Proceeding of International Business and Economic Conference (IBEC) Vol. 5 No. 1, pp. 247-262, November, 2026
http://conference.eka-prasetya.ac.id/index.php/ibec

Explaining Impulsive Buying in E-Commerce: Moderating Effects of Gender Role Orientation and Financial Literacy among Generation Z

Charles Luckyanto[1*], Sri Rezeki[2], Stephanie Prasetyo[3], Sharlen Lie[4]
Sekolah Tinggi Ilmu Ekonomi Eka Prasetya[1,3,4]
Jl. Merapi No.8, Pusat Ps., Kec. Medan Kota, Kota Medan, Sumatera Utara 20212

Universitas Negeri Medan[2]
Jl. William Iskandar Ps. V, Kenangan Baru, Kec. Percut Sei Tuan, Kabupaten Deli Serdang, Sumatera Utara 20221

*Corresponding author: charlesluckyanto4@gmail.com

ABSTRACT

This study examines the relationship between digital payment and impulsive buying and tests the moderating roles of gender role orientation and financial literacy among Generation Z e-commerce users. Survey data from 190 students at STIE Eka Prasetya were analyzed using PLS-SEM with SmartPLS 4. Digital Payment did not show a significant direct relationship with Impulsive Buying (β = −0.044; t = 0.581; p = 0.561). The interaction between Gender Role Orientation and Digital Payment was negative and significant (β = −0.159; t = 2.195; p = 0.028), while the interaction between Financial Literacy and Digital Payment was not significant (β = 0.061; t = 1.247; p = 0.213). The model explained 38.9% of the variance in Impulsive Buying. These findings suggest that the relationship between digital payment and impulsive buying varies with gender role orientation in this sample, whereas a moderating role of financial literacy was not established. The interpretation of the moderation effect depends on confirmation of the construct measures and the final model output.

Keywords: Digital Payment; Financial Literacy; Gender Role Orientation; Impulsive Buying; Generation Z.

INTRODUCTION

The advancement of digital technology has fundamentally reshaped commercial transactions through electronic commerce, commonly referred to as e-commerce. E-commerce facilitates consumers in conducting product research, making selections, submitting orders, and processing payments via the internet, thereby eliminating the necessity of physical store visits. As defined by Rezeki et al. (2023), electronic commerce represents the process of acquiring, distributing, or exchanging commodities, services, and information through computer networks. E-commerce has achieved substantial prevalence in contemporary markets. According to Statista (2026), the worldwide cross-border e-commerce sector is anticipated to generate US$3.88 trillion in revenue by 2026, with projections indicating growth to US$5.05 trillion by 2030.

This expansion demonstrates considerable alignment with Generation Z, characterized as digital natives who have developed within an environment of internet connectivity and digital innovation. The elevated internet consumption patterns observed among Generation Z substantially facilitate the adoption of e-commerce and digital payment mechanisms in routine commercial activities. Research conducted by Wafa (2026) demonstrates that Generation Z demonstrates extensive internet utilization, with 87.8% of this demographic incorporating internet usage into their daily routines. Data presented by Muhamad (2025) indicates that 30.34% of surveyed participants engage in online

purchasing transactions on a monthly basis, with Shopee emerging as the predominant e-commerce platform preferred by Generation Z consumers (Maheswara, 2026).

Impulsive purchasing behavior is characterized by the acquisition of products that consumers desire rather than require items that are not fundamentally necessary to them (Fransisca & Loo, 2025). According to Paramadina (2025), impulsive purchasing constitutes a spontaneous acquisition decision executed without deliberate preparation and frequently prompted by an intense emotional motivation. This behavioral pattern may be attributed to the collectivist cultural framework dominant in Indonesia; given that individuals within collectivist societies are readily susceptible to influence from family networks and social peers, they demonstrate heightened propensity toward impulsive purchasing compared to those from individualistic societies (Wang et al., 2022). This susceptibility is particularly pronounced among young individuals maintaining active social engagement, including university-enrolled students. Students employ digital payment systems because accessible promotional offerings, notably time-constrained flash sales, necessitate expedited transaction completion, enabling them to procure their preferred merchandise (Fitria et al., 2022).

A preliminary investigation involving 30 university students (18 male and 12 female) demonstrated that 67% of participants acknowledged engaging in frequent purchases with minimal deliberation, whereas 87% employed digital payment systems for their acquisitions. These initial observations suggest a propensity toward impulsive purchasing behavior and substantial digital payment adoption rates among the examined student population.

According to Wardhana et al. (2023), digital payment constitutes the electronic transfer of monetary resources between two parties including banks, commercial enterprises, governmental institutions, and private consumers as compensation for the provision of goods or services. Consumers who are drawn to incentive schemes provided by digital wallet platforms demonstrate a heightened propensity for making spontaneous purchases (Hayu & Arianto, 2023). In conventional cash-based transactions, the tangible exchange of currency functions as a concrete manifestation of expenditure, activating what scholars refer to as the "pain of paying"; in contrast, digital payment mechanisms including digital wallets, credit cards, and internet-based banking systems lack this physical dimension, thereby establishing a psychological separation from the spending transaction (Faraz & Anjum, 2025).

The adoption of digital payments has emerged as a fundamental component of contemporary daily activities. According to Bank Indonesia (2025), during the initial half of 2025, QRIS achieved 57 million active users and 39.3 million participating merchants, of which 93.16% represented MSMEs, processing 6.05 billion transactions with an aggregate value of IDR 579 trillion. These statistics underscore the progressively expanding penetration of digital payments throughout Indonesia. In relation to this investigation, the substantial prevalence of digital payment adoption is similarly reflected in findings from a preliminary survey administered to STIE Eka Prasetya students, wherein 87% of participants indicated utilizing digital payments for their purchase transactions.

