Quest Journals
Journal of Research in Business and Management
Volume 14 ~ Issue 8 (August 2026) pp: 101-111
ISSN(Online):2347-3002
www.questjournals.org

Research Paper

Factors Influencing Impulsive Buying Behavior (A Study of Generation Z Consumers in Semarang City)

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ABSTRACT: *This study investigates the effect of digital payment, fear of missing out (FOMO), social media marketing and digital finance literacy toward impulsive buying behavior among generation Z consumers in Semarang city. Driven by rapid advances in social media and digital platforms, generation Z consumers increasingly display impulsive buying habits on e-commerce sites. Employing a quantitative research design, data were collected from 100 respondents through online questionnaire and analyzed using multiple linear regression that was run by IBM SPSS Statistics 25. The measurement model shows high reliability and validity across all constructs, confirming the robustness of the data. The findings reveal that digital payments, fear of missing out (FOMO)and social media marketing has significant positive effects on impulse buying behavior while digital finance literacy has not. These result highlights that fear of missing out (FOMO) has a greater dominant effect on impulse buying behavior than digital finance literacy. It means that eventhough the generation Z consumers in Semarang city has a good digital finance literacy, but it has not a significance effect on impulse buying behavior. The study also highlights that generations Z consumers in Semarang are highly engaged with social media. They are more interested in social media marketing and the ease of digital payment made them have not enough self control toward impulsive buying behavior. Therefore, it is important for generation Z consumers in Semarang to have self control enough on impulsive buying behavior.*

KEYWORDS: *digital payment, fear of missing out, social media marketing, digital finance literacy, impulsive buying behavior.*

*Received 14 Aug., 2026; **R**evised 28 Aug., 2026; **A**ccepted 30 Aug., 2026 © The author(s) 2026.*
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I. INTRODUCTION

Digital transformation continues to evolve, significantly altering how people conduct their daily activities. The internet and social media are no longer used solely for communication and recreation; they have transformed into marketing channels and digital commerce platforms (social commerce). One social media platform experiencing rapid growth today is TikTok. According to 2025 data from DataReportal (We Are Social & Meltwater), TikTok boasts the highest average daily usage time, reaching 1 hour and 53 minutes per day (Kemp, 2025). Features such as live shopping, promotions, product reviews, and real-time interaction have established TikTok Shop as a widely used digital shopping platform (Widodo, 2024).

Source: Populix, 2023
Figure 1
Shopping Behavior of Indonesians During the Promotion Period

The rapid growth of TikTok Shop has contributed to shifting consumer shopping habits. A Populix survey (2023) reveals that TikTok Shop—as a social commerce platform—was adopted by 57% of Indonesians during promotional periods, a higher adoption rate than that of Instagram Shop, WhatsApp, or Facebook. Concurrently, digital payment methods have become the preferred choice for consumers; e-wallet usage reached 48%, followed by cash on delivery (COD), bank transfers, and digital banking. These trends demonstrate that the convenience of digital transactions has become a crucial element of online shopping, offering a payment process that is fast, practical, and efficient. The integration of digital platforms with electronic payment systems further simplifies transactions for consumers, potentially increasing the propensity for instant purchasing. This is supported by studies conducted by Amini & Rahmawati (2025), Fitriyani et al. (2025), and Pratiwi et al. (2025). Conversely, these results differ from the findings of Fauziyah et al. (2022) and Ramdhani et al. (2025), which indicate that cashless payments do not influence impulsive buying behavior.

Beyond the convenience of digital payments, a psychological factor believed to influence impulsive buying behavior is the "fear of missing out" (FOMO). According to Przybylski et al. (2013), FOMO is the anxiety experienced when an individual feels they are missing out on information, trends, or experiences that others are enjoying. This situation drives consumers to make immediate purchases to avoid missing out on ongoing promotions or trends. Research by Amini & Rahmawati (2025), Asyifa et al. (2024), Djamhari et al. (2024), Febiana & Sutedjo (2025), Fitriyani et al. (2025), Rafiah et al. (2025), Ramadhany & Lestari (2025), Ramdhani et al. (2025), and Utomo et al. (2025) and Widodo (2024) revealed that FOMO influences impulsive buying behavior. Conversely, Christin et al. (2025) and Falajunah & Dewi (2025) stated that there is no influence of FOMO on impulsive buying behavior.

