

The “Buy Now, Pay Later” Payment System’s Role in Triggering Impulse Buying with Self-Control as Moderation

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Abstract. Buy Now Pay Later (Paylater) is a popular payment method in Indonesia that allows consumers to purchase items and pay later in installments, similar to credit cards. Various fintech platforms like GoPay, OVO, Kredivo and Dana offer Paylater services, which are widely integrated into e-commerce platforms to simplify transactions. Paylater provides flexibility that often leads to impulse buying driven by hedonic motivations, which may result in excessive consumption and debt. This study examines the impact of Paylater and hedonic motivation on online impulse buying and assesses the moderating role of self-control in this relationship. This study was using a descriptive quantitative approach with 450 respondents surveyed, and data analysis was conducted via SEM and PLS software. The results show that the availability and hedonic motivation significantly influence impulse buying online, with self-control acting as a significant moderator in these relationships.

Keywords: Buy Now Pay Later, Online Impulse Buying, Hedonic Motivation, Self-Control, Fintech Platforms.

1 Introduction

The development of information and communication technology has had a significant impact on the financial sector through finance technology (fintech), which provides various services such as payment channel systems, digital banking, online digital insurance, peer-to-peer lending, and crowdfunding. Currently one of the popular services in peer-to-peer lending is Buy Now-Pay Later, or called Paylater, which allows consumers on a limited budget to buy goods or services first and pay them later, similar to a credit card but with easier terms and conditions [1]. Various fintech platforms and digital wallets (e.g., GoPay, OVO, Kredivo, Home Kredit, and Dana), as well as e-commerce platforms such as Traveloka and Shopee, have integrated with the Paylater service to make it easier to pay and provide instant financing options [2], [3].

Paylater services offer convenience and speed in payments, making it easier for shoppers to spend more than they need that potentially leading to overconsumption and debt [4], [5]. The availability of Paylater payments can push impulse buying because consumers feel they own a lot of funds to spend [6], [7]. Impulse buying is often driven by hedonistic motivation, and emotions, with attractive website design and availability of payment options stimulating behavior [8], [9]. However, self-control plays an important role in reducing impulse buying that helps consumers oppose temptation directly and creates purchase decisions more wisely [10], [11], [12].

A previous study has proven that Paylater services are tightly related to e-commerce and online shopping that significantly increase impulse buying because of convenient access to credits and delayed payments [13], [14]. Besides that, motivation plays an important role in the use of Paylater service and impulse buying behavior because there exists encouragement to reach satisfaction and joy [15], [16], [17].

Research conducted by [8] shows that perceived ease of use, perceived usefulness, and benefits offered by Paylater trigger impulse buying. Self-control is possible to reduce the negative impact of using Paylater and hedonic motivation on impulse buying, which helps consumers withhold temptation and manage their finances better [18], [19], [20].

This study aims to analyze the influence of the availability of Paylater as a payment method and hedonic motivation on online impulse buying, as well as propose self-control as a moderating variable in the relationship between hedonic motivation, Paylater usage, and online impulse buying.

2. Literature Review

2.1 Buy Now, Pay Later

Buy Now, Pay Later allows consumers to buy goods or services and pay in short-term installments without interest, though longer terms may include interest. This service, often provided by third parties and integrated into online shopping, is popular due to its convenience and flexibility as an alternative to credit cards or conventional loans, despite potential late fees [22]. Paylater emphasizes convenience, flexibility, and comfort compared to conventional credit cards. This service offers greater ease and accessibility, making it an appealing alternative to credit cards, which require more complex application and authentication processes. Paylater is considered beneficial because it is possible to purchase quickly without spending existing funds, provide reserve funds for emergencies, and also offer facilities in addition to a period of free interest or a rewards program [22].

Paylater also provides a benefit program, which covers incentives, rewards, or service-purposeful additions to increase experience and satisfaction of customers as well as push loyalty [23]. Examples include gifts, discounts, free products, points, and other special benefits [24]. In Paylater services, benefits include interest-free periods for full payment within a certain timeframe, discounts and cashback through merchant partnerships, fee waivers, and loyalty programs where users can exchange points for various benefits. These features are designed to attract and retain customers, driving adoption and engagement.

