalties, associated with PayLater usage, thereby worsening their personal financial situation.

Conversely, individuals with strong financial knowledge tend to be more cautious in using PayLater. They are likely to analyze their financial capability before utilizing the service, assess risks, and only use the facility when necessary or when confident in their



ability to repay within the stipulated time frame. Thus, financial literacy can mitigate excessive consumptive behavior, as financially literate users are more rational and planned in their shopping habits (Castro-González et al., 2020), even when easy access to credit services like PayLater is available.

While financial literacy is essential, self-control also plays a significant role in determining whether PayLater usage fosters consumptive behavior (Bai, 2023). Self-control refers to an individual's ability to regulate impulses and resist the temptation of impulsive purchases (Almeida et al., 2021). Users with low self-control are more likely to use PayLater for impulsive shopping without considering their future repayment ability. The ease of access to credit services like PayLater, which enables purchases without immediate payment, often encourages individuals with poor self-control to spend more than they should.

In contrast, individuals with high self-control are more prudent in using PayLater. They can resist impulsive purchases despite the convenience of installment payments or deferred payment options. They are also more likely to limit the use of such services to essential needs, taking into account their personal budget. In this context, self-control acts as a moderator that weakens the relationship between PayLater usage and consumptive behavior. This means that even if someone uses PayLater, strong self-control can suppress consumptive impulses and promote healthier financial management.

Students, as part of the digital generation growing within a rapidly evolving technological ecosystem, experience significant shifts in consumption behavior. We Are Social and Hootsuite, in their 2023 annual report, noted that Indonesia has more than 210 million active internet users, with the majority aged 16–24 years (Social & Hootsuite, 2024). Students, being part of this age group, spend an average of 5 hours daily online, primarily on e-commerce platforms and social media, which drives them to shop online more frequently.

According to a survey by the Financial Services Authority (OJK), financial literacy among Indonesian students remains low, with a financial literacy score of only 65.43% in 2024 (Otoritas Jasa Keuangan (OJK), 2024). Poor understanding of financial management, budgeting, and credit risk makes students more vulnerable to excessive consumptive behavior. Students often use "buy now, pay later" services like PayLater without considering their ability to repay in the future, potentially leading to financial problems.

Furthermore, the World Economic Forum (WEF) highlights that young people in the digital era are more exposed to promotions through social media, where influencers and lifestyle trends play a major role in purchase decisions (World Economic Forum, 2019). Social media platforms, such as Instagram and TikTok, often showcase attractive promotional content that influences students to shop more, particularly with the ease of digital payment options like PayLater.

The phenomenon of consumptive behavior among students is exacerbated by low financial literacy and self-control. While digital technologies like PayLater simplify access to goods and services, the inability to manage finances wisely makes students more susceptible to wastefulness and future financial issues. Therefore, it is essential to enhance

financial literacy and self-control among students so they can use digital financial technologies more wisely and responsibly.

Hypotheses

Financial literacy plays a critical role in helping individuals control their spending and suppress consumptive behavior, particularly in impulsive purchasing. Previous studies indicate that individuals with higher financial literacy are more rational in making financial decisions and managing their consumption (Lusardi & Mitchell, 2023)

H1: Financial literacy has a significant negative influence on students' consumptive behavior.

Students with better financial literacy are more likely to understand how to manage their finances, including recognizing the importance of avoiding debt and excessive spending. Research shows that strong financial literacy leads to more prudent financial decision-making, which directly reduces tendencies toward consumptive behavior (Lusardi & Mitchell, 2023)

However, while students with higher financial literacy tend to manage their money wisely, the availability of services like PayLater can weaken this effect. The convenience offered by PayLater services, such as deferred payments and credit card-free installments, often triggers consumptive behavior, especially among students influenced by social media promotions. These services create an illusion of greater purchasing power than users actually have at the time of the transaction, thereby encouraging unplanned purchases (Guttman-Kenney et al., 2023).

The use of PayLater can neutralize or even reverse the positive effects of good financial literacy. Although students may understand financial risks, the allure and ease of using PayLater can lead them to take unanticipated financial risks, such as overspending or failing to repay debts on time. Ultimately, PayLater usage exacerbates consumptive behavior, counteracting the financial knowledge students possess (Lin et al., 2020; Liu & Zhang, 2021).

H2: The decision to use PayLater services has a positive influence on students' consumptive behavior.

H3: The decision to use PayLater mediates the relationship between financial literacy and students' consumptive behavior.

PayLater services provide convenience for students to make instant purchases without the need for immediate payment. Features such as installments and deferred payments often encourage impulsive and consumptive behavior, as users perceive greater financial flexibility. This poses a risk of students falling into debt if not accompanied by proper financial planning (Guttman-Kenney et al., 2023; Liu & Zhang, 2021).