The purchasing decisions of individuals are substantially influenced by gender. According to Steven & Sinaga (2025), gender constitutes socially constructed roles and responsibilities assigned to individuals. The Gender Inequality Index (GII) for Indonesia has been recorded at 0.402 (an increase of 0.019 points compared to 2024), indicating that while gender disparities persist within society, overall gender equality has demonstrated improvement relative to the previous year (Badan Pusat Statistik, 2026). Women demonstrate a tendency to allocate greater expenditures toward appearance enhancement including fashion items, cosmetics, and accessories and are frequently characterized as consumptive shoppers, as their acquisitions are predominantly motivated by aspirations for prestige and self-esteem (Rinonce & Jannah, 2024). Rosmaniar et al. (2022) says that while certain studies have identified women as the

predominant online shoppers, alternative research demonstrates that men exhibit a preference for technology-mediated shopping channels, attributing this inclination to the masculine associations embedded within technological systems: "computers embody authority, and authority within contemporary society must remain the purview of men." Additionally, given that empirical evidence has established that males and females maintain distinct apprehensions regarding online shopping and demonstrate divergent online shopping behavioral patterns, an investigation into gender-based distinctions across multiple hedonic shopping motivations in relation to compulsive online purchasing behavior would yield valuable insights.

According to Choerudin et al. (2023), financial literacy comprises the knowledge, competencies, beliefs, attitudes, and behavioral patterns that facilitate individuals in making informed decisions and administering their financial resources. The financial literacy rate, as measured by Indonesia's National Financial Inclusion Index, stands at 69.57% (an increase from 66.64% in 2025), indicating that out of every 100 individuals, only 69 possess an understanding of financial literacy (Otoritas Jasa Keuangan, 2025). Within this investigation, financial literacy is theorized to diminish the influence of digital payment convenience on impulsive purchasing, as individuals possessing elevated financial literacy are typically better positioned to formulate spending strategies and evaluate the financial ramifications prior to executing a purchase.

Chen et al. (2022) and Kasuma et al. (2024) established a gender-based role in impulsive purchasing behavior, whereas Ravenska & Zulvia (2022) detected no statistically significant variation attributable to gender. Inconsistencies similarly emerge regarding financial literacy; certain investigations position financial literacy as a mechanism capable of regulating purchasing conduct, while Panjaitan et al. (2026) demonstrated that financial literacy does not moderate the influence of fintech payments on impulsive purchasing. These contradictions present an opportunity to investigate both moderating variables concurrently among Generation Z university students engaged in e-commerce activities.

This research applies the Stimulus–Organism–Response model and Behavioral Life Cycle Theory to investigate how digital payments influence impulsive purchasing behavior and the extent to which financial literacy moderates this relationship. Accordingly, this study aims to contribute to theoretical advancement by synthesizing these two theoretical frameworks into a unified conceptual model. Previous scholarship on impulsive purchasing has predominantly concentrated on general consumer populations or broader e-commerce audiences. However, limited empirical investigation has been conducted specifically on Generation Z e-commerce consumers in Indonesia particularly university-enrolled students, who constitute the most prominent demographic of digital payment adopters.

LITERATURE REVIEW

Digital Payment

The Stimulus-Organism-Response framework, established by Mehrabian and Russell in 1974, proposes that an organism's (individual's) internal psychological states or behavioral responses are activated by external environmental factors (stimulus) (Mehrabian & Russell, 1974). The cognitive processing of these stimuli may transpire through conscious or unconscious mechanisms, encompassing the perception and cognitive interpretation of environmental conditions, which subsequently shapes an individual's affective states and decision-making processes (Hochreiter et al., 2023). Digital payment mechanisms can function as a stimulus that unconsciously motivates individuals to engage in purchasing activities.

According to (Fahimah & Harsono, 2023; Mubarak et al., 2022; Rizkiyah et al., 2021), digital payment constitutes a mechanism that facilitates the electronic transmission of monetary value or funds through digital infrastructure and communication networks. For

the purposes of this investigation, digital payment encompasses the utilization of electronic wallets, QRIS, mobile banking platforms, virtual account systems, and supplementary electronic payment methodologies employed in e-commerce commercial transactions.
As delineated by Rizkiyah et al. (2021), digital payment is evaluated through the dimensions of operational efficiency, service quality standards, perceived payment accessibility, perceived transaction velocity, perceived user satisfaction, security protocols, actual utilization patterns, and perceived utility value.

Impulsive Buying
The Theory of Planned Behavior (TPB) represents a psychological framework asserting that human conduct is fundamentally shaped by behavioral intention. This intention emerges from three essential components: individual attitude, subjective norms, and perceived behavioral control (Ajzen, 1991). TPB posits that an individual's behavior correlates with attitude, subjective norms, and perceived behavioral control. Nevertheless, given that impulsive buying transpires spontaneously and without deliberate planning, this theory can function only as a supplementary framework rather than a primary theoretical foundation if the TPB constructs are not assessed within the research model.
According to (Hafidz & Tamzil, 2021; Rusni & Solihin, 2022; Tumanggor et al., 2021), impulsive buying constitutes a purchasing decision executed spontaneously and devoid of advance planning; it originates from a transient impulse and is undertaken without thorough evaluation of requirements or the ramifications of the acquisition.
Based on Risal et al. (2024), the characteristics of impulsive buying encompass unplanned purchasing, insufficient deliberation regarding repercussions, abrupt desire precipitated by affective states, and inability to suppress such desire.

Gender Role Orientation
Gender represents one of the predominant segmentation approaches employed by marketing professionals (Humairoh et al., 2023). As the pool of prospective consumers expands, it becomes essential to investigate the moderating influence of gender, as a consumer attribute, to furnish meaningful theoretical insights for marketing scholarship (Huang et al., 2024).
Drawing from the perspectives of (Gultom, 2021; Halizah & Faralita, 2023; Lulu & Aniqurrohmah, 2023), gender denotes the distinctions between males and females concerning the roles, functions, entitlements, and obligations ascribed to them, which are established by sociocultural contexts.
Pursuant to Bem (1974), the dimensions of gender role orientation derived from the Bem Sex Role Inventory comprise masculinity and femininity.