2.2 Hedonic Motivation

Hedonic motivation relates to the influence of pleasure and pain receptors on a person's willingness to achieve goals or avoid threats. This principle suggests that people approach pleasure and avoid pain. Hedonic motivation involves behaviors that increase positive experiences and reduce negative ones. The term "hedonic," from the Greek word meaning "sweet," relates to pleasure and includes the pursuit of enjoyment, such as purchasing goods. It is an important factor in influencing consumer behavior [16], [17].

2.3 Self-Control

Self-control is the ability to regulate and change responses to achieve long-term goals and increase desired behavior while avoiding undesirable behavior [25], [26]. There are three main types of self-control: impulsive control, which is the ability to manage impulses without thinking about the consequences; emotional control, namely the ability to regulate emotional responses to avoid overreactions and bad moods; and movement control, namely the ability to control when and how the body moves to avoid anxiety. People who are able to control themselves show great will and personal control, do not act impulsively, and can regulate their emotions and actions effectively [27].

2.4 Impulse Buying

Impulse buying is the act of consumers buying products or services suddenly and without planning, driven by emotions, feelings, and stimuli [28], [29]. Stern identifies four types of impulse buying: pure, reminder, suggestive, and planned. Pure happens because of an emotional trigger; reminders happen when consumers remember running out of stock or advertisement promotions; suggestive happens in the moment when consumers see products and are aware needs; and planning happens when consumers enter shops with a purchase list but also intend to buy based on promotion [29], [30]. However, online payment platforms such as Paylater service can facilitate the fourth type of impulse buying [8].

2.5 Relationship of Buy Now Pay Later with online impulse buying

Paylater services are closely related to impulse buying behavior, especially online through e-commerce. The increased transactions using Paylater align with more impulse buying [14]. The availability of Paylater in online retail can lead to unplanned and spontaneous purchases by offering deferred payment and easy credit access [7], [8]. Paylater encourages impulse buying through convenience, benefits, and rewards [8]. Therefore, we propose the following hypothesis:

H1: The availability of Paylater as an alternative payment has a significant effect on online impulse buying.

2.6 The relationship between hedonic motivation and online impulse buying

Hedonic motivation significantly influences Paylater usage and online impulse buying. Paylater users often show higher purchase intentions, reflecting the strong link between hedonic aspects of online shopping and Paylater usage [15]. Hedonic motivation drives impulse buying for immediate satisfaction [17] and can enhance life satisfaction [31]. Paylater's features, like

convenience and instant gratification, align with hedonic motivation [8], [15]. We propose the following hypothesis:

H2: Consumer hedonic motivation has a significant effect on the use of Paylater services as an alternative payment.

H3: Consumer hedonic motivation has a significant effect on online impulse buying.

2.7 The Relationship between Self-Control and Buy Now Pay Later, Hedonic Motivation, and Impulse Buying

Self-control is crucial in managing Paylater usage, hedonic motivation, and impulse buying behavior. While Paylater services are attractive for their convenience and flexibility [32], self-control, which involves regulating emotions, thoughts, and impulses [27], helps individuals delay gratification for long-term goals. Financial self-control aids in saving money and reducing impulsive consumption [18], [19] and is linked to good financial management [20]. Therefore, self-control moderates the relationship between hedonic motivation, Paylater usage, and impulse buying behavior.

H4: Self-control moderates the relationship between consumers' hedonic motivation and use of Paylater services.

H5: Self-control moderates the relationship between the use of Paylater services and consumers' online impulse buying.

H6: Self-control moderates the relationship between hedonic motivation and consumers' online impulse buying.

3. Research Method

A questionnaire with two main sections was used to collect data for this research. The first section addressed socio-demographic characteristics, including gender, age, occupation, monthly expenditure, and frequency of Buy Now Pay Later transactions in the last three months.

The second section focused on Paylater, hedonic motivation, self-control, and online impulse buying. The measures scales for Paylater we adopted from [21], [33], for hedonic motivation scales were utilized and adapted from [34], self-control was assessed utilizing the scales of [35] and online impulse buying was assessed using modified scales from [28]. All items were rated on a 5-point likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was distributed online using purposive sampling to 450 respondents who had used Paylater services.

