

Testing the Role of Financial Literacy on the Effect of Perceived Utilitarian Value and Perceived Hedonic Value on Impulsive Buying Behavior in Paylater Users in Greater Jakarta

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ABSTRACT

The development of financial technology has driven the emergence of various innovations in digital financial services, one of which is the Buy Now, Pay Later (BNPL) or PayLater service. This service offers convenience and payment flexibility through installment schemes integrated with e-commerce platforms and other applications. In Indonesia, PayLater has experienced significant growth, supported by the large number of e-commerce users and increasing financial inclusion. However, this convenience also raises concerns about impulsive buying behavior (IBB), which is influenced by perceived utilitarian value (PUV) and perceived hedonic value (PHV). On the other hand, the level of financial literacy (FLI) in Indonesia has not fully kept up with the growth of financial inclusion. Therefore, this study aims to examine the influence of PUV and PHV on IBB, as well as to evaluate the role of FLI as a mediating and moderating variable. Data were collected from 350 PayLater users in the Greater Jakarta area (Jabodetabek) and analyzed using the Structural Equation Modeling (SEM) approach through SmartPLS 4.0. The results show that both PUV and PHV significantly influence IBB. However, FLI does not serve as either a mediator or a moderator in these relationships. These findings indicate that the convenience and enjoyment provided by PayLater services continue to encourage impulsive behavior, even among users with a strong level of financial literacy.

Keywords: PayLater, financial literacy, impulsive buying behavior..

1. INTRODUCTION:

The development of digital technology in recent years has revolutionized the financial services sector, with financial technology (fintech) as an innovative solution that offers convenience, efficiency, and flexibility in financial transactions. (K K & Bhowmik, 2023; Stojanović et al., 2021). One of the fintech products that has increased in popularity is the buy now, pay later (BNPL) or PayLater service. PayLater allows consumers to buy goods or services without direct payment, but through an installment scheme that is easily accessible through the application. (Batubara, 2021; Fernandi et al., 2023; Surjandy et al., 2023).

The use of PayLater is already widely used globally, which can be seen from the prediction that the PayLater market in e-commerce will grow by almost 70% between 2024 and 2030 (GlobalData, 2025). This rapid growth is one of the reasons for the benefits felt by users, such as 54% of users who feel more helped to manage their finances when using PayLater. (Paysafe Group, 2024). The trend of using PayLater has also developed in Indonesia since 2018, which is marked by the emergence of the PayLater feature on Traveloka. (Ramadhani, 2021). After Traveloka, various platforms began to adopt PayLater, with Shopee PayLater currently being the most popular in Indonesia (Databoks, 2023).

In addition, the integration between PayLater and e-commerce provides convenience for users. (Feng et al., 2023; Fernandi et al., 2023), which is reflected in the strength of the e-commerce market, which is in line with the large number of PayLater Indonesian users in Southeast Asia. By 2024, Indonesia will lead the e-commerce market in Southeast Asia with 99.1 million users, far outperforming other countries such as Singapore, which has only 4.9 million users. (Statista, 2024). In line with that, Indonesia has become a significant market for PayLater services in Southeast Asia, with the largest number of PayLater users in Asia reaching 18.7 million people. (Statista, 2022).

However, behind this convenience, studies show that PayLater users tend to experience an increase in spending of up to 11.2% due to a reduced perception of financial limitations. (Maeng et al., 2023). This raises concerns about impulse buying behaviors triggered by perceived utilitarian value (PUV), such as PayLater's integration with e-commerce, and emotional perceived hedonic value (PHV), such as reduced perception of financial limitations from using PayLater. Then, the motivation to use PayLater can encourage impulsive buying behavior (IBB) due to internal motivations, such as economic conditions and personal pleasure. (Nicholas et al., 2023). In addition, external factors, such as the perception of ease and usability of the PayLater service (Djamhari et al., 2024; Prawira et al., 2024).

