

The Effect of Limited Time Offers and Platform Service Quality on Impulsive Buying Among E-Commerce Consumers in Indonesia With Paylater As a Moderating Variable

Nazmi Aulia Rachim¹, Sulhaini²

¹Management Study Program, Faculty of Economics and Business, University of Mataram

²Management Study Program, Faculty of Economics and Business, University of Mataram

E-mail: nazmiaulia1309@gmail.com

Abstract

Keywords:

limited time offer, platform service quality, paylater, e-commerce

The rapid growth of e-commerce in Indonesia has led to the emergence of various digital marketing strategies that stimulate consumers' impulsive buying behavior. This study examined the effects of limited time offers and platform service quality on impulsive buying among e-commerce consumers in Indonesia, with paylater as a moderating variable. It employed a quantitative approach. Research data were collected using an online survey method, in which questionnaires were distributed through social media. The collected data were analyzed using the Structural Equation Model (SEM) method with Amos 31 software. The results of this study indicate that limited time offers have a significant effect on impulsive buying. In contrast, platform service quality does not have a significant effect on impulsive buying. In addition, paylater has been shown to influence the relationship between limited time offers and platform service quality, as well as impulsive buying. This study contributes to the literature and has practical implications for e-commerce practitioners in developing digital marketing strategies.

INTRODUCTION

The rapid advancement of technology has accelerated the digital transformation of economic activities in many countries, including in Indonesia. According to a report by Google, Temasek, and Bain & Company, Indonesia's digital economy has exceeded \$80 billion, representing a 13% year-on-year increase and positioning Indonesia as country with the highest digital economy value in Southeast Asia (Google, 2024; Amri, 2025). As the Digital Economy Outlook report released by CELIOS indicates, e-commerce is one of the main sectors contributing to the largest digital economy transactions in Indonesia, with projected transaction values reaching IDR 471.01 trillion in 2025 (Putri, 2025). These trends reflect the rapid growth of digital consumer behavior in Indonesia. Changes in current consumption patterns have significantly contributed to the growth of the e-commerce sector, as people prioritize convenience, security, and personalized experiences when shopping online (Lubis et al., 2024).

E-commerce often encourages consumers to make impulsive purchases, even when such decisions may not align with their long-term interests. E-commerce provides access to products, services, purchasing processes, and payments, making consumers more likely to make impulsive purchases (Huang et al., 2024). Akram et al. (2018) define impulsive buying as consumer actions that are direct, spontaneous, and reckless, often occurring without careful consideration. One of the most commonly employed ways to stimulate consumers to act impulsively is through Limited Time Offers. Oberoi (2024) found that limited time offers can trigger impulsive behavior by

creating a sense of urgency and scarcity through the promotions offered, thereby reducing consumers' deliberation in decision making. This is in line with research conducted by Ruliya et al. (2024), which revealed that limited time offers created a sense of urgency and discomfort, causing consumers to make decisions without fully evaluating potential risks.

In addition to promotions, the quality of platform services also plays a critical role in shaping consumers' online shopping experiences and purchase decisions. Platform that provide quick, responsive, and reliable services instill a sense of ease of use and trust in users, which can lead to impulsive behavior (Mardhotillah & Wibawa, 2025). Hanaysha et al. (2025) found that website quality and perceived service quality significantly influence consumers' purchase intentions. Furthermore, e-commerce platforms that provide attractive visuals tend to enhance consumer trust and reduce perceived uncertainty, thereby increasing the likelihood of purchase intention (Qalati et al., 2021).

In parallel with these developments, the adoption of "buy now pay later", commonly referred to as paylater, has grown rapidly as it reduces financial barriers in the transaction process. Several e-commerce platforms have implemented this feature, such as Shopee, Tokopedia, Lazada, and Blibli. In Indonesia, the adoption of paylater continues to increase annually. Kredivo reported that 70.5% of consumers used paylater for online shopping in 2024 (Kredivo, 2024). Hilmi and Pratika (2021) found that paylater services have a direct positive effect on impulsive purchases. The use of paylater as a payment method is associated with a reduction in the "pain of payment" for consumers and provides a lower cost perception (installment costs), which can subsequently stimulate higher consumer shopping behavior (Ashby Bsc, 2019).

The review of literature has identified several gaps. The first gap is the lack of understanding related to the Limited Time Offer variable (Wu et al., 2021; Gong & Huang, 2024). Thus, further research related to this variable is needed. Secondly, there is a lack of literature directly addressing platform service quality. The last gap identified is the limited use of the paylater variable as a moderator. Most previous studies still focused on the direct influence of paylater, and the use of paylater as a moderating variable was still relatively rare. Moreover, empirical findings regarding paylater users remain inconsistent. Research conducted by Hamidah et al. (2024) demonstrated that the use of PayLater has a strong influence on impulsive buying. This is inconsistent with the results of research conducted by Vernanda et al. (2025), which showed that PayLater did not significantly influence impulsive buying behavior. Similarly, a study among K-Pop consumers showed no significant effect of PayLater use on impulsive buying (Islamiyati & Susantun, 2024). Addressing these gaps, this study examined the influence of limited time offers and platform service quality on impulsive buying among e-commerce consumers in Indonesia with Paylater as a moderating variable.

LITERATURE REVIEW

This study adopts the Stimulus-Organism-Response (SOR) theory as its theoretical basis. Based on this theory, this study places paylater as part of the psychological process of consumers to understand how limited time offers and platform service quality can encourage impulsive buying among e-commerce consumers in Indonesia.