Self-control is the ability of an individual to resist impulses or desires that could lead to impulsive decisions. Students with high levels of self-control are better able to resist the temptation of overusing PayLater services. They tend to be more mindful of the long-term consequences of their actions, such as the risk of debt or the inability to pay future



installments. Therefore, students with higher self-control are less likely to engage in consumptive behavior, even when using PayLater services (Hira, 2012).

For students with low self-control, PayLater usage is more likely to increase consumptive behavior, as they are less likely to consider the long-term financial impacts of their purchasing decisions. They may be enticed by promotions or easy installment offers displayed on social media, which can lead to impulsive buying.

On the other hand, students with high self-control are better equipped to assess risks before deciding to use PayLater. They are less prone to taking unnecessary financial risks, thereby weakening the negative influence of PayLater usage on consumptive behavior. In this context, self-control acts as a "guardrail" that prevents students from falling into unhealthy consumptive habits, even when using PayLater services (Hira, 2012).

H4: Self-control moderates the relationship between PayLater usage and students' consumptive behavior, where high self-control weakens the influence of PayLater usage on consumptive behavior.

METHOD

The population in this study consists of students from the Faculty of Economics and Business at Universitas Teknologi Sumbawa who use PayLater services. The sampling technique employed is purposive sampling, with the criteria being students who have used PayLater services and conducted transactions using PayLater within the past three months. The total sample size for this study is 100 respondents. The sample size was calculated using Paul Leedy's formula as follows:

$$n = \left(\frac{Z}{e}\right)^2 (p)\left(1 - \frac{1}{p}\right)$$
$$n = \left(\frac{1,96}{0,1}\right)^2 (0,5)\left(1 - \frac{1}{0,5}\right) = 96,04 \text{ (rounded up to 100)}$$

The type of data used in this study is quantitative data, which can be measured or calculated directly. Quantitative data consists of information or explanations expressed in numbers or numerical form (Sugiyono, 2016). The data source employed in this research is primary data, which refers to data recorded and collected directly by the researcher for the first time. In this study, primary data were obtained through the distribution of questionnaires to respondents, specifically PayLater users. The questionnaire responses were measured using a Likert scale ranging from 1 to 5.

The data analysis technique employed in this study is Structural Equation Modeling (SEM) with Partial Least Squares (PLS). The testing steps are as follows (Ghozali, 2014):

1. Designing the Inner Model

This step involves specifying the relationships between latent variables, including direct and indirect effects.

2. Designing the Outer Model

This step focuses on determining the relationships between latent variables and their indicators, ensuring the validity and reliability of the measurement model.

3. Model Evaluation

This step assesses both the inner and outer models to ensure they meet the necessary statistical criteria, such as construct validity, reliability, and goodness-of-fit.

4. Hypothesis Testing

The final step involves testing the proposed hypotheses to determine the significance and strength of the relationships between variables.

RESULTS AND DISCUSSION

Designing the Inner Model

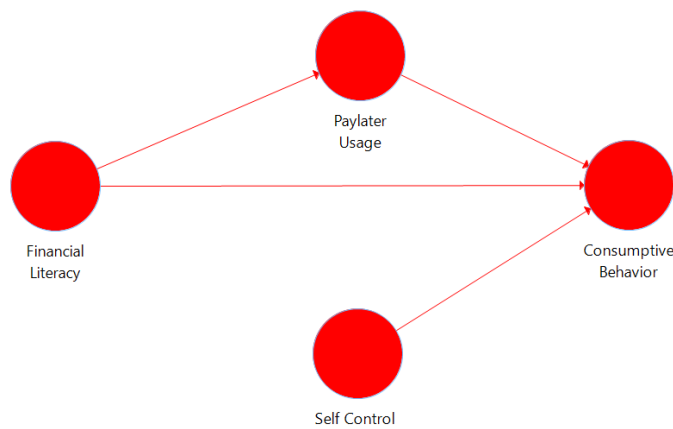


Figure 1. Inner Model

Designing the Outer Model

The indicators used in this study are reflective indicators, as shown in the figure below.