On the other hand, financial inclusion in Indonesia shows rapid development, characterized by increasing public access to various formal financial services such as savings, credit, insurance, and digital payments. (Sapre, 2023). Indonesia's financial inclusion index will reach 75.02% in 2024 (OJK, 2025), reflects that most people have been actively using financial services. However, this has not been fully offset by increased understanding. The financial literacy index is still at the number 65,43% (OJK, 2025), shows the gap between use and understanding. This means that many people use financial products and services, including PayLater, without sufficient knowledge about the benefits, risks, and how to manage them.

Then, there was a previous study that examined the influence of PUV and PHV on IBB on consumers who made online purchases, showing a positive relationship. (Lavuri, 2023; Lavuri et al., 2022, 2023). However, although several studies have discussed the influence of financial knowledge, experience, and skills on consumer decision-making (Bhat et al., 2024; Kumar et al., 2023; Qomariyah et al., 2022) There are still a few studies that specifically examine the role of FLI in bridging or influencing the relationship between PUV and PHV to IBB (Nurhaliza, 2025).

Therefore, this study will explore the role of financial literacy (FLI) both as a mediating and moderating variable between PUV and PHV on IBB. By examining the role of mediation, this study can identify the role of FLI in bridging PUV and PHV when influencing IBB. Meanwhile, testing as a moderation variable will show the role of FLI in strengthening or weakening the influence of PUV and PHV on IBB, or even not acting as a mediator or moderator.

2. RESEARCH METHODS

This study is a descriptive-associative study with a quantitative approach that aims to test the role of financial literacy (FLI) as a mediating and moderating variable on the influence of perceived utilitarian value (PUV) and perceived hedonic value (PHV) on impulsive buying behavior (IBB) in the context of digital transactions using PayLater. Descriptive research is used to understand the existence of variables individually or in groups, while associative approaches are used to look at relationships or influences between variables. (Creswell & Creswell, 2018). The unit of analysis in this study is PayLater users, with primary data collected through a survey using a questionnaire distributed to respondents in a systematic, cross-sectional manner, i.e., at a point in time, to identify relationships between variables in the population. (Wang & Cheng, 2020).

Variable operationalization is the process of defining research variables in detail so that they can be measured or observed clearly. (Sekaran & Bougie, 2016). In this study, there are four variables that are analyzed for their influence, namely perceived utilitarian value, perceived hedonic value, financial literacy, and impulsive buying behavior. The researcher uses indicators for each variable based on references from several academic journals as a reference to formulate indicators. (Sugiyono, 2017).

The type of data used in this study is quantitative data. Quantitative data consists of numerical values that are included in the statistical measurement scale. This study uses two data sources, namely primary data and secondary data. Primary data is data obtained through questionnaires given to respondents according to the research subject. (Sugiyono, 2017). Meanwhile, secondary data is data obtained from literature reviews, government publications or agencies, books, journals, and the internet. (Sekaran & Bougie, 2016). Secondary data in this study were obtained from several previous studies, previous academic journals, survey results, and data from institutional bodies.

This study used a literature review and a questionnaire to collect data. Literature studies are carried out to obtain theoretical foundations from various sources, such as books, journals, articles, and online media. (Creswell & Creswell, 2018). The questionnaire was compiled by the researcher and distributed to respondents who had made digital transactions using PayLater, with the self-administered method, which means that respondents filled it out independently. The measurement scale used is the 5-point Likert scale because it is easy to understand and simplifies the data processing process. (Sugiyono, 2017).

The population in this study includes individuals who have transacted digitally using PayLater, with samples obtained through purposive sampling techniques, namely the selection of respondents based on certain criteria. (Sugiyono, 2017). This technique is used to ensure that respondents are relevant to the research objectives. The criteria set are users of the PayLater service. The determination of the sample count refers to Gefen et al., (2000), namely at least 10 times the number of variable indicators. With 24 indicators, the minimum number of samples used is 240 respondents.