The Effect of Limited Time Offers on Impulsive Buying

Limited time offers are a promotional strategy often used to attract consumers in e-commerce. LTOs are defined as time-restricted promotional activities that create a perception of time scarcity, causing consumers to act quickly and spontaneously (Barton et al., 2022). This strategy often appears in the form of flash sales, countdown deals, bundling promotions, and similar offers. The time pressure induced by this promotional strategy causes consumers to experience stress and influences their perceptions of product quality and risk, which directly affect their purchasing decisions (Liang & Lin, 2023). According to G Pattinaja et al. (2023), the indicators of limited time offers include time, fear of missing out (FOMO), limited, and price effect. Within the Stimulus-Organism-Response (S-O-R) theoretical framework, limited time offers function as a powerful external stimulus because they create a perception of scarcity, thereby encouraging consumers to act quickly (Rahmawati & Setyowibowo, 2025). Furthermore, Tsabita and Isa (2025) found that time-limited promotions can increase stimulation and arousal among consumers. The feelings experienced during the promotion cause consumers to feel pressured, prompting them to make quick decisions before the product is sold out within a certain period. In addition, Nathanel and Budidharmanto (2025) explain that time-limited promotions have a significant effect on impulsive buying because they trigger a sense of urgency, leading consumers to take immediate action before missing the opportunity. Based on the above explanation, the first hypothesis is formulated as follows:

H1: Limited time offers have a positive effect on impulsive buying.

The Effect of Platform Service Quality on Impulsive Buying

The rapid expansion of e-commerce has influenced the role of platform service quality in shaping consumer experiences and behavior when using a platform. Platform service quality refers to consumers' perceptions of a platform's ability to provide secure, fast, and reliable services to support digital transactions. In this context, platform service quality encompasses not only technical aspects but also product information clarity, ease of navigation, loading speed, visual appeal, and payment system reliability (Astuti et al., 2024). According to Turkyilmaz et al. (2015), the indicators of platform service quality include usefulness, ease of use, and entertainment. Platforms that provide a pleasant, easy-to-use, and trustworthy shopping experience can trigger spontaneous purchases. Based on the Stimulus-Organism-Response (S-O-R) theoretical framework, platform service quality functions as a stimulus that triggers internal responses within consumers (organism), which ultimately result in impulsive behavior (response) (Hayu et al., 2020). Based on the above theoretical explanation, the second hypothesis is formulated as follows:

H2: Platform service quality have a positive effect on impulsive buying.

The Effect of Limited Time Offers and Platform Service Quality on Impulsive Buying with Paylater as a Moderating Variable

The availability of “buy now pay later” or paylater services is one of the factors influencing consumer behavior online shopping. Paylater is a payment feature that allows consumers to make purchases immediately and pay later within a time limit set by the marketplace and agreed upon by consumers (Putri et al., 2025). Paylater functions similarly to a credit card but offers greater accessibility due to simpler approval processes and the absence of physical card requirement. Similar to credit cards, paylater deferred payments to be settled at a predetermined time (Lia &

Natswa, 2021). Research conducted by Juita et al. (2023) found that consumptive behavior tends to increase among Paylater users when it is not accompanied by adequate self-control and digital financial literacy. On the other hand, time-limited promotions have been proven to trigger emotional responses namely, a sense of urgency and anxiety, which drive fear of missing out (FOMO) and encourage impulsive behavior (Zhang, 2024). In addition, Septiane and Purmono (2023) demonstrated that the quality of a website and payment using the paylater method have a significant effect on online impulsive buying. Therefore, paylater is assumed to moderate the influence of limited time offers and platform service quality on impulsive buying. Based on this explanation, the researchers formulated the following hypotheses:

H3: Paylater moderates the influence of limited time offers on impulsive buying.

H4: Paylater moderates the influence of platform service quality on impulsive buying.

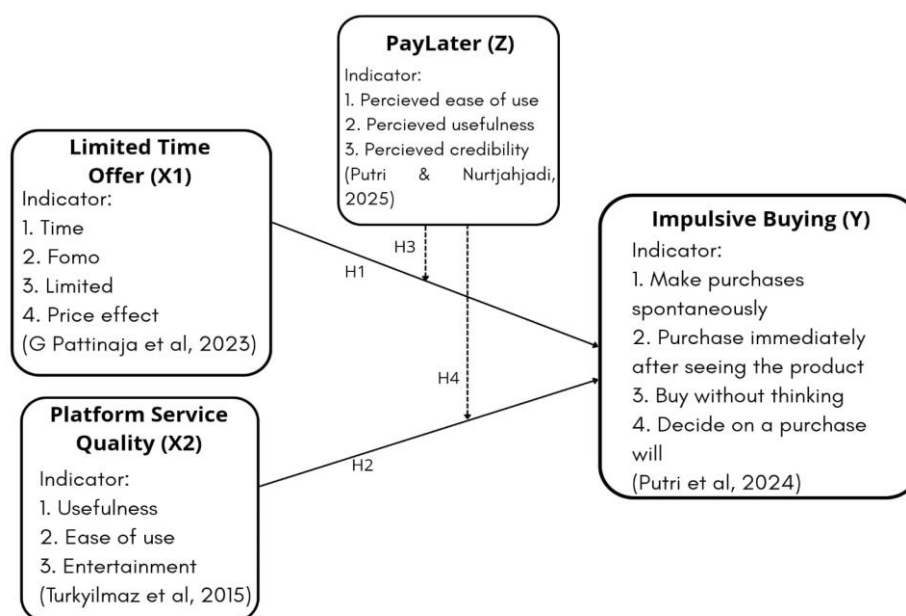


Figure 1. conceptual framework

METHODS

This study employs a quantitative method. It aims to examine the relationship between limited time offers and platform service quality as independent variables and impulsive buying as the dependent variable, with paylater as the moderating variable. The technique used is a survey, with data collected through structured questionnaires distributed to respondents.