Demographically, the sample comprised 68.5% females and 31.5% males. Most respondents were aged 17–25 years (55.2%) or 26–35 years (34.5%). The majority were students (44%) and employees (37.5%). Monthly expenditures were predominantly under IDR 2,500,000 (38.8%) or between IDR 2,500,000 and IDR 5,000,000 (31.5%). Transaction frequency in the last three months was mostly less than 3 times (50.4%) or between 3-5 times (36.2%).

Table 1. Characteristics of Respondents

	Characteristics	Numbers of people	Percentage (%)
Gender	Male	142	31.5
	Female	308	68.5
Age	17 – 25 years old	248	55.2
	26 – 35 years old	155	34.5
	36 – 45 years old	39	8.6
	46 – 55 years old	5	1.7
	> 55 years old	2	0.4
Occupation	Students / University student	198	44
	Private Sector Employee	169	37.5
	Entrepreneur	52	11.6
	Housewife	29	6.5
	Others	2	0.4
Monthly expenses	< Rp. 2.500.000,-	175	38.8
	IDR 2.500.000,- to IDR. 5.000.000,-	142	31.5
	IDR. 5.000.000,- to IDR. 7.500.000,-	101	22.4
	IDR. 7.500.000,- to IDR. 10.000.000,-	18	3.9
	> IDR.10.000.000,-	15	3.4
Intensity Transaction using Paylater (last 3 months)	< 3 times	227	50.4
	3 – 5 times	163	36.2
	6 – 10 times	39	8.6
	Above 10 times	21	4.7

4. Findings

Hypothesis testing was performed using SEM through SmartPLS4. The reliability of the variables was evaluated using cronbach's alpha and composite reliability. Variables are considered reliable if their values are both above 0.7. Table 2 shows that both composite reliability (CR) and cronbach's alpha values exceed 0.7.

Table 2. Validity and Reliability

Variable	Cronbach's Alpha	CR	AVE
BNPL	0.928	0.934	0.582
HM	0.853	0.857	0.693
OIB	0.893	0.899	0.610
SC	0.884	0.888	0.682

Validity was assessed through convergent and discriminant validity. Convergent validity was confirmed if outer indicator loadings were above 0.7 and average variance extracted (AVE) exceeded 0.5. In this study, both the loading indicator values and AVE met these criteria, indicating that the data validly represents the research constructs.

Table 3. Outer Loading Values

	PNBL	HM	OIB	SC	SC x HM	SC x BNPL
X1.1	0.748					
X1.2	0.724					
X1.3	0.812					
X1.4	0.789					
X2.1	0.709					
X2.2	0.708					
X2.3	0.838					
X2.4	0.738					
X3.1	0.761					
X3.2	0.746					
X3.3	0.802					
X4.1		0.851				
X4.2		0.831				
X4.3		0.837				
X4.4		0.811				
X5.1				0.817		
X5.2				0.841		
X5.3				0.823		
X5.4				0.826		
X5.5				0.820		
Y1.1			0.730			
Y1.2			0.818			
Y1.3			0.752			
Y1.4			0.814			
Y1.5			0.788			
Y1.6			0.814			
Y1.7			0.744			
SC x BNPL						1.000
SC x HM					1.000	

Discriminant validity evaluates the extent to which a construct is unique compared to others. In this study, the heterotrait-monotrait ratio (HTMT) was employed to measure it, with values under 0.9 signifying validity.

Table 4. Heterotrait-Monotrait Ratio

	BNPL	HM	OIB	SC	SCxHM	SC x BNPL
BNPL						
HM	0.349					
OIB	0.283	0.666				
SC	0.369	0.187	0.129			
SC x HM	0.199	0.050	0.069	0.097		
SC x BNPL	0.289	0.172	0.217	0.217	0.571	

BNPL=Buy Now Pay Later, HM=Hedonic Motivation, OIB=Online Impulse Buying, SC=Self-Control

The HTMT ratio for each construct is below 0.9. Thus, establishing discriminant validation implies that a structure is unique and captures phenomena not represented by other constructions in the model.