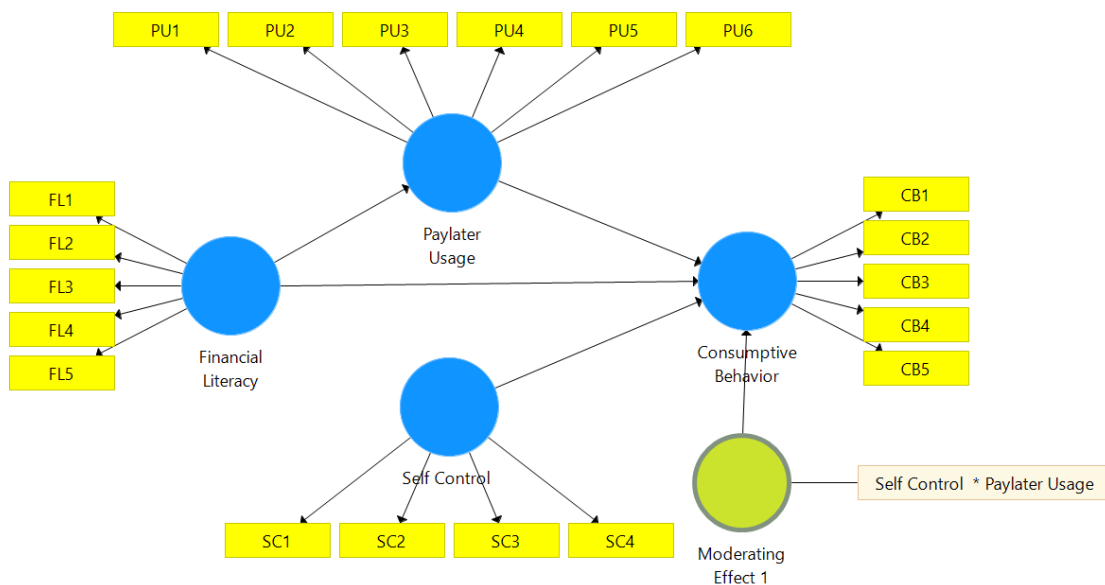


Figure 2. Outer Model



Model Evaluation

The outer model assesses the reliability and validity of the research variables. The criterion for a good reflective indicator is a convergent validity correlation value greater than 0.70. However, values between 0.50 and 0.60 can still be considered acceptable for models in the developmental stage (Chin, 1998).

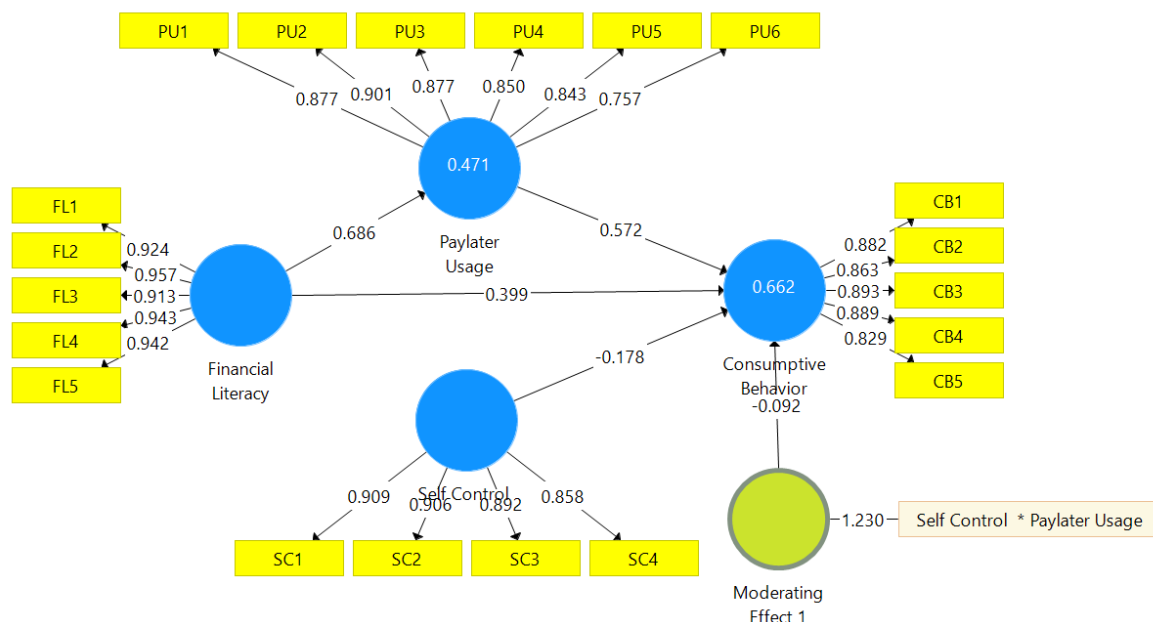


Figure 3. Result

The results of discriminant validity in the model can be observed through the cross-loading values, as shown below:

Table 1. Discriminant Validity

Indicator	Financial Literacy	PayLater Usage	Self-Control	Consumptive Behavior
FL1	0.924	0.629	0.677	0.639
FL2	0.957	0.680	0.709	0.645
FL3	0.913	0.649	0.711	0.692
FL4	0.943	0.642	0.697	0.623
FL5	0.942	0.609	0.698	0.661
PU1	0.574	0.877	0.526	0.689
PU2	0.628	0.901	0.618	0.703
PU3	0.541	0.877	0.579	0.646
PU4	0.523	0.850	0.438	0.631
PU5	0.575	0.843	0.603	0.653
PU6	0.656	0.757	0.709	0.572
SC1	0.662	0.614	0.909	0.514
SC2	0.709	0.682	0.906	0.604
SC3	0.650	0.602	0.892	0.404
SC4	0.629	0.576	0.858	0.409

Indicator	Financial Literacy	PayLater Usage	Self-Control	Consumptive Behavior
CB1	0.651	0.711	0.605	0.882
CB2	0.648	0.600	0.460	0.863
CB3	0.579	0.679	0.471	0.893
CB4	0.592	0.639	0.468	0.889
CB5	0.564	0.691	0.412	0.829

Based on Table 1 above, the indicators FL1, FL2, FL3, FL4, and FL5 exhibit higher correlations with the construct Financial Literacy (FL) compared to their correlations with the constructs Consumptive Behavior (CB), PayLater Usage (PU), and Self-Control (SC). Similarly, the correlations of each indicator with its respective construct are higher than the correlations of the same indicators with other constructs.

Another method to assess discriminant validity is by examining the value of the Average Variance Extracted (AVE). An AVE value greater than 0.50 indicates that the construct in the study is valid (Gana & Broc, 2019).

Table 2. Average Variance Extracted (AVE)

Construct	AVE	Status AVE > 0,50
Financial Literacy (FL)	0.876	Valid
Consumptive Behavior (CB)	0.760	Valid
PayLater Usage (PU)	0.726	Valid
Self-Control (SC)	0.794	Valid

In addition to testing construct validity, construct reliability testing is also necessary by examining the values of composite reliability and Cronbach's alpha. Data is considered to have good reliability if the values of composite reliability and Cronbach's alpha are greater than 0.70 (Ghozali, 2014). The results are as follows:

Table 3. Reliability Test

Construct	Cronbach Alpha	Composite Reliability	Status > 0,70
Financial Literacy (FL)	0.965	0.940	Reliable
Consumptive Behavior (CB)	0.921	0.972	Reliable
PayLater Usage (PU)	0.924	0.941	Reliable
Self-Control (SC)	0.915	0.939	Reliable

After evaluating the outer model, the next step is to evaluate the inner model. A structural model with an R-Square value greater than 0.67 is considered strong, an R-Square



value greater than 0.33 is considered moderate, and an R-Square value greater than 0.19 is considered weak (Ghozali, 2014).

Table 4. R-Square

Construct	R-Square	Status
Consumptive Behavior (CB)	0.647	Moderate
PayLater Usage (PU)	0.465	Moderate

Predictive relevance (Q-Square) is used to validate the model. The Q-Square predictive relevance is considered good if its value is greater than 0, indicating that the model has predictive relevance. Conversely, a Q-Square value less than 0 suggests that the model lacks predictive relevance. The Q-Square value ranges between 0 and 1 ($0 < Q^2 < 1$), where values closer to 1 indicate a better model. Based on Table 4 above, the Q-Square predictive relevance for this research model can be calculated, with the results as follows:

$$\begin{aligned}
 Q^2 &= 1 - (1-R_1^2)(1-R_2^2) \\
 &= 1 - (1-0.647)(1-0.465) \\
 &= 1 - (0.353)(0.535) \\
 &= 1 - 0.188 \\
 &= 0.8115 \text{ (81.15\%)}
 \end{aligned}$$

Hypothesis Testing

The test statistic used is the t-statistic, with a t-table value (at a 5% significance level) of 1.986. The research hypothesis is considered significant if the t-statistic value is greater than 1.986. The results are as follows:

Table 5. Direct Effect

Construct	Original Sample	T Statistics	Status T Statistics > 1.986
Financial Literacy → Consumptive Behavior	0.399	3.042	Significance
Financial Literacy → PayLater Usage	0.686	10.087	Significance
Moderating Effect → Consumptive Behavior	-0.092	2.342	Significance
PayLater Usage → Consumptive Behavior	0.572	5.606	Significance

The research findings indicate that Financial Literacy has a positive influence on students' Consumptive Behavior, which contradicts the general literature asserting that financial literacy helps control consumptive behavior (Lusardi and Mitchell, 2023). One possible explanation for this result is the phenomenon of overconfidence, where students with high financial literacy may become overly confident in their financial management

abilities, leading them to take greater risks, such as impulsive spending or utilizing digital credit services like PayLater (Guttman-Kenney et al., 2023).