Data were collected through online questionnaires distributed via social media. Online questionnaires were chosen because they allowed respondents from various regions in Indonesia to access them easily and enable a faster data collection process. This approach is supported by the results of national survey showing that the level of internet adoption among the population has reached 80.6% (Nugraha, 2025). Therefore, the online survey method was considered appropriate for reaching a broader population of e-commerce users.

The population of this study consisted Indonesians who use e-commerce, with a sample size of 150 respondents. The sample was obtained through non-probability sampling, specifically purposive sampling. This technique was chosen because it allowed the researchers to select respondents based on specific criteria relevant to this study, such as:

1. Minimum age of 17 years
2. Active user of e-commerce
3. Have used paylater as a payment method.

The instruments in this study consisted of four main constructs, each measured using indicators adapted from previous studies. Each indicator was measured using a 1-5 Likert scale (1 = strongly disagree, 5 = strongly agree).

Data analysis was conducted using the Structural Equation Model (SEM) method with Amos 31 software. The SEM method was chosen because it enables the examination of relationships among latent variables and allows for the analysis of direct and moderating effects within a single structural model. The analysis began with testing the measurement model through confirmatory factor analysis (CFA) to ensure the validity and reliability of the research constructs. subsequently, the structural model was tested to examine the hypothesized relationships among the constructs.

RESULTS

Characteristics of Respondent

Table 1. Characteristic Respondent

	Characteristic	Person	%
Gender	Male	25	17%
	Female	125	83%
Occupation	Student	122	81%
	Private Employee	14	9%
	Civil Servants	3	2%
	Entrepreneur	6	4%
	Others	5	3%
Income	<2.000.000	89	59%
	2.000.000 - 7.000.000	55	37%
	7.000.000 - 12.000.000	5	3%
	12.000.000 - 17.000.000	1	1%
	17.000.000 - 25.000.000	0	0%
	>25.000.000	0	0%
Regional	Java	103	69%
	Sumatra	11	7%
	Kalimantan	3	2%
	Sulawesi	4	3%
	Bali & Nusa Tenggara	29	19%
	Papua	0	0%
Frequency of Online Shopping	Infrequently	15	10%
	1 - 2 times/month	60	40%
	3 - 5 times/month	50	33%
	>5 times/month	25	17%
PayLater Used	Shopee PayLater	141	94%
	Tokopedia PayLater	8	5%
	Kredivo	7	5%
	Akulaku	2	1%
	GopayLater	10	7%

Based on the table above, the majority of respondents in this study were women, accounting for 83% of the total sample. This indicates that women are more dominant in online shopping compared to men. This is in line with the research of Rinonce and Jannah (2024), which found that women tend to engage in impulsive purchases, especially when shopping online. In addition, most respondents were students, indicating that young people are active users of e-commerce. Online shopping has become part of their daily lives. They perceive online shopping as more attractive and enjoyable because it is not limited by time or place and can be done anywhere (Suyanto et al., 2025).

Measurement Model

Table 2. Validity and Reliability Test

Construct/Item	Outer Loading	C R	A V E	Cronbach's Alpha
Limited Time Offer (X1)				
1) I feel rushed to buy when the promotion is only valid for a short period of time	0.794			
2) The promotion deadline makes me want to make a purchase immediately	0.622			
3) I am worried that I will miss out if I don't buy immediately while the promotion is still valid	0.755			
4) I feel afraid of being left behind if I don't take advantage of the limited-time offer	0.786	0.9 13	0.8 81	0.879
5) I find limited-stock offers more appealing to purchase	0.668			
6) The "limited stock" information motivates me more to buy	0.69			
7) Time-limited discounts make me perceive the product price as more advantageous	0.529			
8) Limited-time offers make me feel like I'm getting better value	0.659			
Platform Service Quality (X2)				
1) The features provided by the platform help me find the products I want	0.485			
2) The platform provides useful product information that helps me make decisions	0.526			
3) The platform is easy to use for searching and purchasing products	0.561	0.9 21	0.8 66	0.705
4) The checkout and payment process on the platform is very simple and fast	0.424			
5) I enjoy my time exploring the platform	0.536			
6) The content on the platform (videos, reviews, promotions) makes the shopping experience enjoyable	0.532			
PayLater (Z)				
1) Paylater on e-commerce platforms is easy to use when I shop	0.626	0.9 21	0.8 75	0.723
2) I can understand how to use Paylater without much effort	0.493			

3) Paylater helps me complete transactions even when funds are not yet available	0.537
4) Paylater makes it easier for me to make quick purchasing decisions	0.606
5) I believe that Paylater on the platform is safe for transactions	0.543
6) Information about Paylater terms, fees, and conditions is clearly communicated and trustworthy	0.645

Impulsive Buying (Y)

1) I often buy products spontaneously without planning ahead	0.72			
2) I often buy items simply because I am attracted to them when I see them on the platform	0.741			
3) I decide to buy after seeing an attractive product display	0.599			
4) I am immediately interested in buying when I see a product on the platform's homepage	0.774	0.9	0.8	0.912
5) I often buy without much consideration	0.841	09	84	
6) I rarely think twice before buying a product that catches my attention	0.833			
7) I find it difficult to resist the urge to buy when there is an attractive offer	0.712			
8) When I want to buy something, I usually do it right away	0.778			

Based on the validity test results presented in the table above, three items that must be removed because they have factor loadings below 0.50, namely PSQ.1, PSQ.2, and PayLater.2. Meanwhile, the remaining items can be considered valid because they have factor loadings above 0.50 (Hair, 2014).