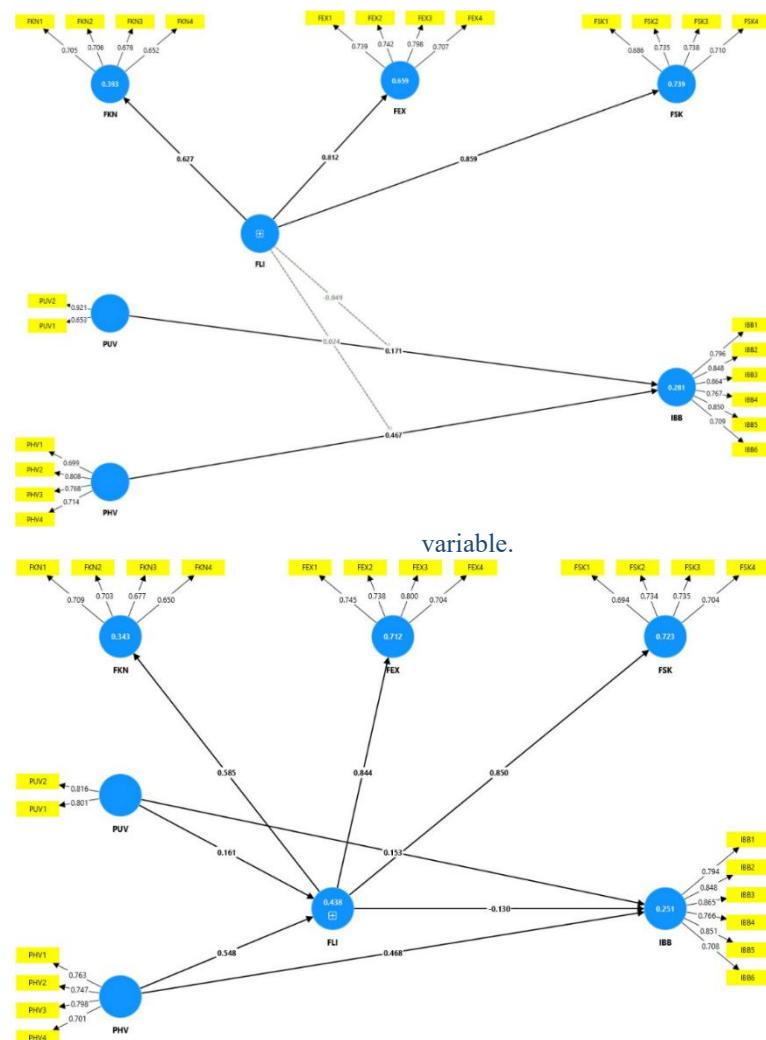
The Structural Equation Modeling (SEM) analysis method is the method used in this study. SEM is a multivariate technique that can analyze the complex relationships of variables. Multivariate analysis is the application of statistical methods to analyze several research variables simultaneously. (Hair et al., 2019). In this study, the SEM method to be used is an SEM-PLS approach. There are two stages of evaluation carried out, namely the evaluation of the outer model and the inner model. The evaluation of the outer model shows how each indicator is connected to the latent variable. Meanwhile, the internal evaluation of the model specifies the relationship between latent variables that can be evaluated by looking at the value of the determination coefficient (R-squared) and the effect size of the F-squared Effect Size. (Cohen, 2013).

3. RESULTS AND DISCUSSION

This study conducted a data collection process for one week in June 2025 using an online questionnaire method using the Microsoft Form platform distributed through Facebook and WhatsApp. Of the 396 respondents who filled out the questionnaire, 393 of them admitted to having used PayLater, and 350 of them lived in Greater Jakarta. Therefore, the profile of the respondents, which totals 350 people, is in accordance with the research criteria, namely PayLater users who live in Greater Jakarta.