The research findings indicate that Financial Literacy positively influences PayLater Usage among students. This is because higher financial literacy enables students to understand how digital credit services like PayLater operate, including features such as installment plans, deferred payments, and interest rates. This understanding often increases their confidence in using PayLater as a tool to meet their consumption needs, whether for academic purposes or lifestyle demands. However, high financial literacy does not always equate to prudent financial management. Students with strong financial literacy may view PayLater as a flexible solution to manage expenses, for example, by taking advantage of promotions or discounts offered on e-commerce platforms. This aligns with the findings of Guttman-Kenney et al. (2023), which suggest that understanding credit mechanisms can encourage the use of debt-based services if individuals feel confident in managing the associated risks.

PayLater Usage has a positive influence on students' Consumptive Behavior. This is due to the nature of PayLater services, which offer the convenience of shopping without immediate payment, such as installment options without a credit card and deferred payments. These features create an illusion of greater purchasing power than the user actually possesses. This convenience often drives students to make impulsive purchases, especially when exposed to promotions on e-commerce platforms and social media, which amplify their consumptive tendencies. Moreover, students tend to utilize PayLater to fulfill lifestyle needs influenced by social trends and peer pressure, assuming they will be able to manage future payments. Unfortunately, this behavior can increase the risk of financial problems, such as uncontrollable debt or late payments. These findings are consistent with Liu and Zhang (2021), who stated that digital credit services like PayLater can exacerbate consumptive tendencies if not accompanied by self-control and proper financial planning.

Self-control moderates the relationship between PayLater Usage and Consumptive Behavior with a negative influence. This finding indicates that students with high levels of self-control are better able to manage the convenience and allure of PayLater services, thereby reducing the likelihood of impulsive and consumptive purchasing behavior. Strong self-control enables students to consider the long-term financial consequences of their purchases, such as the risk of debt or the inability to meet installment payments. Students with good self-control are less likely to be influenced by promotions or social pressure, as they prioritize financial stability over short-term gratification.

Conversely, students with low self-control are more vulnerable to the temptations of PayLater services, making them more prone to impulsive purchases and poor financial decisions. This supports the idea that self-control acts as a "buffer" that weakens the positive relationship between PayLater Usage and Consumptive Behavior. When self-control is high, the financial risks associated with using credit services like PayLater can be significantly mitigated, encouraging healthier spending habits and financial discipline. These findings align with prior research, such as Hira (2012), which highlights the critical role of self-control in regulating financial behavior, especially when individuals have access to



convenient credit options. Therefore, enhancing self-control among students is a key strategy to mitigate the consumptive risks associated with PayLater usage.

The Sobel test result of $4.901 > 1.986$ indicates that PayLater Usage mediates the relationship between Financial Literacy and Consumptive Behavior among students. Students with higher financial literacy tend to understand the mechanics of PayLater and use it to manage expenses, such as taking advantage of installment plans or promotions. However, PayLater usage also increases the likelihood of consumptive behavior due to the ease of deferred or installment payments, which can trigger impulsive purchases.

These findings highlight the need for financial literacy that includes an understanding of the risks associated with digital credit services and the importance of self-control. As noted by Guttman-Kenney et al. (2023) and Liu and Zhang (2021), digital credit platforms can exacerbate consumptive tendencies without adequate self-control and financial planning. Therefore, a holistic approach is essential to ensure that students use PayLater responsibly.

CONCLUSION

This study found that Financial Literacy has a positive influence on PayLater Usage and Consumptive Behavior among students. While financial literacy is generally expected to help individuals manage their finances wisely, the findings indicate that higher financial literacy actually encourages the use of PayLater, which subsequently increases consumptive behavior. This is due to the convenience of PayLater features, such as installment plans without credit cards and deferred payments, which create an illusion of greater purchasing power and drive impulsive buying.

Additionally, PayLater Usage was found to be an intervening variable that strengthens the relationship between Financial Literacy and Consumptive Behavior. Students with higher financial literacy are more likely to use PayLater to meet their consumption needs; however, this increases the risk of consumptive behavior, especially when not accompanied by sufficient self-control. The results also demonstrate that Self-Control moderates the relationship between PayLater Usage and Consumptive Behavior with a negative influence, where students with high levels of self-control are better able to manage their use of PayLater responsibly, thereby reducing the risk of excessive consumption.

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