Table 5. Validation of Hypothesis

Hypothesis	Estimate	P Value	Results
BNPL → OIB	0,125	0,011	Supported
HM → BNPL	0,274	0,000	Supported
HM → OIB	0,556	0,000	Supported
SC x HM → BNPL	-0,149	0,014	Supported
SC x HM → OIB	0,093	0,050	Supported
SC x BNPL → OIB	-0,130	0,001	Supported

Based on Table 5, it is proven that all of the hypotheses formulated are supported by the results of this study, namely H1, H2, H3, H4, H5, and H6, each with a significance value below 0.05. It means that the availability of Paylater as a payment option and consumers' hedonic motivation have a significant effect on online impulse buying. Similarly, hedonic motivation has a significant effect on the utilisation of the Paylater payment system. Thus, self-control has a significant moderating effect on the relationship between consumer hedonic motivation and Paylater payment system use, Paylater payment system use and consumer impulse buying, and hedonic motivation and consumer impulse buying online.

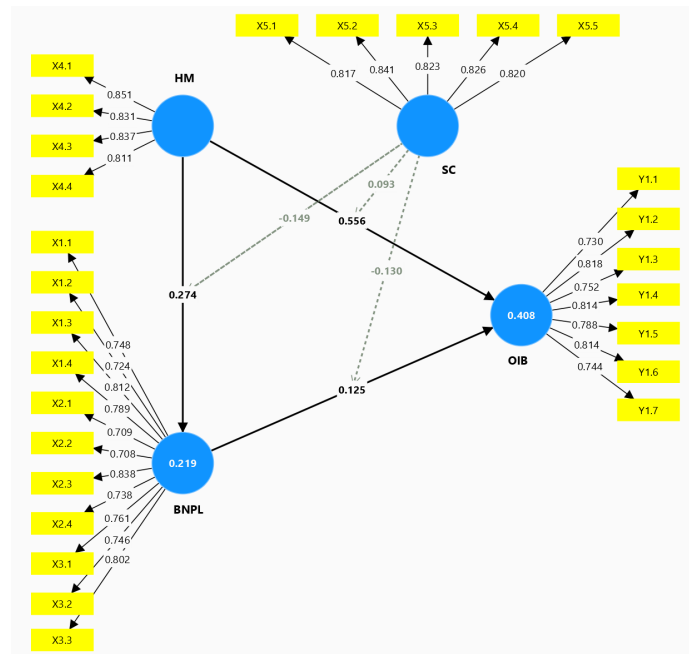


Fig. 3. Structural Model

Paylater is a payment method allowing consumers to buy goods or services now and pay in installments later. This research analyzes how Paylater availability and hedonic motivation affect online impulse buying, and examines self-control's role in moderating this relationship.

The study finds that Paylater's ease of registration, usage flexibility, perceived usefulness, and benefits—such as varied installment options, attractive promotions, low-interest rates, and fast transactions—encourage online impulse buying. Emotional factors tied to hedonic motivation, like the desire for satisfaction, joy, or pleasure, drive impulsive decisions and the use of Paylater.

However, self-control can mitigate the influence of hedonic motivation on Paylater usage. While self-control helps consumers manage their emotions, thoughts, and behavior to resist immediate temptations, it is less effective in curbing impulse purchases driven by the desire for enjoyment in online shopping. Thus, while self-control can reduce the impact of hedonic motivation on Paylater use, it does not fully prevent impulse buying, as the pursuit of pleasure remains a strong motivator in online shopping.

5. Conclusion

The availability of Paylater options in online retailers often leads to unplanned and spontaneous purchases, as it allows consumers to postpone payments and access credit easily. This makes Paylater services a significant factor in impulsive shopping behavior, particularly online.

Hedonic motivation, characterized by a desire for pleasure, enjoyment, and instant gratification, aligns well with the features of Paylater services, which support impulse buying. It has been demonstrated that hedonic motivation plays a crucial role in influencing the use of Paylater services and online impulse buying behavior.

Self-control can mitigate the temptation to use Paylater for hedonic purchases, but it does not fully prevent impulsive buying behavior in online shopping. This study highlights the role of hedonic motivation in using Paylater and the effect of Paylater on triggering online impulse buys, with self-control serving as a moderating factor.