Of the total 350 respondents, the majority were in the age group of 18-27 years (67%) and female (71%). Most respondents work in the private sector (62%), with the majority using PayLater once a month (28%). The average PayLater transaction was in the range of IDR 200,001 – IDR 400,000 and IDR 400,001 – IDR 600,000 (24%). The main reason for using PayLater is the need for quick purchases (216 respondents), followed by the desire to take advantage of discounts and promos (196 respondents). The most widely used PayLater platform is ShopeePay (303 respondents), followed by Kredivo (70 respondents) and Akulaku (55 respondents). Based on the results of the SEM-PLS analysis, an evaluation of the outer model was obtained in the following image.

Results of SmartPLS 4.0 Research Model Outer (Mediation)



This study uses 24 indicators. In the PUV variable, there are 2 indicators, PHV has 4 indicators, IBB there are 6 indicators, and FLI, which is divided into 3 dimensions, namely financial knowledge (FKN), financial experience (FEX), and financial skill (FSK), with each dimension consisting of 4 indicators.

The evaluation of the outer model is carried out in two ways, as described by Hair et al. (2019). First, by assessing validity through convergent validity and discriminant validity of indicators. Second, by checking reliability using composite reliability and Cronbach's

alpha. Convergent validity refers to the correlation between an indicator's score and a latent variable's score, while discriminant validity measures the extent to which a latent variable can predict an indicator in its own block compared to an indicator in another block. Reliability indicates the extent to which measurement results using a particular tool can be trusted.

Convergent validity refers to the degree of conformity between an indicator and a latent variable whose validity can be assessed with an outer loading value and an Average Variance Extracted (AVE) greater than 0.5 (Hair et al., 2019). In this study, all outer loading values were greater than 0.5, so they were declared valid. However, there is an invalid AVE value in the financial literacy

			Mediation		Moderation	
Variable	Dimension	Question Items	Outer Loading	Information	Outer Loading	Information
Perceived		PUV1	0.801	VA LI D	0.653	VA LI D

Utilitarian Value		PU V2	0.816	VA LI D	0.921	VA LI D
Perceived Hedonic Value		PH V1	0.763	VA LI D	0.699	VA LI D
		PH V2	0.747	VA LI D	0.808	VA LI D
		PH V3	0.798	VA LI D	0.768	VA LI D
		PH V4	0.701	VA LI D	0.714	VA LI D
Impulsive Buying Behavior		IBB 1	0.794	VA LI D	0.796	VA LI D
		IBB 2	0.848	VA LI D	0.848	VA LI D
		IBB 3	0.865	VA LI D	0.864	VA LI D
		IBB 4	0.766	VA LI D	0.767	VA LI D
		IBB 5	0.851	VA LI D	0.850	VA LI D
		IBB 6	0.708	VA LI D	0.709	VA LI D
Financial Literacy	Financial Knowledge	FK N1	0.709	VA LI D	0.705	VA LI D
		FK N2	0.703	VA LI D	0.706	VA LI D
		FK N3	0.677	VA LI D	0.676	VA LI D
		FK N4	0.650	VA LI D	0.652	VA LI D
	Financial Experience	FEX 1	0.745	VA LI D	0.739	VA LI D
		FEX 2	0.738	VA LI D	0.742	VA LI D

		FEX 3	0.800	VA LI D	0.798	VA LI D
Financial Skill		FEX 4	0.704	VA LI D	0.707	VA LI D
		FSK 1	0.694	VA LI D	0.686	VA LI D
		FSK 2	0.734	VA LI D	0.735	VA LI D
		FSK 3	0.735	VA LI D	0.738	VA LI D
		FSK 4	0.704	VA LI D	0.710	VA LI D

	Mediation		Moderation	
Variabel	AVE	Information	AVE	Information
Perceived Utilitarian Value	0.653	VALID	0.637	VALID
Perceived Hedonic Value	0.567	VALID	0.560	VALID
Impulsive Buying Behavior	0.652	VALID	0.652	VALID
Financial Literacy	0.309	INVALID	0.309	INVALID

Then, discriminant validity is carried out to test the extent to which a construct differs from other constructs. This test consists of a Cross-Loading test seen from the correlation between the indicator and its variable is greater than the indicator on other variables, the Fornell-Larcker test which is seen from the square root value of AVE of each construct is greater than the correlation between other constructs, and the Heterotrait-Monotrait Ratio (HTMT) test which is seen from the HTMT value of each variable pair is less than 0.90 in order to be fulfilled. (Hair et al., 2019). The results of this study show that the variables and indicators have met the cross-loading test and the Fornell-Larcker test. However, the HTMT value is not all less than 0.90. Thus, it can be concluded that the evaluation of discriminant validity through HTMT testing has not been fulfilled.