Social media promotion also plays a role in driving impulsive buying behavior. Research by Ayunda & Siregar (2023), Maharani et al. (2025), and Purwanto et al. (2025) demonstrated a positive influence of social media marketing on impulsive buying behavior. However, studies conducted by Dina & Marlien (2023), Ramadhany & Lestari (2025), and Tambun et al. (2024) yielded different findings, indicating no influence of social media marketing on impulsive buying behavior.

In addition to the three factors mentioned above, digital financial literacy is another factor that plays a role in determining impulsive buying behavior. Generally, digital financial literacy has a negative influence on impulsive buying behavior; the higher an individual's understanding of digital finance, the better their ability to exercise self-control regarding unplanned online shopping. However, some previous studies examining the impact of digital financial literacy have shown conflicting results. Research by Pratama and Maipita (2026) indicated that digital financial literacy has a significant negative effect on impulsive buying behavior, whereas research by Mulyani, L., Nasiruddin, N., Roni, R., & Dumadi, D. (2026) showed that digital financial literacy has no effect on impulsive buying behavior.

Given the rising phenomenon of social media usage among the public and the discrepancies in previous research findings, further study is required regarding the factors influencing impulsive buying behavior, particularly among Generation Z consumers in Semarang. This research aims to identify the factors influencing impulsive buying behavior—specifically within Generation Z—so that businesses can subsequently design appropriate marketing strategies, while consumers can gain a better understanding of the extent of their own impulsive buying behavior.

II. LITERATURE REVIEW

This study draws upon the Theory of Planned Behavior (TPB) and the Stimulus-Organism-Response (S-O-R) framework proposed by Mehrabian & Russell (1974) as a theoretical basis to explain the impulsive shopping behavior of Generation Z in Semarang. According to Ajzen (1991), the Theory of Planned Behavior posits that individual behavior is driven by behavioral intention, which in turn arises from three key factors: perceived behavioral control, attitude toward the behavior, and subjective norms. In this study, the ease of digital payment and digital financial literacy are posited to enhance perceived behavioral control, whereas FOMO and social media marketing shape the attitudes and subjective norms that foster impulsive shopping behavior.

Engel et al. (2006) state that impulsive purchasing occurs when consumers make sudden purchases without deep deliberation. This behavior is driven by the influence of both internal and external environmental factors. Internal influences originate from the consumer themselves—such as financial literacy levels, self-control, and FOMO (the anxiety of missing out on ongoing changes or developments)—while external factors stem from the surrounding environment, such as the evolution of social media marketing and the convenience of digital payment methods. According to Marlina et al. (2025), cashless payment refers to a method utilizing electronic money as the payment instrument and digital wallet applications as the legitimate medium for transaction; meanwhile, FOMO is defined as an individual's anxiety about missing out on valuable or enjoyable experiences that others are undergoing (Przybylski et al., 2013). Social media marketing encompasses all forms of direct or indirect marketing used to build awareness, recognition, and action regarding a brand, business, product, person, or other entity, utilizing social web tools such as blogging, microblogging, social networking, social bookmarking, and content sharing (Gunelius, 2011: 10). As social media marketing continues to grow, its impact on consumers—particularly regarding shopping behavior—also intensifies. Digital payment is a cashless transaction method for transferring funds from a payer to a recipient via various channels, such as mobile banking, e-wallets, bank cards, QRIS, and "pay-later" services. The advent of digital payments offers convenience, speed, and efficiency in transactions. However, it can also diminish consumer awareness of spending amounts, thereby increasing the tendency for impulsive purchases. The easier the payment process, the lower the perceived barrier for consumers when deciding to purchase a product. In digital shopping activities, FOMO (Fear of Missing Out) often arises due to exposure to promotions, limited-time discounts, viral trends, and influencer recommendations on social media. Digital financial literacy also plays a role in influencing consumer purchasing behavior. In this context, digital financial literacy refers to an individual's ability to understand and manage finances wisely within a digital environment. Individuals with strong digital financial literacy tend to be capable of planning expenses, distinguishing between needs and wants, and considering financial implications before making a purchase. The greater a person's understanding of digital financial literacy, the better their ability to exercise self-control regarding unplanned online shopping.