Based on the table above, all constructs are reliable. Cronbach's alpha and composite reliability (CR) values for all constructs exceed the recommended cut-off value of 0.70. In addition, the average variance extracted (AVE) value for each construct is above 0.50 (Hair, 2014). Therefore, it can be concluded that the constructs in this study are reliable.

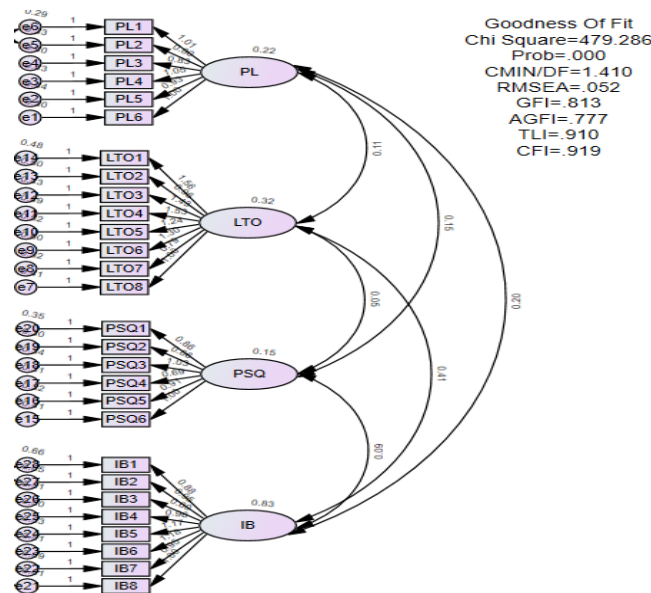


Figure 2. CFA Model

The model in this study demonstrates an acceptable model fit, with goodness of fit indices: CMIN/DF=1.410, RMSEA=0.052, GFI=0.813, AGFI=0.777, TLI=0.910, CFI=0.919. Although some values are still below the ideal thresholds, the use of a multi-index approach is common practice in Structural Equation Model (SEM), as each indicator has different sensitivity to sample size and model complexity. Therefore, the model is considered adequate and reliable for further analysis.

Table 3. Discriminant validity

Variable	(X1)	(X2)	(Z)	(Y)
Limited Time Offer (X1)	0.938			
Platform Service Quality (X2)	0.226	0.930		
PayLater (Z)	0.455	0.821	0.935	
Impulsive Buying (Y)	0.782	0.252	0.493	0.940

In this study, discriminant validity evaluated using the method proposed by Fornell and Larcker (1981). According to this approach, the square root of the Average Variance Extracted (AVE) for each construct must be greater than the correlation between that construct and other latent variables. If this criterion is satisfied, the construct is considered to explain the variance of its own indicators more effectively than the variance shared with other constructs, thereby confirming discriminant validity.

Structural Model Results

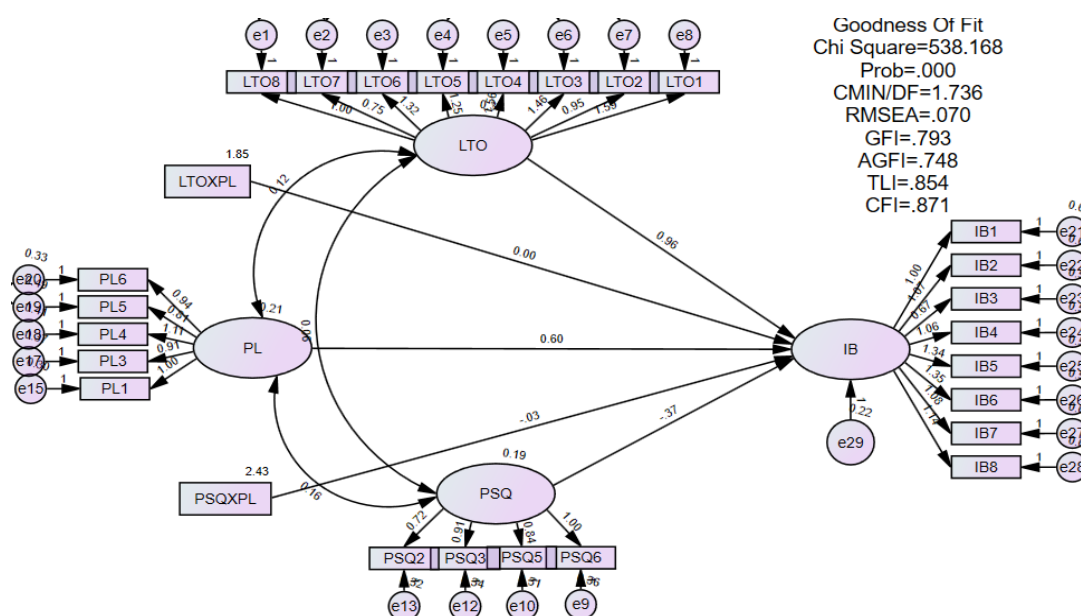


figure 3. Structural Model

To test the hypotheses in this study, Amos 31 was used to conduct the SEM analysis. The results of the goodness of fit evaluation for the structural model showed the following values: CMIN/DF=1.736, RMSEA=0.70, GFI=0.793, AGFI=0.748, TLI=0.854, CFI=0.871. The CMIN/DF and RMSEA values fall within the recommended range, indicating an acceptable

model fit. The TLI and CFI values, which are close to 0.90, suggest that the model demonstrates a marginal fit yet acceptable for further analysis. Although the GFI and AGFI values are below the recommended cut-off values, this condition is still considered acceptable given the complexity of the model.