References

- [1] T. Berg, V. Burg, J. Keil, and M. Puri, "The Economics of 'Buy Now, Pay Later': A Merchant's Perspective," *Pay Later: A Merchant's Perspective (May 15, 2023)*, 2023.
- [2] L. D. Hilmi and Y. Pratika, "Paylater feature: impulsive buying driver for e-commerce in indonesia," *International Journal of Economics, Business and Accounting Research (IJEBA)*, vol. 5, no. 2, 2021.
- [3] Ranto Rajagukguk, "Studi Tujuh Layanan Paylater di E-Commerce, Siapa yang Paling Kasih Cuan?," <https://www.marketeers.com/studi-tujuh-layanan-paylater-di-e-commerce-siapa-yang-paling-kasih-cuan/>, 2023.
- [4] F. C. Authority, "The Woolard review—A review of change and innovation in the unsecured credit market," *Financial Conduct Authority*, 2021.
- [5] US Congress, "Lauren Saunders' (National Consumer Law Center) Testimony On 'Buy Now, Pay More Later? Investigating Risks and Benefits of BNPL and Other Emerging Fintech Cash Flow Products' on November 2, 2021. Task Force on Financial Technology, U.S. House Committee on Financial Services.," 2021.
- [6] S. E. Beatty and M. Elizabeth Ferrell, "Impulse buying: Modeling its precursors," *Journal of Retailing*, vol. 74, no. 2, pp. 169–191, Jun. 1998, doi: 10.1016/S0022-4359(99)80092-X.

- [7] J. Keil and V. Burg, "'Buy Now, Pay Later' and Impulse Shopping," *Available at SSRN 4448780*, 2023.
- [8] A. Elsayed, C. M. Fung, and H. Wu, "Impulsive Buying Behaviour on BNPL Services," 2022.
- [9] A. Khan and A. Vilarly Mbanyi, "Millennial's fashion buying behavior from Buy Now, Pay Later perspective: A study of Buy Now, Pay Later (BNPL) and its influence on millennials buying behavior and consumption when mobile shopping," 2022.
- [10] A. J. Sultan, J. Joireman, and D. E. Sprott, "Building consumer self-control: The effect of self-control exercises on impulse buying urges," *Mark Lett*, vol. 23, pp. 61–72, 2012.
- [11] G. Sun, X. Han, H. Wang, J. Li, and W. Wang, "The Influence of Face Loss on Impulse Buying: An Experimental Study," *Front Psychol*, vol. 12, Jul. 2021, doi: 10.3389/fpsyg.2021.700664.
- [12] M. Moayery, L. Narvaiza Cantín, and J. J. Gibaja Martins, "How does self-control operate? A focus on impulse buying. Papeles Del Psicologo," *Papeles del Psicólogo - Psychologist Papers*, vol. 40, no. 2, 2019, doi: 10.23923/pap.psicol2019.2893.
- [13] R. Sheikh, "BNPL: how does it work," *BBC Panorama. Available at*, 2021.
- [14] S. Dawson and M. Kim, "External and internal trigger cues of impulse buying online," *Direct Marketing: An International Journal*, vol. 3, no. 1, pp. 20–34, 2009.
- [15] S. L. Natswa, "Buy-now-pay-later (bnpl): generation z's dilemma on impulsive buying and overconsumption intention," in *BISTIC Business Innovation Sustainability and Technology International Conference (BISTIC 2021)*, Atlantis Press, 2021, pp. 130–137.
- [16] B. Widagdo and K. Roz, "Hedonic shopping motivation and impulse buying: the effect of website quality on customer satisfaction," *The Journal of Asian Finance, Economics and Business*, vol. 8, no. 1, pp. 395–405, 2021.
- [17] W. Laura Sahetapy, E. Yunnni Kurnia, and O. Anne, "The Influence of Hedonic Motives on Online Impulse Buying through Shopping Lifestyle for Career Women," *SHS Web of Conferences*, vol. 76, p. 01057, Apr. 2020, doi: 10.1051/shsconf/20207601057.
- [18] P. E. Otto, G. Davies, N. Chater, and H. Stott, "How to save more: Tools for self-control," *INT J PSYCHOL*, vol. 39, no. 5–6, p. 470, 2004.
- [19] J. R. Nofsinger, "Social Mood and Financial Economics," *Journal of Behavioral Finance*, vol. 6, no. 3, pp. 144–160, Sep. 2005, doi: 10.1207/s15427579jbfm0603_4.
- [20] R. F. Baumeister, "Yielding to Temptation: Self-Control Failure, Impulsive Purchasing, and Consumer Behavior," *Journal of Consumer Research*, vol. 28, no. 4, pp. 670–676, Mar. 2002, doi: 10.1086/338209.
- [21] F. D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, vol. 13, no. 3, p. 319, Sep. 1989, doi: 10.2307/249008.
- [22] V. Kumar and S. Shah, "Buy Now, Pay Later: A New Payment Mode. Journal of Retailing," *Journal of Retailing*, 2021.
- [23] P. Kotler, K. L. Keller, M. Brady, M. Goodman, and T. Hansen, *Marketing Management*, 15th ed. Pearson, 2019.
- [24] A. C. W. Fook and O. Dastane, "Effectiveness of Loyalty Programs in Customer Retention: A Multiple Mediation Analysis," *Jindal Journal of Business Research*, vol. 10, no. 1, pp. 7–32, Jun. 2021, doi: 10.1177/22786821211000182.
- [25] A. L. Duckworth, H. Grant, B. Loew, G. Oettingen, and P. M. Gollwitzer, "Self-regulation strategies improve self-discipline in adolescents: benefits of mental contrasting and implementation intentions," *Educ Psychol (Lond)*, vol. 31, no. 1, pp. 17–26, Jan. 2011, doi: 10.1080/01443410.2010.506003.
- [26] T. E. Moffitt *et al.*, "A gradient of childhood self-control predicts health, wealth, and public safety," *Proceedings of the National Academy of Sciences*, vol. 108, no. 7, pp. 2693–2698, Feb. 2011, doi: 10.1073/pnas.1010076108.
- [27] Kendra Cherry, "Self-Improvement: How to Improve Your Self-Control," 2023.
- [28] D. W. Rook, "The Buying Impulse," *Journal of Consumer Research*, vol. 14, no. 2, p. 189, Sep. 1987, doi: 10.1086/209105.
- [29] H. Stern, "The Significance of Impulse Buying Today," *J Mark*, vol. 26, no. 2, pp. 59–62, Apr. 1962, doi: 10.1177/002224296202600212.