III. HYPOTHESIS DEVELOPMENT

Based on the theoretical review above, this study establishes a conceptual framework to explain the factors influencing impulsive buying behavior, using the following research model:

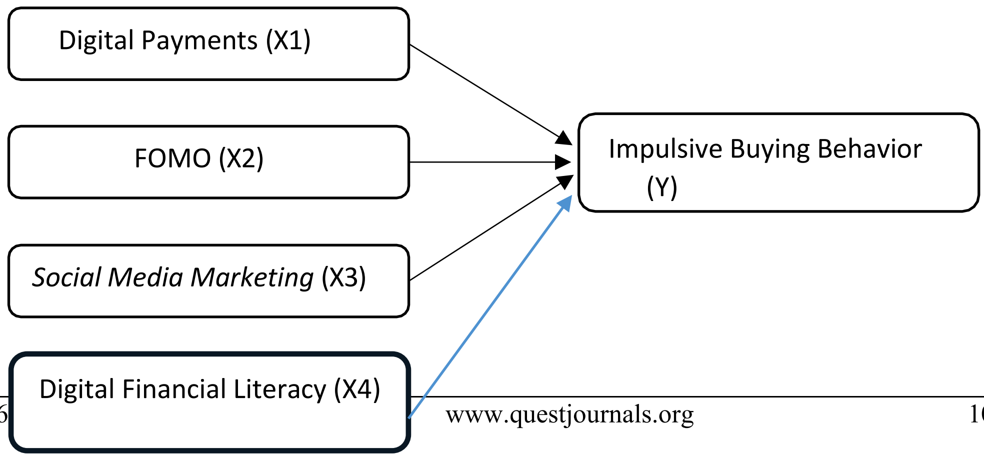

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FIGURE 2: CONCEPTUAL FRAMEWORK

Figure 2 above illustrates the conceptual framework linking three (3) independent variables—digital payments (X1), fear of missing out (FOMO) (X2), social media marketing (X3), and digital financial literacy (X4)—to the dependent variable, impulsive buying behavior (Y). Based on the theoretical review and findings from previous studies, four (4) hypotheses have been developed for testing in this research, as follows:

1. The Relationship Between Digital Payments and Impulsive Buying Behavior.

According to Marlina et al. (2025), digital payments—or cashless payments—refer to payment methods utilizing electronic money as the payment instrument and digital wallet applications as the legitimate medium for transactions. Digital payments offer convenience, speed, and efficiency, thereby increasing the likelihood of consumers engaging in impulsive buying. Based on the Stimulus-Organism-Response (SOR) theory, digital payments act as a stimulus that influences the consumer's psychological state (Organism), subsequently triggering a response in the form of impulsive buying behavior (Response). Furthermore, the Theory of Planned Behavior explains that an individual's behavior is influenced by intentions formed through perceptions of ease and behavioral control. The greater the ease of using digital payments, the higher the consumer's perceived control over transactions, which in turn increases the tendency toward impulsive buying behavior. This is supported by findings from studies conducted by Amini & Rahmawati (2025), Fitriyani et al. (2025), and Pratiwi et al. (2025), which demonstrate that digital payments influence impulsive buying behavior. Based on this empirical evidence, the first hypothesis (H1) for this study is formulated as follows:

H1: Digital payments have a positive effect on impulsive buying behavior.

2. The Relationship Between Fear of Missing Out (FOMO) and Impulsive Buying Behavior.

According to Przybylski et al. (2013), Fear of Missing Out (FOMO) is a marketing phenomenon defined as an individual's anxiety about missing out on valuable or enjoyable experiences that others are having. Based on the Stimulus-Organism-Response (SOR) theory, FOMO acts as the "organism"—an internal psychological state characterized by anxiety, the fear of being left behind, and an emotional drive to follow trends—triggered by a stimulus, which subsequently results in a response in the form of impulsive buying behavior. This is supported by findings from studies conducted by Amini & Rahmawati (2025), Asyifa et al. (2024), Djamhari et al. (2024), Febiana & Sutedjo (2025), Fitriyani et al. (2025), and Rafiah et al. (2025), all of which demonstrate that FOMO has a positive effect on impulsive buying behavior. Similarly, research by Ramadhany & Lestari (2025), Ramdhani et al. (2025), Utomo et al. (2025), and Widodo (2024) indicates that FOMO positively influences impulsive buying behavior. Based on this, the second hypothesis for this study is formulated as follows:

H2: Fear of Missing Out (FOMO) has a positive effect on impulsive buying behavior.