Financial Literacy
Behavioral Life Cycle Theory proposes that individuals endeavor to equilibrate their consumption throughout their lifetime (Thaler & Shefrin, 1988). The theory indicates that individuals encounter difficulties in attaining rational, extended-term savings objectives owing to psychological biases. Financial literacy provides a remedy; it mitigates these biases, regulates spending patterns, and safeguards long-term financial security.
In this investigation, financial literacy is characterized as the degree of financial knowledge, competencies, self-assurance, perspectives, and practices that facilitate university students in administering income, budgeting expenditures, evaluating financial risks, and deliberating consequences prior to executing e-commerce transactions.
Drawing upon the perspectives of (Atikah & Kurniawan, 2021; Nikolaus et al., 2024; Novianta et al., 2024), financial literacy denotes an individual's comprehension and proficiencies which shape their financial perspectives and conduct that augment the

caliber of financial decision-making and stewardship, thereby advancing financial prosperity throughout communities.
Pursuant to the Otoritas Jasa Keuangan (2025), the constituents of financial literacy encompass knowledge, competencies, self-assurance, perspectives, and conduct.

Conceptual Synthesis of Grand Theory
Digital payment systems are progressively prevalent in contemporary daily activities. Accelerated advancements within the financial sector have catalyzed the proliferation of diverse digital payment mechanisms, permitting both remitters and recipients to employ digital platforms for monetary transfers (Khando et al., 2023). Digital payments modify consumer acquisition conduct by furnishing expedited and accessible payment mechanisms; this accessibility may stimulate unplanned acquisitions.

This postulation is substantiated by scholarly investigations (Bakar et al., 2025; Djamhari et al., 2024; Faraz & Anjum, 2025; Lee et al., 2022; Yuttama, 2025).

H_1: Digital payments have a positive effect on impulsive buying among Generation Z university students who use e-commerce.

Gender significantly influences individual behavior through environmental factors, leading to distinct variations in purchasing patterns between men and women. Women demonstrate a heightened propensity toward impulsive purchasing behavior, predominantly motivated by an acute apprehension of missing out (FOMO), hedonic shopping motivations, and consumerist tendencies (Chetioui & El Bouzidi, 2023). The availability of digital payment mechanisms, which provide transactional convenience, further facilitates such impulsive purchasing behavior.
This postulation is substantiated by scholarly investigations (Bai et al., 2025; Chen et al., 2022; Kasuma et al., 2024; Ravenska & Zulvia, 2022).

H_2: Gender role orientation moderates the relationship between digital payment and impulsive buying among Generation Z university students who use e-commerce.

Financial literacy serves as a protective mechanism against the inclination to engage in impulsive purchasing decisions. The utilization of digital payment instruments including digital wallets and deferred payment services on e-commerce platforms stimulates unplanned acquisitions owing to the streamlined nature of the transaction mechanism. Nevertheless, consumers possessing elevated financial literacy demonstrate enhanced capacity to regulate their expenditures and mitigate such impulsive tendencies.
This postulation is substantiated by scholarly investigations (Panjaitan et al., 2026; Tirtaatmadja et al., 2025; Yuttama, 2025).

H_3: Financial literacy weakens the positive influence of digital payment on impulsive buying among Generation Z university students who use e-commerce.

RESEARCH METHOD

This investigation was undertaken at the Eka Prasetya College of Economics (Sekolah Tinggi Ilmu Ekonomi Eka Prasetya), situated at Jl. Merapi No. 8, Pusat Pasar, Medan Kota District, Medan City, North Sumatra 20212, during the period from June through August 2026. The research employed a quantitative methodology. Statistical analysis was conducted utilizing SmartPLS 4, which encompassed the assessment of measurement models and structural models. A population is characterized as the collection of subjects within a defined geographic area and temporal period designated for observation or investigation by the researcher (Syamsuddin et al., 2023). The study population comprised 869 students enrolled in the Management and Accounting

departments at the Eka Prasetya College of Economics, representing cohorts from 2023 to 2025. The sample size determination incorporated considerations of model complexity, the quantity of predictors associated with the endogenous construct, anticipated effect magnitude, significance threshold, and statistical power. A minimum sample of 190 respondents was established to facilitate adequate examination of direct effects and moderation effects. Purposive sampling methodology was implemented as the selection technique; according to Sahir (2022), purposive sampling is executed according to predetermined criteria or specific considerations. Criteria for this research samplings are:

1. Students enrolled in Management and Accounting departments at the Eka Prasetya College of Economics
2. Students' generation 2023 untill 2025
3. Students who used digital payment products

RESULTS

A total of 190 respondents satisfied the research requirements and were deemed appropriate for participation in the analysis. Documentation of respondent characteristics is essential to delineate the sample composition and the context surrounding digital payment adoption among Generation Z university students.

Respondent Characteristics

Table 1.
Respondent Characteristics

Identity	Information	Frequency	%
Gender	Female	73	38.42%
	Male	117	61.58%
Departement	Management	120	63.16%
	Accounting	70	36.84%
Generation	2023	93	48.95%
	2024	54	28.42%
	2025	43	22.63%
Have used digital payment products	Yes	190	100%
	No	0	0.00%

Source: Research findings, 2026

According to Table 1, the preponderance of respondents identified as male (117 individuals; 61.58%), were enrolled in the Management Study Program (120 individuals; 63.16%), and belonged to the Class of 2023 (93 individuals; 48.95%). All 190 respondents had previously engaged with digital payment mechanisms.