Cross-Loading	Mediation	Moderation
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Variabe 1	P U V	P H V	IB B	FL	P U V	P H V	IB B	FL
PUV1	0.801	0.505	0.210	0.476	0.653	0.497	0.209	0.462
PUV2	0.816	0.521	0.408	0.349	0.921	0.526	0.408	0.334
PHV1	0.488	0.763	0.255	0.555	0.459	0.699	0.249	0.538
PHV2	0.508	0.747	0.473	0.382	0.493	0.808	0.473	0.355
PHV3	0.510	0.798	0.329	0.529	0.487	0.768	0.328	0.503
PHV4	0.406	0.701	0.396	0.486	0.431	0.714	0.396	0.471
IBB1	0.307	0.406	0.794	0.249	0.340	0.433	0.796	0.237
IBB2	0.349	0.396	0.848	0.263	0.364	0.416	0.848	0.246
IBB3	0.399	0.429	0.865	0.207	0.419	0.445	0.864	0.190
IBB4	0.256	0.329	0.766	0.074	0.268	0.357	0.767	0.059
IBB5	0.306	0.448	0.851	0.225	0.033	0.459	0.850	0.211
IBB6	0.209	0.291	0.708	0.195	0.232	0.307	0.709	0.190
FKN1	0.123	0.140	0.108	0.434	0.114	0.134	0.108	0.459
FKN2	0.074	0.062	0.015	0.423	0.058	0.051	0.015	0.458
FKN3	0.096	0.101	0.010	0.392	0.085	0.087	0.010	0.419
FKN4	0.095	0.095	-0.080	0.347	0.095	0.079	-0.080	0.374

FEX1	0.473	0.612	0.283	0.550	0.451	0.602	0.282	0.512
FEX2	0.337	0.483	0.141	0.671	0.318	0.462	0.141	0.657
FEX3	0.390	0.595	0.261	0.662	0.358	0.586	0.261	0.631
FEX4	0.430	0.534	0.267	0.624	0.421	0.533	0.267	0.606
FSK1	0.358	0.501	0.247	0.651	0.341	0.492	0.247	0.639
FSK2	0.288	0.341	0.13	0.626	0.238	0.324	0.130	0.635
FSK3	0.278	0.262	0.054	0.609	0.256	0.246	0.055	0.625
FSK4	0.177	0.190	0.005	0.542	0.157	0.165	0.005	0.560

Fornell-Lacker	Mediation				Moderation				
	Variabe 1	P U V	P H V	IB B	FL I	P U V	P H V	IB B	FL I
PUV	0.808					0.798			
PHV	0.635	0.753				0.621	0.748		
IBB	0.384	0.481	0.807			0.410	0.505	0.807	
FLI	0.509	0.650	0.252	0.555		0.454	0.599	0.236	0.556

Heterotrait-Monotrait Ratio (HTMT)				
Variabel	PUV	PHV	IBB	FLI
PUV				
PHV	1.075			
IBB	0.580	0.583		

FLI	0777	0.778	0.307	
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The last external model evaluation is a reliability test. This test is to measure indicators that perform measurements on constructs that are bound to each other. The Reliability

Test can be seen through the composite reliability value and Cronbach's alpha greater than 0.70. In this study. There is a variable that is not reliable in the Cronbach's alpha test because it has a value of 0.469, which is in the PUV variable. Meanwhile, all variables met the composite reliability test.