3. The Relationship Between Social Media Marketing and Impulsive Buying Behavior.

The rapid growth of social media—through popular platforms such as TikTok, Instagram, Facebook, X, Threads, YouTube, and WhatsApp—has led to widespread public use for communication, information seeking, trend-following, and interaction with various brands and businesses. These platforms have established social media as an effective marketing tool for influencing consumer behavior, including driving impulsive buying. Within the Stimulus-Organism-Response (SOR) framework, social media marketing serves as the stimulus that influences the consumer's internal state, thereby eliciting a response in the form of impulsive buying behavior. Furthermore, the Theory of Planned Behavior explains that individual behavior is influenced by intentions formed through subjective norms. In the context of social media, subjective norms can arise from the influence of peers, influencers, or emerging trends, thereby encouraging consumers to purchase specific products. This relationship is supported by previous studies conducted by Ayunda & Siregar (2023), Maharani et al. (2025), and Purwanto et al. (2025), which demonstrate that social media marketing has a positive effect on impulsive buying behavior. Based on this, the third hypothesis is formulated as follows:

H3: Social media marketing has a positive effect on impulsive buying behavior.

4. The Relationship Between Digital Financial Literacy and Impulsive Buying Behavior.

Digital financial literacy refers to an individual's ability to understand and manage finances wisely within a digital environment. Individuals with high digital financial literacy tend to be capable of planning their spending, distinguishing between needs and wants, and considering financial implications before making a purchase. Consequently, higher levels of digital financial literacy among consumers tend to reduce impulsive buying behavior. This is supported by research findings from Pratama and Maipita (2026), which demonstrate that digital financial literacy has a negative effect on impulsive buying behavior. Based on this, Hypothesis 4 (H4) is formulated for this study as follows:

H4: Digital financial literacy has a negative effect on impulsive buying behavior.

IV. RESEARCH METHODS

The population for this study consists of Gen Z consumers who use social media applications in Semarang City. A sample of 100 respondents was selected using purposive sampling based on the following criteria: Gen Z consumers aged 14–29, residing in Semarang City, possessing a social media account (specifically TikTok), and having engaged in online shopping. This is a quantitative study in which data were collected via an online questionnaire distributed using Google Forms.

In addition to primary data collected through the online questionnaire, this study utilizes secondary data. The secondary data covers respondent demographics and their responses regarding the variables tested in the study, measured using a 1–5 Likert scale. The Likert scale usage is detailed below:

Table 1
Likert Scale Usage

No.	Response Category	Score
1.	Strongly Disagree (STS)	1
2.	Disagree (TS)	2
3.	Neutral (N)	3
4.	Agree (S)	4
5.	Strongly Agree (SS)	5

Secondary data were obtained through literature reviews and online research to gather clearer information on social media trends and consumer shopping behavior. Once the primary data were collected, data quality was assessed through validity and reliability tests. Validity testing was conducted using Confirmatory Factor Analysis (CFA); an instrument is considered valid if it has a loading factor > 0.4 (Ghozali, 2021:66). Reliability testing was performed by measuring the Cronbach's Alpha value; an instrument is considered reliable if the Cronbach's Alpha value is > 0.7 (Ghozali, 2018:46). Finally, hypothesis testing was conducted using multiple linear regression analysis. This analysis was used to examine the influence of independent variables (digital payment, FOMO, social media marketing, and digital financial literacy) on the dependent variable: impulsive shopping behavior. The decision-making criteria for the t-test are as follows: if the significance value is less than 0.05 or the calculated t-value is greater than the t-table value, then the independent variable has a partial effect on the dependent variable. Conversely, if the significance value is greater than 0.05 or the calculated t-value is less than the t-table value, then the independent variable does not have a partial effect on the dependent variable (Ghozali, 2018:99).

V. RESULTS AND DISCUSSION

Respondent Characteristics

Based on the established sample criteria, 100 respondents were obtained; these individuals are Generation Z consumers and social media users in Semarang City. Their characteristics are presented in Table 1 below:

Table 2
Respondent Characteristics

I.