Validity Test

Table 2.
Validity Test Results

Code	Construct	Loading
DP1	Digital payment	0.890
DP2		0.911
DP3		0.898
DP4		0.899
DP5		0.901
DP6		0.853
DP7		0.903
DP8		0.804
DP9		0.811
DP10		0.693
DP11		0.838
DP12		0.825
DP13		0.780
DP14		0.805
DP15		0.871
DP16		0.831
IB1	Impulsive buying	0.835
IB2		0.659
IB3		0.624
IB4		0.651
IB5		0.594
IB6		0.915
GRO1	Gender Role Orientation	0.841
GRO2		0.832
GRO3		0.811
GRO4		0.735
FL1	Financial literacy	0.903
FL2		0.891
FL3		0.902
FL4		0.885
FL5		0.812
FL6		0.797
FL7		0.894
FL8		0.855
FL9		0.886
FL10		0.946

Source: Research findings, 2026

According to Table 2, the preponderance of indicators demonstrate outer loadings exceeding 0.708. Five specific indicators, designated as DP10 and IB2–IB5, fall below this benchmark. These indicators were preserved within the final model, given the substantive relevance of their underlying statements alongside the reliability and AVE findings documented in Table 5. Consequently, stakeholders are afforded the opportunity to assess the complete measurement model outcomes, encompassing indicators with comparatively lower loadings.

Reliability Test

Table 3.
Reliability Test Results

Variable	Cronbach's Alpha	rho_A	Composite reliability	AVE	Results
Digital Payment	0.973	0.982	0.976	0.716	Reliable
Financial Literacy	0.967	0.970	0.971	0.771	Reliable
Gender Role Orientation	0.821	0.841	0.881	0.649	Reliable
Impulsive Buying	0.813	0.849	0.865	0.523	Reliable

Source: Research findings, 2026

The test findings demonstrate that all constructs exhibit Cronbach's alpha coefficients surpassing 0.70. Therefore, the indicators representing the four constructs manifest satisfactory internal consistency.

Table 4.
Heterotrait-Monotrait Ratio (HTMT)

	DP	FL	GRO	IB	FLxDP	GROxDP
DP						
FL	0.206					
GRO	0.467	0.215				
IB	0.294	0.380	0.597			
FLxDP	0.166	0.190	0.158	0.126		
GROxDP	0.398	0.161	0.215	0.298	0.183	

Source: Research findings, 2026

The HTMT test outcomes reveal that all inter-construct correlation values remain below 0.90. Accordingly, all variables demonstrate adequate discriminant validity, as each construct is confirmed to assess a unique phenomenon.

Table 5.
R Square

	R-square	R-square adjusted
Impulsive Buying	0.389	0.373

Source: Research findings, 2026

An R-square coefficient of 0.389 signifies that 38.9% of the variance in impulsive buying behavior can be collectively attributed to digital payment mechanisms and the variables and interaction mechanisms incorporated in the model. Conversely, the remaining 61.1% derives from determinants external to the research framework. An adjusted R-square coefficient of 0.373 indicates that, following adjustment for the quantity of predictors, the model's explanatory capacity reaches 37.3%.

Table 6.
Effect Size

	DP	FL	GRO	IB	FL x DP	GRO x DP
DP				0.002		
FL				0.105		
GRO				0.304		
IB						
FLxDP				0.008		
GROxDP				0.041		

Source: Research findings, 2026

Pursuant to Table 6, Digital Payment demonstrates a negligible effect magnitude on Impulsive Buying ($f^2 = 0.002$). Financial Literacy exhibits a modest effect magnitude ($f^2 = 0.105$), whereas Gender Role Orientation demonstrates a moderate effect magnitude ($f^2 = 0.304$). Concerning interaction mechanisms, FL × DP manifests a negligible effect magnitude ($f^2 = 0.008$), and GRO × DP exhibits a modest effect magnitude ($f^2 = 0.041$). The statistical significance of the relationships and moderation mechanisms is ascertained through the bootstrapping findings presented in Table 7.