Table 4. Hypothesis test

Hypothesis	Estimate	S.E.	C.R.	P	Conclusion
H1: LTO -> IB	1.369	0.349	3.924	***	Significant
H2: PSQ -> IB	-0.299	0.462	-0.646	0.518	Insignificant
H3: LTOXPayLater -> IB	0.06	0.03	1.992	0.046	Significant
H4: PSQXPayLater -> IB	-0.109	0.037	-2.958	0.003	Significant

The results of the hypothesis testing indicate that only one hypothesis is not supported, namely the effect of platform service quality on impulsive buying. The other three hypotheses are supported, as evidenced by p-values <0.05 and critical ratio (CR) >1.96 . These include the effect of limited time offers on impulsive buying, as well as the moderating role paylater in the relationships between limited time offers and platform service quality on impulsive buying. The findings suggest that impulsive buying is more strongly driven by emotional stimuli, such as limited time offers. Furthermore, the availability of paylater strengthens the effect of time-limited promotional urgency while weakening the influence of platform service quality on impulsive buying.

DISCUSSION

Limited Time Offers Influence Impulsive Buying

The findings indicate that limited time offers have a significant effect on impulsive buying. This further reinforces the view that time-limited promotions tend to have an impulsive effect on consumers. This aligns with the Stimulus-Organism-Response (S-O-R) theory, where limited time offers function as external stimuli that create a perception of scarcity, thereby encouraging consumers to act impulsively (Rahmawati & Setyowibowo, 2025). In addition, promotions that convey a sense of urgency can create a FOMO effect on consumers, accelerating their purchasing decisions (Fuad et al., 2026). The time pressure caused by this promotional strategy causes consumers to experience stress and influences their perception of the quality and risk of a product, which directly affects their purchasing decisions (Liang & Lin, 2023). In the context of e-commerce, this strategy is often seen in the form of flash sales and discounts with countdowns visible on online shopping applications. This strategy exploits consumer psychology to maximize profits from offers before time runs out. This effect is even stronger on younger consumers, who tend to respond quickly to information, ultimately leading them to impulsive behavior.

Platform Service Quality Influence Impulsive Buying

Platform service quality indicates no significant effect in this study. This means that the quality of a platform's services, such as speed, platform appearance, navigation, and reliability, may not be sufficient to trigger consumers' spontaneous purchasing decisions. This finding is consistent with research conducted by Ailsa et al. (2024), which revealed that platform quality has a negative effect on impulsive buying. Conceptually, impulsive buying is more often influenced by emotional stimuli than functional ones. In the Stimulus-Organism-Response (S-O-R) framework,

platform service quality acts as a cognitive stimulus that influences rational evaluation, rather than an affective stimulus that triggers spontaneous emotional reactions. This aligns with research conducted by Asmara et al. (2025), which found that platform service quality does not directly influence impulsive buying. Instead, emotional stimuli, such as limited-time offers, tend to exert a stronger influence on impulsive buying behavior than the quality of a website. In addition, several indicators of platform service quality, such as ease of use and quality of information provided, can enhance consumers' perceived value. This perceived value is a rational evaluation derived from logical reasoning; therefore, it does not significantly influence impulsive purchases, which are predominantly emotional in nature (Kang & Namkung, 2024). Thus, platform service quality is not a strong factor in driving consumers' desire to make impulsive purchases.

PayLater Moderates the Relationship between Limited Time Offers and Impulsive Buying

In this study, the role of paylater in moderating the relationship between limited time offers and impulsive buying shows significant results. Although the value of its influence is relatively small, it still indicates that the existence of payment methods such as paylater can increase consumers' tendency to make impulsive purchases. The ease of payment provided by PayLater encourages impulsive behavior (Adhani et al., 2025). Theoretically, the use of PayLater can reduce the “pain of payment” for consumers, making them more responsive to external stimuli such as limited time offers that encourage impulsive purchases. This finding is in line with Ashby Bsc (2019) which shows that the use of Paylater as a payment method is considered to reduce the “pain of payment” for consumers and provide a lower cost perception (installment costs), which ultimately results in an increase in consumer shopping behavior. It is consistent with research conducted by Bakar et al. (2025), which found that Paylater can delay the “pain of payment” and make impulsive purchasing behavior higher than other payment methods. Lia and Natswa (2021) found that the use of Paylater can lead to low cognitive control regardless of financial conditions and other consequences that impact excessive consumption or impulsive behavior among the younger generation.

Paylater Moderates the Relationship between Platform Service Quality and Impulsive Buying

The results of the analysis in this model indicate that Paylater moderates the relationship between platform service quality and impulsive buying, but weakens the influence of platform service quality on impulsive buying. This means that when Paylater is available, the influence of platform service quality on impulsive buying becomes weaker. The existence of convenient payment methods such as Paylater can shift consumers' focus to the ease of transactions. Consumers' focus on evaluating the service quality of a platform decreases and shifts to the ease of payment, which leads to impulsive behavior. The results of a systematic analysis conducted by Nusir et al. (2026) suggest that the mechanism used by Paylater tends to influence actions based on emotions, thereby reducing awareness and cognitive barriers that lead to impulsive actions. However, platform service quality tends to be based on consumers' cognition, which influences their rational evaluation. The use of Paylater as a payment method can reduce the influence of platform service quality in triggering impulsive purchases. These results highlight that Paylater strengthens emotional stimuli, such as limited time offers, and weakens the influence of platform service quality in triggering impulsive buying.