Criteria		Amount	Percentage
Gender	Male	23	23%
	Female	77	77%
Age	14 – 18 Tahun	5	5%
	19 – 23 Tahun	76	76%
	24 – 29 Tahun	19	19%
Work	Student	56	56%
	Private Sector Employee	5	5%
	Entrepreneur	13	13%
	Private Sector Employee	24	24%
	Civil Servant	2	2%

	Other	5	5%
Income	< Rp. 1.000.000	20	20%
	> Rp. 1.000.000 – Rp. 2.000.000	31	31%
	> Rp. 2.000.000 – Rp. 3.000.000	14	14%
	> Rp. 3.000.000 – Rp. 4.000.000	17	17%
	> Rp. 4.000.000	18	18%
Frekuensi Pembelian	1 – 2 Kali	33	33%
	3 – 5 Kali	43	43%
	6 – 10 Kali	18	18%
	Lebih dari 10 Kali	6	6%

Based on Table 1 above, it can be seen that the majority of respondents in this study were female, totaling 77 individuals (77%). Regarding age, the majority of respondents fell within the 19–23 age range, totaling 76 individuals (76%). In terms of occupation, the majority were students (including university students), totaling 56 individuals (56%), while regarding income, the majority fell within the range of above Rp1,000,000 to Rp2,000,000 (31%). Furthermore, the most common purchase frequency among respondents was 3–5 times within the last month (reported by 43 individuals). This indicates that the respondents in this study were quite active in making online purchases via social media or e-commerce platforms.

Validity Test

Table 3
Instrument Validity Test Results

Variabel	**Indikator**	**Nilai KMO (>0,5)**	***Loading Factor* (>0,4)**	**Keterangan**
Pembayaran Digital (X1)	X1.1	0,900	0,899	Valid
	X1.2		0,940	
	X1.3		0,923	
	X1.4		0,913	
	X1.5		0,890	
Fear Of Missing Out (X2)	X2.1	0,754	0,919	Valid
	X2.2		0,927	
	X2.3		0,910	
Social Media Marketing (X3)	X3.1	0,845	0,887	Valid
	X3.2		0,894	
	X3.3		0,913	
	X3.4		0,864	
LliteraLiLiLLyyyy Literasi Keuangan Digital (X4)	X4.1 X4.2 X4.3 X4.4 X4.5	0,877	0,738 0.683 0,676 0,674 0,692	Valid
Perilaku Pembelian Impulsif (Y1)	Y1.1	0,843	0,901	Valid
	Y1.2		0,946	
	Y1.2		0,908	
	Y1.3		0,919	

Validity testing was conducted using factor analysis by examining the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and factor loadings. An instrument is considered valid if it has a KMO value > 0.5 and a factor loading > 0.4 (Ghozali, 2018). Based on the validity test output in Table 3 above, it can be seen that the variables of digital payment (X1), fear of missing out (X2), social media marketing (X3), digital financial literacy (X4), and impulsive buying behavior (Y1) each have a KMO value > 0.5. This indicates that the sample adequacy requirement for this study has been met. Furthermore, all indicators for each variable have factor loading values above 0.4; thus, the instrument is deemed valid.

Reliability Test

Table 4
Reliability Test Results

Variabel	*Cronbach's Alpha Based on Std. Item*	Nilai Standar	Keterangan
Pembayaran digital (X1)	0,950	> 0,70	Reliabel
Fear of missing out (X2)	0,908		Reliabel
Social media marketing (X3)	0.912		Reliabel
Literasi keuangan digital (X4)	0,889		Reliabel
Perilaku pembelian impulsif (Y1)	0,938		Reliabel

Reliability testing was conducted to measure the degree of consistency of the research instrument. Based on the Cronbach's alpha criterion, an instrument is considered reliable if it yields a Cronbach's alpha value greater than 0.70 (Ghozali, 2018). The reliability test results presented in Table 4 above indicate that the digital payment variable (X1) has a Cronbach's alpha value of 0.950; the fear of missing out variable (X2) is 0.908; and social media marketing (X3) is 0.912. The digital financial literacy variable (X4) has a Cronbach's alpha value of 0.889, while the impulsive buying behavior variable (Y) is 0.938. Consequently, the research instrument is deemed reliable, as the Cronbach's alpha values meet the requirement of being above 0.7.