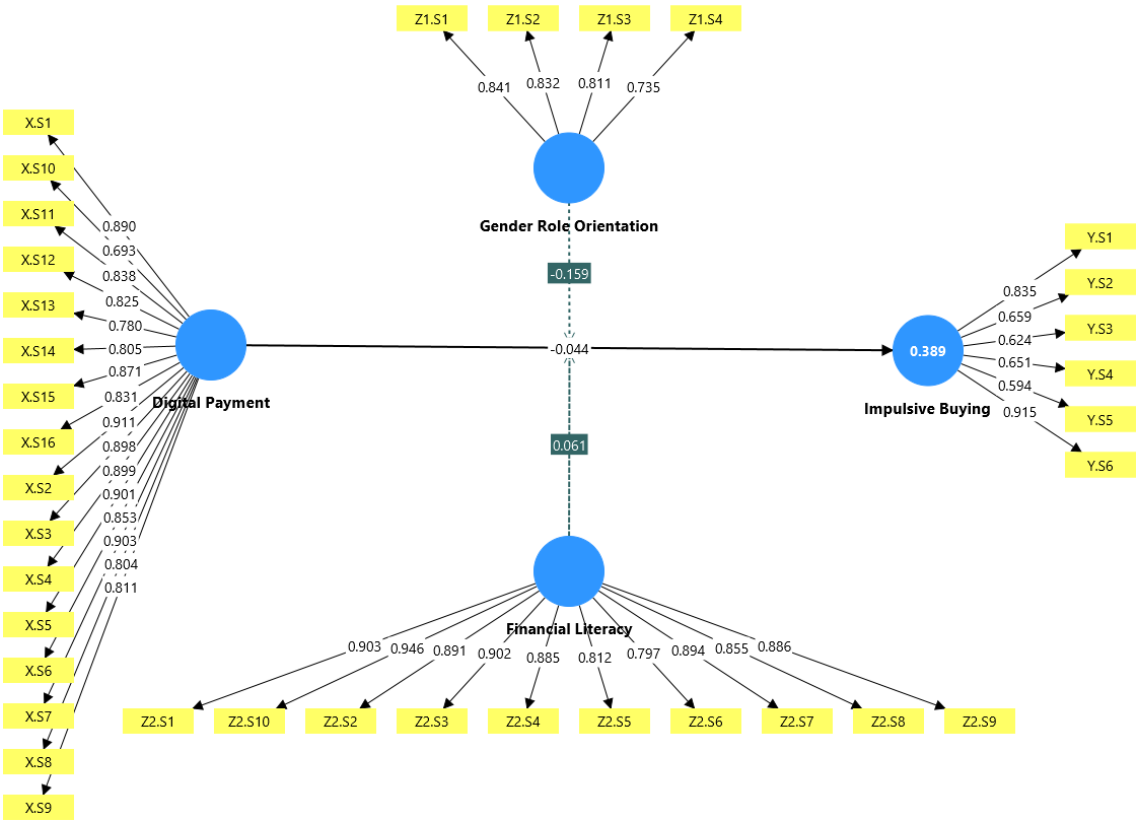


Figure 1. Hasil PLS Algorithm Model Penelitian
(Source: Research findings, 2026)

Figure 2 illustrates a direct path coefficient of −0.044 extending from Digital Payment to Impulsive Buying. The interaction coefficients are −0.159 for Gender Role Orientation × Digital Payment and 0.061 for Financial Literacy × Digital Payment. The significance of these are evaluated through Bootstrapping test as seen in Table 7.

Table 7.
Hypothesis test

	Original sample	Sample mean	Standard deviation	T statistics	P values
DP -> IB	-0.044	-0.040	0.076	0.581	0.561
FLxDP -> IB	0.061	0.059	0.049	1.247	0.213
GROxDP -> IB	-0.159	-0.159	0.073	2.195	0.028

Source: Research findings, 2026

Bootstrapping analyses demonstrate that Digital Payment lacks a statistically significant direct association with Impulsive Buying (β = −0.044; t = 0.581; p = 0.561); consequently, H_1 receives no empirical support. The moderating effect of Gender Role Orientation on the relationship between Digital Payment and Impulsive Buying is negative and statistically significant (β = −0.159; t = 2.195; p = 0.028); therefore, H_2 is supported. The

moderating effect of Financial Literacy on the relationship between Digital Payment and Impulsive Buying is positive yet fails to achieve statistical significance (β = 0.061; t = 1.247; p = 0.213); thus, H_3 receives no empirical support.

DISCUSSION

The Direct Relationship Between Digital Payment and Impulsive Buying

Digital payment demonstrates a direct negative relationship with impulse buying that does not reach statistical significance (β = −0.044; p = 0.561). As a result, this investigation yields insufficient evidence that digital payment perceptions directly influence impulse buying behavior in this sample. These outcomes diverge from findings reported by Djamhari et al. (2024), Faraz & Anjum (2025), Lee et al. (2022) and Yuttama (2025) but correspond with conclusions presented by Bakar et al. (2025). Variations in participant demographics, payment system characteristics, and purchasing environments may explain these discrepancies, although this study did not empirically examine these factors. The absence of statistical significance does not fundamentally undermine the validity of the S–O–R theoretical framework.

Gender role orientation moderates the influence of digital payments on impulsive buying in e-commerce.

The moderating effect of gender role orientation on digital payment demonstrates a negative relationship that achieves statistical significance (β = −0.159; t = 2.195; p = 0.028). This finding suggests that the estimated association between digital payment and impulsive buying strengthens in the negative direction as gender role orientation scores increase. The interpretation of elevated scores requires reference to the specific measurement instrument and its corresponding coding methodology. This moderation effect indicates no meaningful distinction between male and female respondents. The single-slope plot presented subsequently illustrates the moderating influence of gender role orientation on the digital payment–impulsive buying relationship.

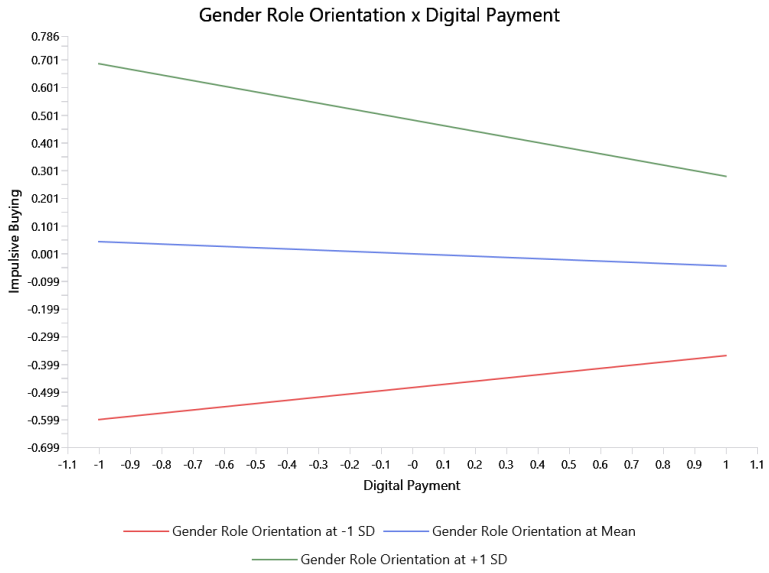


Figure 2. Simple Slope Plot for Gender Role Orientation
(Source: processed data)

The interaction coefficient for GRO × DP demonstrates a statistically significant negative relationship (β = −0.159; p = 0.028). This finding suggests that the association between digital payment adoption and impulsive purchasing behavior is contingent upon variations in gender role orientation scores. The interpretation of this orientation is

consistent with the phrasing of the survey items and the instrument's final coding scheme. Consequently, the negative coefficient (β = −0.159) indicates that Generation Z individuals who espouse egalitarian principles demonstrate greater rationality and critical judgment in their financial decision-making processes. Their convictions regarding equality and personal autonomy insulate them from gender-stereotyped shopping behaviors (including purchases motivated primarily by social or emotional factors); as a result, a pronounced egalitarian perspective reduces or suppresses the propensity toward impulsive buying on e-commerce platforms.
These results are consistent with the findings of Chen et al. (2022), Bai et al. (2025) and Kasuma et al. (2024) and but diverge from those of Ravenska & Zulvia (2022), who identified gender as a moderating variable. These variations may be attributable to differences in participant demographics, the particular payment systems investigated, and the regional setting of the investigation.