IMPLICATIONS

Theoretically, this study contributes to the development of digital consumer behavior literature, particularly in relation to the Stimulus-Organism-Response (SOR) theory. First, the findings reinforce that scarcity and time pressure are strong factors influencing impulsive buying in the context of e-commerce. Second, these results enhance understanding of the role of platform service quality, indicating that it is not a dominant factor in driving consumers' intentions to engage in impulsive purchases. Third, the findings suggest that use of paylater as a payment method can either strengthen or weaken the relationship between variables, depending on the context. Lastly, the results emphasize that impulsive behavior is triggered more by emotional external stimuli than by cognitive stimuli that shape consumers' rational evaluations.

From a practical perspective, this study provides important implications for e-commerce practitioners. The implementation of time-limited promotional strategies can encourage consumers to make impulsive purchases, thereby increasing short-term sales. However, e-commerce providers should continue to improve the quality of their platform services to enhance consumer satisfaction and loyalty. In addition, paylater service providers need to recognize that the effectiveness of paylater is contextual; therefore, it should be integrated with other strategic approaches to achieve optimal results.

LIMITATIONS

Like most empirical studies, this study has several limitations. First, the data were collected through an online questionnaire using a self-report method, which may introduce response bias. Second, this study employed a cross-sectional design, in which data were collected within a certain period of time; therefore, it cannot capture potential changes in impulsive buying behavior over time. Third, the independent variables examined were limited time offers and platform service quality. Therefore, future studies are recommended to adopt a longitudinal or experimental design and to include additional psychological variables as alternative variables to provide a more comprehensive understanding of impulsive buying behavior.

CONCLUSION

The results of this study indicate that limited time offers have a significant effect on impulsive buying. This may occur because limited time offers function as a strong external stimulus and create a sense of urgency among consumers, thereby encouraging them to make impulsive purchases. Meanwhile, platform service quality does not have a significant effect on impulsive buying, suggesting that technical and functional aspects are not sufficiently strong to drive consumers to engage in impulsive purchases. In addition, paylater has been shown to strengthen the relationship between limited time offers and impulsive buying. This implies that the availability of paylater services enhances consumers' responses to time-limited promotions and encourages impulsive behavior. Moreover, paylater has been found to weaken the relationship between platform service quality and impulsive buying. These findings indicate that when consumers use paylater as a payment method, their focus shifts from evaluating platform service quality to transaction convenience, making platform service quality a less influential factor in impulsive buying. Overall, these findings suggest that impulsive buying is more influenced by emotional stimuli and payment convenience mechanisms than by functional stimuli.

REFERENCES

- Ailsa, J., Paso, N., & Fahma Auliya, Z. (n.d.). *IMMERSIVE 2024 International Management Conference and Progressive Paper The influence of lifestyle, personality traits, and platform quality on impulse buying on Tiktok social commerce*. Retrieved <https://creativecommons.org/licenses/by/4.0/legalcode>.
- Akram, U., Hui, P., Khan, M. K., Yan, C., & Akram, Z. (2018). Factors affecting online impulse buying: Evidence from Chinese social commerce environment. *Sustainability (Switzerland)*, 10(2). <https://doi.org/10.3390/su10020352>
- Amri, I. (2025, July 17). *Indonesia: Pasar Strategis dan Mitra Masa Depan Ekonomi Global*. INDONESIA.GO.ID.
- Ashby Bsc, R. (2019). *WHEN SPENDING MORE FEELS LIKE LESS: THE INFLUENCE OF THE BUY-NOW-PAY-LATER PAYMENT METHOD ON CONSUMER SPENDING BEHAVIOUR*.
- Astuti, K., Sari, N., Batubara, H. M., Anwar, K., Evanita, S., & Dwita, V. (2024). Website quality affects online compulsive purchase behaviour of students faculty of economics and business UNP. *JPPPI (Jurnal Penelitian Pendidikan Indonesia)*, 10(4), 711–721. <https://doi.org/10.29210/020243702>
- Azizah Asmara, M., Adib Sultan, M., Arissaputra, R., Purwanto, H., Ratifah, I., Bandung, A., Pendidikan Indonesia, U., Pasundan, U., & Riset Bisnis dan Manajemen, J. (2025). FROM CLICKS TO IMPULSE: HOW WEBSITE QUALITY AND E-WOM DRIVE PURCHASES VIA SALES PROMOTIONS. *Indonesia Jl. Dr. Setiabudhi No, 40116(8)*. <https://journal.unpas.ac.id/index.php/jrbm/index>
- Bakar, R., Fauziyah, N., & Rahmat, A. (2025). Do Consumers Perceive Impulsive Buying and Pain of Payment? E-Commerce Transactions Using Pay Later, E-Wallet, and Cash-On-Delivery. *Gadjah Mada International Journal of Business*, 27(1), 31–59. <http://journal.ugm.ac.id/gamaijb>
- Barton, B., Zlatevska, N., & Oppewal, H. (2022). Scarcity tactics in marketing: A meta-analysis of product scarcity effects on consumer purchase intentions. *Journal of Retailing*, 98(4), 741–758. <https://doi.org/10.1016/j.jretai.2022.06.003>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18, 39–50. <https://doi.org/10.1177/002224378101800104>
- G Pattinaja, M. A., Mangantar, M., C Pandowo, M. H., G Pattinaja, M. A., Mangantar, M., & C Pandowo, M. H. (2023). *THE IMPACT OF USER INTERFACE AND TIME SCARCITY ON PURCHASE INTENTION THROUGH E-COMMERCE SHOPEE AMONG YOUNG ADULTS IN MANADO PENGARUH USER INTERFACE DAN KELANGKAAN WAKTU TERHADAP NIAT BELI MELALUI ECOMMERCE SHOPEE DI KALANGAN MUDA DI MANADO*. 11(3), 149–160.
- Gong, Z., & Huang, J. (2024). Limited Time Offer and Consumer Search. *Management Science*, 71, 7692–7706. <https://doi.org/10.1287/mnsc.2022.00445>
- Google. (2024, November 13). *e-Conomy SEA 2024: Perekonomian digital Indonesia akan mencapai GMV \$90 miliar pada tahun 2024*. Google Indonesia.
- Hafsha Tsabita, S., & Isa, M. (2025). Pengaruh Scarcity Promotion Pada Flash Sale Terhadap Impulse Buying Dengan Arousal Sebagai Variabel Mediasi. *EKOMA: Jurnal Ekonomi*, 4(2).
- Hair, J. F. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. [https://Books.Google.Co.Id/Books?hl=en&lr=&id=IFiarYXE1PoC&oi=fnd&pg=PR1&dq=Hair,+J.+F.+\(2014\).+A+primer+on+partial+least+squares+structural+equation+modeling+\(P](https://Books.Google.Co.Id/Books?hl=en&lr=&id=IFiarYXE1PoC&oi=fnd&pg=PR1&dq=Hair,+J.+F.+(2014).+A+primer+on+partial+least+squares+structural+equation+modeling+(P)