Multiple Linear Regression Analysis

Table 5
Multiple Linear Regression Analysis Output

Model	Variabel *Independent*	*Standardized Coefdicients*	Sig.	Hypothesis Test Results
Persamaan antara X1, X2, X3 dan X4 terhadap Y	Pembayaran Digital (X1)	0,306	0,000	H1 Accepted
	Fear Of Missing Out (X2)	0,329		H2 Accepted
	Social Media Marketing (X3)	0,307		H3 Accepted
	Literasi keuangan digital (X4)	0,081	0,327	
	Variabel *Dependent* : Perilaku Pembelian Impulsif (Y) *Adjusted R Square* (R^2) = 0,337 F = 13,582 Sig = 0,000			

Based on the regression analysis output presented in Table 5 above, the regression equation can be formulated as follows: $Y = 0.306X1 + 0.329X2 + 0.307X3 + 0.081X4 + e$. This equation indicates that all independent variables—namely digital payment (X1), fear of missing out (X2), social media marketing (X3), and digital financial literacy (X4)—have a positive influence on impulsive buying behavior (Y). Among these four independent variables, the "fear of missing out" variable (X2) exerts the most dominant influence, indicated by a beta coefficient (β2) of 0.329; this is followed by social media marketing (β3 = 0.307), digital payment (β1 = 0.306), and digital financial literacy (β4 = 0.081).

Model Fit Test
Coefficient of Determination Test (R^2)
Based on the coefficient of determination calculation output in Table 5 above, the Adjusted R^2 value is 0.337. This indicates that the variables of digital payment (X1), fear of missing out (X2), social media marketing (X3), and digital financial literacy (X4) collectively explain 33.7% of the variation in impulsive buying behavior (Y), while the remaining 66.3% is influenced by other variables not examined in this study.
F-Test
The F-test regression output in Table 5 above shows a calculated F-value of 13.582 with a significance level of 0.000 (< 0.05). This indicates that the variables of digital payment (X1), fear of missing out (X2), social media marketing (X3), and digital financial literacy (X4) simultaneously influence impulsive buying behavior (Y).
Hypothesis Testing
t-test
H1: Digital payment has a positive effect on impulsive buying behavior.
Based on the regression output summarized in Table 5 above, the regression coefficient for the digital payment variable (X1) is 0.306, with a significance value of 0.000 (< 0.05). Thus, Hypothesis 1 (H1) is accepted, meaning that digital payment (X1) has a significant positive effect on impulsive buying behavior (Y). The ease and practicality of transacting via digital financial platforms trigger Generation Z consumers in Semarang to make unplanned purchases. This finding aligns with research conducted by Pratiwi et al. (2025), Amini and Rahmawati (2025), and Fitriyani et al. (2025), all of which demonstrate that digital payment has a significant positive effect on impulsive buying behavior. Generation Z was born during an era of rapid technological advancement, making them highly familiar with and "tech-savvy" regarding technology. The conveniences offered by various digital payment platforms encourage impulsive buying behavior.
H2: Fear of Missing Out has a positive effect on impulsive buying behavior.

Based on the regression output summarized in Table 5 above, the regression coefficient for the "fear of missing out" variable (X2) is 0.329, with a significance value of 0.000 (< 0.05). Thus, Hypothesis 2 (H2) is accepted, meaning that the fear of missing out (X2) has a significant positive effect on impulsive buying behavior (Y). This implies that the greater the intensity of FOMO experienced by consumers, the higher the intensity of their impulsive buying. The respondents in this study were predominantly students, who generally possess extensive social circles and active social lives. The fear of being left behind or "ostracized" if they fail to keep up with current developments creates a sense of urgency to make immediate purchases, ensuring they do not miss out on promotions, discounts, and trending items. This finding is supported by numerous prior studies, including those by Djamhari et al. (2024), Amini & Rahmawati (2025), Fitriyani et al. (2025), Rafiah et al. (2025), and Febiana & Sutedjo (2025). Similarly, research conducted by Asyifa et al. (2024), Utomo et al. (2025), Ramdhani et al. (2025), Ramadhany & Lestari (2025), and Widodo (2023) also demonstrates that the "fear of missing out" has a significant positive effect on impulsive buying behavior.