	Mediation					Moderation			
	Variabe 1	Cronbach' s Alpha	Informatio n	Composit e Reliability	Informatio n	Cronbach' s Alpha	Informatio n	Composit e Reliability	Informatio n
PUV	0.469	Not Reliable	0.790	Reliable	0.469	Not Reliable	0.774	Reliable	
PHV	0.744	Reliable	0.840	Reliable	0.744	Reliable	0.835	Reliable	
IBB	0.892	Reliable	0.918	Reliable	0.892	Reliable	0.918	Reliable	
FLI	0.791	Reliable	0.837	Reliable	0.791	Reliable	0.839	Reliable	

Furthermore, an internal model evaluation was carried out to determine the pattern of the relationship between the research variables by looking at Collinearity Assessment/ Variance Inflation Factor (VIF), Coefficient of Determination (R-Square), Effect Size (F-Square), Predictive Relevance (Q-Square), and Path Coefficient. Collinearity Assessment is the first step in determining the level of collinearity. The expected value is a Variance Inflation Factor (VIF) value less than 5. The results of this study showed that all the relationships tested did not occur collinearly because they had a VIF value of less than 5.

Mediation			Moderation		
List	BRI GH T	Inform ation	List	BRI GH T	Inform ation
PUV -> IBB	1.72 1	No Collon uity	PUV -> IBB	1.66 6	No Collon uity
PHV -> IBB	2.20 9	No Collon uity	PHV -> IBB	2.07 4	No Collon uity
FLI -> IBB	1.77 9	No Collon uity	FLI PUV BWI -> IBB	3.75 7	No Collon uity
PHV -> FLI	1.67 5	No Collon uity	FLI PHV BWI -> FLI	4.03 0	No Collon uity
PUV -> FLI	1.67 5	No Collon uity			

The Coefficient of Determination (R-Square) is used to measure how robustly a structural model can predict endogenous latent variables based on exogenous latent variables. The R-Square value indicates how large the proportion of variance of endogenous variables can be explained by the model. The assessment of the R-Square value is divided into three categories, namely: values between 0.25 to 0.49 are categorized as weak, values between 0.50 to 0.74 are considered moderate or moderate, and values above 0.75 indicate strong predictive power. This study found that in the mediation model, the R-Square value for the FLI variable of 0.438 showed a weak influence of PUV and PHV. Meanwhile, the R-Square value for IBB of 0.251 also showed a weak influence of the three variables in the mediation model. In the moderation model, the R-Square value of 0.281 indicates a weak influence of PUV, PHV, and FLI on IBB.

R-Square	Mediation	Moderation
FLI	0.438	-
IBB	0.251	0.281

Effect size or F-Square is used to measure how much each latent variable contributes to the observed variable in a structural model. The value of F-Square helps evaluate the strength of influence of each construct individually. The interpretation of the F-Square value consists of four categories, namely values below 0.02 indicate no influence, values between 0.02 to 0.14 indicate a small influence, values between 0.15 to 0.34 indicate moderate influence, and values above 0.35 indicate a large influence. In the results of this study, it was found that the F-Square value for PUV against IBB was 0.024, which is included in the category of small influence. The F-Square value for PHV against IBB is 0.146, which is just above the upper limit of the small influence category.

Meanwhile, the F-Square value for FLI against IBB was 0.013, which is included in the no-affect category. Thus, PHV contributes a relatively greater effect than the other two variables to IBB, although it is still within a small influence limit.

F-Square	Mediation				Moderation			
	PUV	PHV	IBB	FLI	PUV	PHV	IBB	FLI
PUV			0.018	0.027			0.024	
PHV			0.132	0.319			0.146	
IBB								
FLI			0.013				0.013	

Q-Square is tested to make predictions based on data not used in the model's estimation. When the accuracy of the model prediction is high, then the use of an absolute value is necessary in the estimation of the model. If the value of $Q\text{-Square} > 0$, it can be concluded that the path model's prediction is relevant to a particular dependent construct. In this study, the Q-Square result on the financial literacy variable was 0.118, and on the impulsive buying behavior variable was 0.157, which was greater than zero (0). Therefore, it can be concluded that there is relevance of the path model prediction to the dependent construct.