LS-SEM).+sage.+&ots=phNICW-

MWR&sig=Uoc_JET3lRcHvnDf85C0ll4NAjI&redir_esc=y#v=onepage&q&f=false.

- Hamidah, S. F., Pratama, R. A. R. J., & Permana, R. M. T. (2024). Analysis of Paylater Usage on Impulsive Buying Behavior. *Almana: Jurnal Manajemen Dan Bisnis*, 8, 187–193. <https://doi.org/10.36555/almana.v8i1.2514>
- Hanaysha, J. R., Ramadan, H. I., & Alhyasat, K. M. K. (2025). Exploring the impact of customer reviews, website quality, perceived service quality, and product assortment on online purchase intention: The mediating role of trust. *Telematics and Informatics Reports*, 19. <https://doi.org/10.1016/j.teler.2025.100236>
- Hayu, R. S., Surachman, Rofiq, A., & Rahayu, M. (2020). The effect of website quality and government regulations on online impulse buying behavior. *Management Science Letters*, 10(5), 961–968. <https://doi.org/10.5267/j.msl.2019.11.015>
- Hilmi, L. D., & Pratika, Y. (2021). PAYLATER FEATURE: IMPULSIVE BUYING DRIVER FOR E-COMMERCE IN INDONESIA. *Business and Accounting Research (IJEBAR) Peer Reviewed-International Journal*, 5. <https://jurnal.stie-aas.ac.id/index.php/IJEBAR>
- Huang, S. C., Silalahi, A. D. K., Eunike, I. J., & Riantama, D. (2024). Understanding impulse buying in E-commerce: The Big Five traits perspective and moderating effect of time pressure and emotions. *Telematics and Informatics Reports*, 15. <https://doi.org/10.1016/j.teler.2024.100157>
- Islamiyati, N. F., & Susantun, I. (2024). *View of Pengaruh celebrity worship dan penggunaan paylater terhadap perilaku impulsive buying pada penggemar K*. <https://Journal.Uii.Ac.Id/JKEK/Article/View/35961/17080>.
- Juita, V., Pujani, V., Rahim, R., & Rahayu, R. (2023). UNDERSTANDING IMPULSIVE BUYING BEHAVIOUR AMONG BUY NOW PAY LATER (BNPL) USERS AND ITS IMPLICATION FOR OVERCONSUMPTION AND THE ENVIRONMENT. *Management Analysis Journal*, 12(4). <http://maj.unnes.ac.id>
- Kang, J. W., & Namkung, Y. (2024). The Role of Service Quality Attributes and Perceived Value in US Consumers' Impulsive Buying Intentions for Fresh Food E-Commerce. *Journal of Theoretical and Applied Electronic Commerce Research*, 19, 1893–1906. <https://doi.org/10.3390/jtaer19030093>
- Kredivo. (2024). *Laporan Perilaku Pengguna PayLater Indonesia 2024*.
- Lia, D. A. Z., & Natswa, S. L. (2021). *Buy-Now-Pay-Later (BNPL): Generation Z's Dilemma on Impulsive Buying and Overconsumption Intention*.
- Liang, C. C., & Lin, Y. W. (2023). Online promotion effects under time limitation - A study of survey and physiological signals. *Decision Support Systems*, 170. <https://doi.org/10.1016/j.dss.2023.113963>
- Lubis, N., Harahap, A. Y., Tantawi, R., Aslami, N., Sitanggang, T. N., & Ekonomi, F. (2024). *Dampak Perkembangan Ekonomi Digital terhadap Pertumbuhan Sektor E-Commerce di Indonesia: Perspektif Teknologi, Konsumen, dan Regulasi*.
- Mardhotillah, R. R., & Wibawa, B. M. (2025). E-Service Quality Factors and Customer Satisfaction in Shopee's E-Commerce Platform. *Journal of Applied Management and Business*, 6(1), 22–34. <https://doi.org/10.37802/jamb.v6i1.1050>
- Nadhif Fuad, M., Hidayatullah, S., Dwi Yuniarto, A., & Rachma Kamila, E. (2026). *Pengaruh Flash Sale dan Limited-Time Offers terhadap Impulsive buying behavior pada Pengguna Shopee*. 3(1), 481–488. <https://doi.org/10.61722/jrme.v3i1.8378>