H3: Social Media Marketing Has a Positive Effect on Impulsive Buying Behavior. Based on the regression analysis output shown in Table 5, the regression coefficient for the social media marketing variable (H3) is 0.307, with a significance value of 0.000 (< 0.05). Thus, Hypothesis 3 (H3) is accepted, indicating that social media marketing has a significant positive effect on impulsive buying behavior. This finding aligns with previous research by Ayunda & Siregar (2023), Maharani et al. (2025), and Purwanto et al. (2025), which demonstrated that social media marketing has a significant positive impact on impulsive buying behavior. Generation Z is a generation familiar with social media. As more social media platforms also serve as marketing channels, promotional activities utilizing these platforms increase. The more time Generation Z consumers spend connected to social media, the more promotional offers—such as discounts and live shopping events—they encounter. This acts as a trigger for Generation Z consumers to take advantage of available promotional offers. Consequently, as promotional offers on social media become more numerous and attractive, impulsive buying behavior among Generation Z consumers increases.

H4: Digital Financial Literacy Has a Negative Effect on Impulsive Buying Behavior.

Based on the regression analysis output shown in Table 5, the regression coefficient for the digital financial literacy variable (X4) is 0.081, with a significance value of 0.327 (> 0.05). Thus, Hypothesis 4 (H4) is rejected, indicating that digital financial literacy has no effect on impulsive buying behavior. These findings diverge from the common phenomenon wherein digital financial literacy negatively impacts impulsive shopping behavior; instead, they align with prior research conducted by Mulyani et al. (2026) and Vingky Dwi Pratama & Indra Maipita (2026). Typically, consumers with strong digital financial literacy tend to be more selective and deliberate in their purchasing decisions, weighing the potential risks associated with each choice. However, this study reveals a different pattern, as the respondents exhibited distinct shopping behaviors. It appears that the "fear of missing out" (FOMO) plays a significant and dominant role in driving impulsive shopping behavior. This is evidenced by the regression equation, in which the FOMO variable displays the highest regression coefficient—0.329—among the independent variables analyzed.

VI. CONCLUSION

Based on the data analysis and discussion outlined above, it can be concluded that digital payments, the "fear of missing out" (FOMO), and social media marketing have a positive and significant influence on the impulsive buying behavior of Generation Z in Semarang City, whereas the variable of digital financial literacy has no effect on such behavior. This indicates that if factors such as ease of use, speed, security, and convenience associated with digital payments improve, the urge among Generation Z consumers in Semarang City to make spontaneous purchases will also increase. FOMO is the most dominant factor influencing impulsive shopping behavior; this is inseparable from the characteristics of Generation Z, who tend to keep up with environmental trends and thus experience fear and anxiety about being left behind. Social media marketing also plays a significant role in influencing impulsive shopping behavior; consequently, optimizing promotional strategies via social media would be highly effective in shaping this behavior. Finally, digital financial literacy was found to have no impact on impulsive shopping behavior. Thus, even though Generation Z consumers in Semarang City possess reasonably good digital financial literacy, this does not influence their impulsive shopping behavior.

Research Limitations

This study has several limitations, including a relatively low Adjusted R-Square value of 33.7%, meaning the findings do not fully explain the phenomenon of impulsive buying behavior among Generation Z in Semarang City. Therefore, future research could incorporate other variables that influence impulsive buying behavior but were not examined here—such as lifestyle, psychological aspects, live shopping, and so forth. The use of questionnaires for data collection inherently involves limitations, as the validity and accuracy of the data provided by respondents depend heavily on their subjectivity. Furthermore, the study population was quite limited, so the findings can only be generalized to Generation Z within Semarang City.

Research Implications

The findings of this study provide empirical support for the Stimulus-Organism-Response Theory and the Theory of Planned Behavior. The analysis results demonstrate that digital payments, FOMO, and social media marketing significantly influence impulsive buying behavior. This implies that social media platforms should continuously optimize their marketing activities while providing easy, practical, and secure digital payment services for Generation Z consumers. It is hoped that this study will prove useful and serve as a reference for similar research involving broader population scopes.The Double pendulum is a very complex system. Due to the complexity of the system there are many assumptions, if there was friction, and the system was non-conservative, the system would be chaotic. Chaos is a state of apparent disorder and irregularity. Chaos over time is highly sensitive to starting conditions and can only occur in non-conservative systems. The time of this motion is called the period, the period does not depend on the mass of the double pendulum or on the size of the arcs through which they swing. Another factor involved in the period of motion is, the acceleration due to gravity.

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