- [30] S. Kimiagari and N. S. Asadi Malafe, "The role of cognitive and affective responses in the relationship between internal and external stimuli on online impulse buying behavior," *Journal of Retailing and Consumer Services*, vol. 61, p. 102567, Jul. 2021, doi: 10.1016/j.jretconser.2021.102567.
- [31] E. F. I. Mallari, C. K. A. Ato, L. J. M. O. Crucero, J. T. Escueta, V. A. P. Eslabra, and P. E. M. Urbano, "The mediating role of impulse buying on hedonic shopping motivation and life satisfaction of online shoppers in the Philippines," *Int Soc Sci J*, vol. 73, no. 249, pp. 861–872, Sep. 2023, doi: 10.1111/issj.12430.
- [32] J. Cook *et al.*, "Buy now pay later services as a way to pay: credit consumption and the depoliticization of debt," *Consumption Markets & Culture*, vol. 26, no. 4, pp. 245–257, 2023.
- [33] J. P. Tangney, A. L. Boone, and R. F. Baumeister, "High self-control predicts good adjustment, less pathology, better grades, and interpersonal success," in *Self-regulation and self-control*, Routledge, 2018, pp. 173–212.
- [34] Park, E.J., Kim, E.Y., Funches, V.M. and Foxx, W., "Apparel product attributes, web browsing, and impulse buying on shopping websites", *Journal of Business Research*, vol. 65 no. 11, pp. 1583-1589, 2012.
- [35] Tangney, J. P., Baumeister, R. F., and Boone, A. L., "High self-control predicts good adjustment, less pathology, better grades, and interpersonal success". *J. Pers.* 72, 271–322, 2004. doi: 10.1111/j.0022-3506.2004.00263.x