Q-Square	Variabel	Q-Square
Mediation & Moderation	Financial Literacy	0.118
	Impulsive Buying Behavior	0.157

The last test in the evaluation of the outer model is the path coefficient, which aims to test the relationship of the structural model, which is the basis for testing the hypothesis in this study. The parameters in this test are that the T-Statistics value must be greater than 1.96 and the P-value must be less than 0.05. In this study, it was seen that the relationship between PUV and PHV to IBB was positively accepted, while the role of FLI in mediating and moderating the relationship between PUV and PHV to IBB was rejected because the value did not meet the requirements.

Moderation				
Hypothesis	List	T statistics	P values	Information

H1	PUV \rightarrow IBB	2.076	0.038	Accepted
H2	PHV \rightarrow IBB	6.890	0.000	Accepted
H6 (Moderation)	PUV \rightarrow FLI \rightarrow IBB	1.444	0.149	Rejected
H7 (Moderation)	PHV \rightarrow FLI \rightarrow IBB	1.693	0.091	Rejected

Mediation				
Hypothesis	List	T statistics	P values	Information
H1	PUV \rightarrow IBB	2.076	0.038	Accepted
H2	PHV \rightarrow IBB	6.890	0.000	Accepted
H3	FLI \rightarrow IBB	1.759	0.079	Rejected
H4	PHV \rightarrow FLI	9.329	0.000	Accepted
H5	PUV \rightarrow FLI	2.805	0.005	Accepted
Mediation	PUV \rightarrow FLI \rightarrow IBB	1.444	0.149	Rejected
Mediation	PHV \rightarrow FLI \rightarrow IBB	1.693	0.091	Rejected

Conclusions and Suggestions

Based on the results of the analysis in this study, which tested PayLater users in Greater Jakarta, it can be concluded that there is a relationship between PUV and PHV with IBB. This is because PayLater provides utilitarian benefits, as it is able to help consumers manage their finances more flexibly, allowing payments to be delayed without disrupting routine expenses. This service also offers a fast transaction process so that consumers feel efficiency and convenience when shopping. In addition, the existence of this relationship is also caused by emotional values, such as the feeling of happiness due to the practical transaction process and the feeling of calm due to payment flexibility, thus creating emotional comfort when shopping. This sense of calm arises because consumers feel unburdened by direct payments that have the potential to disrupt financial stability.

Although financial literacy (FLI) can improve an individual's ability to manage finances, this study shows that FLI does not have a significant influence on impulsive buying behavior (IBB), either directly, through

mediation, or moderation. This is because IBB is more influenced by emotional and practical factors such as perceived utilitarian value (PUV) and perceived hedonic value (PHV), which more deeply influence impulse purchase decisions. Even if one has good financial literacy, the convenience and fun provided by services like PayLater can still trigger unplanned purchases. Therefore, although financial literacy plays an important role in financial management, psychological, emotional, and convenience factors encourage impulsive buying, and still have a greater influence in this context.

Based on the results of the study, which show that FLI does not play a role as a mediator or moderator of the relationship between PUV, PHV, and IBB, a number of suggestions can be given. For readers, it is advisable to be aware that the emotional and comfort factors offered by services such as PayLater can influence impulse purchase decisions, even if they already have good financial

literacy. For PayLater users, it is recommended that they stay wise in their shopping by taking advantage of the due reminder feature and managing finances better, thereby reducing the risk of late payments and impulse purchases.

Advice is also provided for PayLater service providers, such as the implementation of notification features or automatic usage limits that can warn users when they are approaching spending limits or when impulsive shopping patterns are detected. Researchers are further advised to expand the scope of the research area and integrate qualitative approaches, such as interviews or FGDs, to explore personal motivations. For policymakers, it is advisable to push for regulations that require PayLater providers to provide clear information about hidden fees and interest, as well as set minimum age and monthly income limits for users to prevent financial problems and excessive debt..

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