Financial literacy moderates the influence of digital payments on impulsive buying in e-commerce.
The interaction between financial literacy and digital payments produced a positive outcome; however, this result did not achieve statistical significance (β = 0.061; t = 1.247; p = 0.213). A plausible explanation is that although students may recognize the significance of budgeting, they remain susceptible to impulsive purchases when confronted with flash sales, cashback incentives, time-limited promotions, complimentary shipping, or exceptionally streamlined payment procedures. Therefore, possessing financial knowledge does not necessarily translate into the capacity for self-discipline in controlling expenditure patterns. Financial behavior and self-control mechanisms were not assessed in this investigation.
The present findings are consistent with the research conducted by Yuttama (2025) and Panjaitan et al. (2026),though they diverge from the conclusions presented by Tirtaatmadja et al. (2025). These inconsistencies may be attributable to differences in how financial literacy was operationalized, the demographic composition of study participants, the categories of digital payment systems examined, and the circumstances under which transactions occurred. The outcomes further suggest that financial literacy initiatives targeting university students should prioritize the development of sound financial behavior and enhanced self-control mechanisms, rather than concentrating exclusively on the expansion of financial knowledge.

CONCLUSION

This investigation evaluates the association between digital payments and impulsive purchasing tendencies among 190 Generation Z university students, while simultaneously assessing the moderating influences of gender role orientation and financial literacy. Digital payments demonstrated no statistically significant direct association with impulsive buying (β = −0.044; p = 0.561). Gender role orientation functioned as a significant moderator of this relationship, producing a negative interaction coefficient (β = −0.159; p = 0.028), whereas financial literacy did not exhibit a significant moderating influence (β = 0.061; p = 0.213). The analytical model accounts for 38.9% of the observed variance in impulsive buying behavior. These findings are specific to the particular operationalization of gender role orientation employed in this study and should not be construed as a direct comparison between male and female student populations. The conclusions are constrained by the restriction of the sample to students from a single educational institution and by the reliance on cross-sectional survey methodology. Subsequent investigations should consider additional consumer attributes and validate these moderation effects across more diverse and expansive samples.

RECOMMENDATION

Subsequent research endeavors should broaden the participant base and incorporate additional constructs including self-control, financial behavior, hedonic shopping motivation, and susceptibility to digital promotional campaigns. The adoption of a longitudinal research design would further facilitate the understanding of temporal variations in impulsive buying behavior.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Atikah, A., & Kurniawan, R. R. (2021). Pengaruh literasi keuangan, locus of control, dan financial self efficacy terhadap perilaku manajemen keuangan. *Jurnal Manajemen Dan Bisnis*, *10*(2), 284–297. https://doi.org/10.31000/jmb.v10i2.5132

Badan Pusat Statistik. (2026). *Nilai Indeks Ketimpangan Gender (IKG) Indonesia tercatat sebesar 0,402, menunjukkan perbaikan kesetaraan antara perempuan dan laki-laki untuk lebih sehat, berdaya, dan produktif.* https://www.bps.go.id/id/pressrelease/2026/05/05/2576/nilai-indeks-ketimpangan-gender--ikg--indonesia-tercatat-sebesar--0-402--menunjukkan-perbaikan-kesetaraan-antara-perempuan-dan--laki-laki-untuk-lebih-sehat--berdaya--dan-produktif-.html

Bai, Z., Xu, M., & Hu, J. (2025). Swipe, spend and splurge: exploring how mobile pay affects consumer overspending amid economic downturn and gender difference. *International Journal of Bank Marketing*, *43*(8), 1684–1704. https://doi.org/10.1108/IJBM-08-2024-0519

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. https://search.informit.org/doi/10.3316/informit.T2025012900005191866823380

Bank Indonesia. (2025). *QRIS Jelajah Indonesia 2025 Dorong Digitalisasi Dengan Wisata Budaya*. Bi.Go.Id. https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2717025.aspx

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *42*(2), 155–162. https://doi.org/10.1037/h0036215

Chen, O., Zhao, X., Ding, D., Zhang, Y., Zhou, H., & Liu, R. (2022). Borderline pathological celebrity worship and impulsive buying intent: mediating and moderating roles of empathy and gender. *Frontiers in Psychology*, *Volume 13*(1), 1–8. https://doi.org/10.3389/fpsyg.2022.823478

Chetioui, Y., & El Bouzidi, L. (2023). An investigation of the nexus between online impulsive buying and cognitive dissonance among Gen Z shoppers: Are female shoppers different? *Young Consumers: Insight and Ideas for Responsible Marketers*, *24*(4), 406–426. https://doi.org/10.1108/YC-06-2022-1548

Choerudin, A., Zulfachry, Widyaswati, R., Warpindyastuti, L. D., Khasanah, J. S. N., Harto, B., Oktaviani, N. F., Sohilauw, M. I., Lucky, N., Suharsono, J., & Paramita,

S. (2023). *Literasi Keuangan*. PT GLOBAL EKSEKUTIF TEKNOLOGI.

Djamhari, S. I., Mustika, M. D., Sjabadhyni, B., & Ndaru, A. R. P. (2024). Impulsive buying in the digital age: investigating the dynamics of sales promotion, FOMO, and digital payment methods. *Cogent Business & Management*, *11*(1), 2419484. https://doi.org/10.1080/23311975.2024.2419484