- Nathanel, E. K., & Budidharmanto, L. P. (2025). *PENGARUH HEDONIC MOTIVATION, DISPLAY PRODUCT, DAN TIME SCARCITY PROMOTION TERHADAP IMPULSIVE BUYING BEHAVIOR DI STARBUCKS SURABAYA*.
- Nugraha, F. A. (2025, August 6). *APJII catat tingkat penetrasi internet Indonesia capai 80,66 persen*. https://www.antaraneews.com/berita/5019229/apjii-catat-tingkat-penetrasi-internet-indonesia-capai-8066-persen?utm_source=chatgpt.com.
- Nusir, O. M., Wel, C. A. C., Hamid, S. N. A., Al-Zoubi, L., & Al-Adwan, A. S. (2026). The Psychology of BNPL: A Systematic Review of Impulsive Buying and Post-Purchase Regret (2018–2025). *Journal of Theoretical and Applied Electronic Commerce Research*, 21, 43. <https://doi.org/10.3390/jtaer21020043>
- Oberoi, N. (2024). *EPH-International Journal of Business & Management Science HOW CAN LIMITED-TIME DISCOUNTS (SUCH AS FLASH SALES AND LIMITED-TIME OFFERS) AFFECT THE URGENCY AND IMPULSIVE BUYING BEHAVIOR OF CONSUMERS?*
- Putri, A. R., Priyadi, U., & Candra Maulana. (2025). Analisis perilaku impulsif pembayaran paylater pada mahasiswa Universitas Islam Indonesia. *Jurnal Kebijakan Ekonomi Dan Keuangan*, 124–135. <https://doi.org/10.20885/jkek.vol3.iss2.art2>
- Putri, K. U. J. (2025, April). *[Update] Data e-commerce Indonesia: panduan lengkap*. Techinasia.
- Qalati, S. A., Vela, E. G., Li, W., Dakhan, S. A., Hong Thuy, T. T., & Merani, S. H. (2021). Effects of perceived service quality, website quality, and reputation on purchase intention: The mediating and moderating roles of trust and perceived risk in online shopping. *Cogent Business and Management*, 8(1). <https://doi.org/10.1080/23311975.2020.1869363>
- Rahmawati, I., & Setyowibowo, F. (2025). PENGARUH STIMULUS TERHADAP PEMBELIAN IMPULSIF MELALUI REAKSI KOGNITIF DAN AFEKTIF: KERANGKA KERJA STIMULUS-ORGANISM-RESPONSE (SOR). *Jurnal Pendidikan Ekonomi (JUPE)*, 13(3). <https://doi.org/10.26740/jupe.v13n3.p248>
- Rinonce, E. M., & Jannah, M. (2024). *Kecenderungan Online Impulsive Buying ditinjau dari Jenis Kelamin Online Impulsive Buying Tendencies in Terms of Gender*. <https://doi.org/10.26740/cjpp.v11i1.61024>
- Ruliya, I. M. D., Santoso, B., & Samsuryaningrum, I. P. (2024). How Time Limit Offers, Positive Emotions, and Hedonic Shopping Drive Impulse Purchase on Shopee. In *International Social Sciences and Humanities UMJember Proceeding Series* (Vol. 3). <http://proceeding.unmuhjember.ac.id/index.php/iss>
- Selvina Adhani, A., Nurhayati, & Mugiyati. (2025). SYSTEMATIC LITERATURE REVIEW (SLR): FENOMENA IMPULSIVE BUYING DALAM LAYANAN BUY NOW PAY LATER (BNPL) SHOPEE DARI PERSPEKTIF EKONOMI SYARIAH. *JURNAL ILMIAH EDUNOMIKA*, 9. <https://doi.org/10.29040/jie.v9i4.18289>
- Septiane, P. D. A., & Purmono, B. B. (2023). *THE INFLUENCE OF WEBSITE QUALITY AND PAY-LATER PAYMENT ON ONLINE IMPULSE BUYING WITH SHOPPING ENJOYMENT AS A MEDIATION VARIABLE (CASE ON GENERATION Z INDONESIAN SHOPEE CUSTOMERS)* (Vol. 65, Number 3). <https://journal.barasaki.com/index.php/jemba>
- Suyanto, B., Egalita, N., Sugihartati, R., Mas'udah, S., Savira, P. S., Anridho, C., & Syamsiyah, N. (2025). Young urban people's impulsive online shopping behavior and its financial literacy. *Cogent Social Sciences*, 11(1). <https://doi.org/10.1080/23311886.2024.2443553>

- Turkyilmaz, C. A., Erdem, S., & Uslu, A. (2015). The Effects of Personality Traits and Website Quality on Online Impulse Buying. *Procedia - Social and Behavioral Sciences*, 175, 98–105. <https://doi.org/10.1016/j.sbspro.2015.01.1179>
- Vernanda, P. A., Arrsyi, E. N., & Suryawati. (2025). *JURNAL TEKNOLOGI BUSANA DAN BOGA The Influence of Paylater Usage in E-Commerce on Impulsive Buying of Fashion Products* (Vol. 13, Number 1). <https://journal.unnes.ac.id/journals/teknobuga/index>
- Wu, Y., Xin, L., Li, D., Yu, J., & Guo, J. (2021). How does scarcity promotion lead to impulse purchase in the online market? A field experiment. *Information and Management*, 58. <https://doi.org/10.1016/j.im.2020.103283>
- Zhang, E. (2024). *How time pressure and fear of missing out affect impulse buying How time pressure and fear of missing out affect impulse buying under online time-limited promotions under online time-limited promotions.* <https://digital.car.chula.ac.th/chulaetdhttps://digital.car.chula.ac.th/chulaetd/73551>