Fahimah, H. M., & Harsono, M. (2023). Literature review of the evolution of payment system paradigms: from cash to cashless with digital payment. *Social, Humanities, and Educational Studies (SHES): Conference Series*, *6*(3), 11–18. https://doi.org/10.20961/shes.v6i3.81553

Faraz, N., & Anjum, A. (2025). Spendception: the psychological impact of digital payments on consumer purchase behavior and impulse buying. *Behavioral Sciences*, *15*(3), 387. https://doi.org/10.3390/bs15030387

Fitria, E., Elvina, & Pitryani. (2022). Analisis penggunaan aplikasi Shopeepay Terhadap perilaku konsumtif mahasiswa manajemen Universitas Labuhanbatu. *ARBITRASE: Journal of Economics and Accounting*, *3*(2), 276–280. https://doi.org/10.47065/arbitrase.v3i2.481

Fransisca, C., & Loo, P. (2025). Analysis of fintech payment apps and hedonistic lifestyle on the impulsive buying habits to UNPRI Students (Impact on online shopping habits). *PROCEEDING INTERNATIONAL BUSINESS AND ECONOMICS CONFERENCE (IBEC)*, *4*(1), 229–239. https://doi.org/10.47663/ibec.v4i1.303

Gultom, M. (2021). Indikator kesetaraan gender dan isu-isu gender di bidang pendidikan. *Fiat Iustitia : Jurnal Hukum*, 1–8. https://doi.org/10.54367/fiat.v1i2.1149

Hafidz, G. P., & Tamzil, F. (2021). Faktor yang mempengaruhi impulse buying. *Jurnal Ekonomi*, *12*(2), 125–135. https://doi.org/10.47007/jeko.v12i02.4152

Halizah, L. R., & Faralita, E. (2023). Budaya patriaki dan kesejahteraan gender. *Wasaka Hukum*, *11*(1), 19–32. https://ojs.stihsa-bjm.ac.id/index.php/wasaka/article/view/84

Hayu, R. S., & Arianto, D. (2023). The Effect of Shopping Lifestyle, E-Payment and Free Shipping Promotion of Impulse Buying On TikTok Shop Users in Indonesia. *International Research Journal of Economics and Management Studies*, *2*(2), 10–15. https://irjems.org/irjems-v2i2p102.html

Hochreiter, V., Benedetto, C. A. Di, & Loesch, M. (2023). The Stimulus-Organism-Response (S-O-R) paradigm as a guiding principle in environmental psychology: comparison of its usage in consumer behavior and organizational culture and leadership theory. *Journal of Entrepreneurship and Business Development*, *3*(1), 7–16. https://doi.org/10.18775/jebd.31.5001

Huang, Q., Dastane, O., Cham, T.-H., & Cheah, J.-H. (2024). Is ‘she’ more impulsive (to pleasure) than ‘him’ during livestream e-commerce shopping? *Journal of Retailing and Consumer Services*, *78*(1), 103707. https://doi.org/10.1016/j.jretconser.2024.103707

Humairoh, H., Annas, M., & Zein, H. M. (2023). Gen Z, gender variabel dummy: hedonic shopping, lifestyle, dan impulse buying. *Jurnal Manajemen Dan Bisnis*, *12*(2), 107–120. https://doi.org/10.31000/jmb.v12i2.9423

Kasuma, P. A., Immanuel, D., & Dewi, Y. (2024). The impulse buying of gen-z in surabaya when using digital payment with gender as moderation. *Jurnal Aplikasi Manajemen*, *22*(4), 1015–1037. https://doi.org/10.21776/ub.jam.2024.022.04.07

Khando, K., Islam, M. S., & Gao, S. (2023). The Emerging Technologies of Digital Payments and Associated Challenges: A Systematic Literature Review. *Future Internet*, *15*(1), 21. https://doi.org/10.3390/fi15010021

Lee, Y. Y., Gan, C. L., & Liew, T. W. (2022). The impacts of mobile wallet app characteristics on online impulse buying: a moderated mediation model. *Human Behavior and Emerging Technologies*, *2022*(1), 2767735. https://doi.org/10.1155/2022/2767735

Lulu, S. F., & Aniqurrohmah. (2023). Kesetaraan gender dan nilai nilai yang terkandung di dalamnya menurut hak asasi manusia. *Jurnal Dunia Ilmu Hukum (JURDIKUM)*, *1*(2), 50–56. https://doi.org/10.59435/jurdikum.v1i2.170

Maheswara, R. (2026). *E-commerce terpopuler di indonesia awal 2026: pergeseran strategi pelaku usaha digital*. Dataloka.Id. https://dataloka.id/ekonomi/6435/e-commerce-terpopuler-di-indonesia-awal-2026-pergeseran-strategi-pelaku-usaha-digital/

Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. The MIT Press.

Mubarak, D. A., Akhmadi, M. H., & Wati, E. N. (2022). Implementasi sistem aplikasi pembayaran digital payment dalam pelaksanaan pembayaran berbasis cashless di masa pandemi Covid-19. *JURNAL MANAJEMEN KEUANGAN PUBLIK*, *6*(2), 115–122. https://doi.org/10.31092/jmkp.v6i2.1699

Muhamad, N. (2025). *E-Commerce yang sering diakses masyarakat indonesia pada 2025*. Databoks.Com. https://databoks.katadata.co.id/infografik/2025/08/19/e-commerce-yang-sering-diakses-masyarakat-indonesia-pada-2025

Nikolaus, K. F., Setiawan, A., & Djajadikerta, H. (2024). Pengaruh penggunaan metode pembayaran pay later dan financial literacy terhadap perilaku pembelian impulsif oleh pengguna E-commerce generasi Z di Indonesia. *Innovative: Journal Of Social Science Research*, *4*(3), 11274–11289. https://doi.org/10.31004/innovative.v4i3.11416

Novianta, E., Andani, A., Fahriadi, & Pane, S. (2024). Financial technology dan literasi keuangan terhadap Generasi Z. *Jurnal Ekonomika Dan Bisnis (JEBS)*, *4*(1), 1–8. https://doi.org/10.47233/jebs.v4i1.1423

Otoritas Jasa Keuangan. (2025). *Edukasi konsumen edisi Juni 2025*. http://sikapiuangmu.ojk.go.id/

Panjaitan, P., Azazi, A., Fitriana, A., Ristyawan, M. R., & Syahputri, A. (2026). Financial literacy as a moderator of the effects of fintech payment, income, and hedonic lifestyle on impulse buying among Generation Z. *Journal of Educational Management Research*, *5*(2), 2225–2240. https://doi.org/10.61987/jemr.v5i2.2014

Paramadina, S. G. (2025). *Konsep diri dan impulsive buying*. Gemilang Press Indonesia.

Ravenska, N., & Zulvia, P. (2022). Perilaku impulsive buying masyarakat Bandung Raya

pada masa pandemi Covid-19 berdasarkan perbedaan gender: Evaluasi program A-Life. *Jurnal Ilmiah Bisnis Dan Ekonomi Asia*, *16*(1), 15–26. https://doi.org/10.32815/jibeka.v16i1.133

Rezeki, S., Sukmayana, D., Mulyana, A., Syahreza, D. S., & Suryaman. (2023). *Pemasaran digital*. Mitra Cendekia Media.

Rinonce, E. M., & Jannah, M. (2024). Kecenderungan online impulsive buying ditinjau dari jenis kelamin. *Character Jurnal Penelitian Psikologi*, *11*(1), 156–164. https://doi.org/10.26740/cjpp.v11i1.61024

Risal, M., Savitri, I. S., Wardah, S., & Aprilianto, A. (2024). Peran mediasi impulse buying terhadap keragaman produk dan keputusan pembelian pada Eramart di Samarinda. *Jurnal Manajemen, Bisnis Dan Organisasi (JUMBO)*, *8*(1), 39–50. https://doi.org/10.33772/jumbo.v8i1.823

Rizkiyah, K., Nurmayanti, L., Machdy, R. D. N., & Yusuf, D. (2021). Pengaruh digital payment terhadap perilaku konsumen di era revolusi industri 4.0 (studi kasus pengguna platform digital payment OVO). *Management Insight: Jurnal Ilmiah Management*, *16*(1), 107–126. https://doi.org/10.33369/insight.16.1.107-126

Rosmaniar, A., Firmansyah, A., Fatihudin, D., & Faisal, M. (2022). Gen Z's gender, hedonic shopping motives and impulse buying. *Jurnal Akuntansi, Manajemen Dan Ekonomi*, *24*(2), 9–13. https://repository.um-surabaya.ac.id/id/eprint/8208/

Rusni, A., & Solihin, A. (2022). Pengaruh motivasi belanja hedonis, diskon harga dan tagline "gratis ongkir" terhadap keputusan pembelian impulsif secara online di Shopee. *Jurnal Ilmiah Manajemen Dan Bisnis*, *7*(2 SE-), 167–179. https://doi.org/10.38043/jimb.v7i2.3841

Sahir, S. H. (2022). *Metodologi penelitian*. Universitas Medan Area.

Statista. (2026). *eCommerce - Worldwide*. Statista.Com. https://www.statista.com/outlook/emo/ecommerce/worldwide/?srsltid=AfmBOopKqMDNNGAt52I7_aRZcShVibmmXjxTtJZA0DCiYh2943NRnJuJ

Steven, & Sinaga, H. D. E. (2025). Fostering environmentally conscious purchasing through ecological promotion: how gender and ecological awareness play a role at Pizza Hut. *PROCEEDING INTERNATIONAL BUSINESS AND ECONOMICS CONFERENCE (IBEC)*, *4*(1), 557–569. https://doi.org/10.47663/ibec.v4i1.341

Syamsuddin, N., Dewantara, R., Pramana, I. B. B. S. A., Sinaga, H. D. E., Maryati, D. E., Sitanggang, M. S., Maldin, S. A., Dahliani, L., Fatmawati, & Sebayang, Y. B. (2023). *Metode penelitian kuantitatif*. Sanabil.

Thaler, R., & Shefrin, H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry*, *26*(4), 609–643. https://doi.org/10.1111/j.1465-7295.1988.tb01520.x

Tirtaatmadja, M. S., Basadirina, N., & Utama, I. D. (2025). Digital financial literacy, risk perception, and impulsive behavior: investigating environment of buy now, pay later (BNPL) in online travel platforms. *2025 Tenth International Conference on Informatics and Computing (ICIC)*, 1–6. https://doi.org/10.1109/ICIC68054.2025.11309543

Tumanggor, S., Hadi, P., & Sembiring, R. (2021). Pembelian impulsif pada E-commerce

Shopee (Studi pada konsumen Shopee di Jakarta Selatan). *Perbanas Journal of Business and Banking*, *11*(2), 251–270. https://doi.org/10.14414/jbb.v11i2.2733

Wafa, I. (2026). *Penetrasi internet indonesia menurut generasi 2025, milenial dan gen z terdepan*. Goodstats.Id. https://data.goodstats.id/statistic/penetrasi-internet-indonesia-menurut-generasi-2025-milenial-dan-gen-z-terdepan-jw8fn

Wang, Y., Pan, J., Xu, Y., Luo, J., & Wu, Y. (2022). The determinants of impulsive buying behavior in electronic commerce. *Sustainability*, *14*(12), 7500. https://doi.org/10.3390/su14127500

Wardhana, A., Pradana, M., Kartawinata, B. R., & Akbar, A. (2023). *Financial technology 4.0 Indonesia perspective 2023*. Eureka Media Aksara.

Yuttama, F. R. (2025). Behavioral shifts in digital finance: how e-payment influences consumer spending and financial literacy. *Journal of Management and Entrepreneurship Research*, *6*(4), 358–371. https://doi.org/10.34001/jmer.2025.12.06.4-80