
How Viral Marketing and FoMO Generate Gen Z's Impulsive Buying Behavior?

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ABSTRACT

Aims: Exploring the effects of viral marketing and fear of missing out (FoMO) on impulsive buying behavior among Gen Z Customers in Indonesia. Additionally, it aims to uncover how FoMO mediates the relationship between viral marketing and impulse buying behavior among Gen Z consumers in Indonesia.

Study Design: This quantitative cross-sectional study employs the survey method. Data were gathered via the use of a questionnaire to determine the proportion of respondents considered to be representative of a certain community.

Place and Duration of Study: The study took place in Jakarta, Indonesia from November 2023 – February 2024

Methodology: Using Purposive snowball sampling, 209 Gen Z students from universities in Jakarta were taken as the sample. A 5-point Likert scale was used in an online survey to collect data. After that, structural equation modeling (SEM) using partial least squares methods was applied to the gathered data. This method was applied to evaluate the theoretical framework's validity and examine the proposed hypotheses.

Results: The findings revealed that viral marketing significantly influenced the emergence of FoMO, leading to impulsive buying behavior. In addition, FoMO was also found to be an essential mediator in explaining the interaction between viral marketing and impulsive buying behavior.

Conclusion: The findings benefit marketers attempting to reach Gen Z to address the social and economic consequences of undesirable customer behavior that may arise from the extensive usage of viral marketing campaigns. Understanding these facts will also help Gen Z become more aware and conscious, which helps them resist the need to make impulsive buying brought on by the fear of missing out utilized in viral marketing campaigns.

Keywords: Impulsive buying behavior, marketing strategy, viral marketing, fear of missing out (FoMO), Gen Z, social media.

1. INTRODUCTION

1.1. Research Background

The widespread accessibility of the internet through computers or smartphones, allowing users to connect from any location and at any time, has contributed to a rise in the global internet user population. The Ministry of Communication and

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Information Technology of the Republic of Indonesia noted that the number of internet users in Indonesia in 2022 reached 215.63 million, with an increase of 2.67% from the previous year (Kominfo, 2023).

The increasing prevalence of numerous social media platforms like WhatsApp, TikTok, Instagram, Facebook, and YouTube, is growing more public interest to stay connected to the internet. No generation can escape the influence of the internet nowadays, and when compared to other generations, Gen Z, or those born between 1995 and 2010, has the strongest attachment to social media (Ahuja & Grover, 2023; Lyngdoh et al., 2023). They tend to be more responsive and technology addicted, continuously seek information, and share things through social media (Li & Hasnah Hassan, 2023).

This circumstance opens new opportunities for businesses and advertisers to reach a broader target audience in social media. In this recent “Internet of Things” era, traditional marketing is perceived as less relevant to market conditions due to its limited reach in the market landscape (Uyan & Hamidi, 2020). Various marketing strategies and methods that offer ease and convenience of shopping through social media are aimed at attracting Gen Z customers to shop online. Viral marketing emerged as one of the popular marketing strategies in the community.

Although it is seen as effective in reaching the target audience and creating brand awareness, viral marketing can negatively affect consumers psychologically and financially. Along with the extensive use of viral marketing through social media channels like Facebook, WhatsApp, YouTube, Instagram, TikTok, etc., a contemporary societal issue known as ‘Fear of Missing Out’ or FoMO, has emerged in society. According to the earlier research, the more individuals suffer FoMO, the more they utilize social media (Kundu & Ayan, 2024). Due to this phenomenon, online businesses now have the chance to use viral marketing campaigns on social media to convince and draw in as many potential customers as they can. They may also make use of this fear to stimulate consumers' impulsive buying behaviour.

There is a growing concern about the adverse impacts of impulsive buying on consumer well-being, as well as the resilience of our societal and environmental sustainability. (Wang et al., 2022). The topic of impulsive buying behavior has gained significant attention in academic circles. Prior studies have often focused on demographic characteristics that influence impulsive buying behavior (Ahn & Kwon, 2022; Miao et al., 2020; Yi & Jai, 2020). Several studies have discussed the effect of Viral marketing on impulsive buying behaviour. However, the exploration of the mediating role of fear of missing out (FoMO) in the relationship between viral marketing and impulsive buying behavior remains largely uncharted territory. Consequently, there is a pressing need for further research to untangle the complex interplay of these factors, particularly among Gen Z customers, to provide a more thorough comprehension about impulsive buying behavior.

1.2. Research Objectives

This research is aimed to figure out the complex interactions between viral marketing, FoMO, and impulsive buying behaviour. It will explore the mediating role of fear of missing out (FoMO) in the relationship between viral marketing and

impulsive buying behavior. This research is to provide the empirical proof that viral marketing has psychological and potential negative consequences, especially on Gen Z customers which should be taken into account by businesses when conducting marketing campaigns.

2. LITERATURE REVIEW

2.1. Conceptual Framework

2.1.1 Impulsive Buying Behaviour

Impulsive buying has become a prominent observable behavior due to evolving lifestyles and increasing disposable income (Rani et al., 2023). The concept of impulsive buying behavior encompasses a range of purchasing actions, including unplanned purchases (Hu et al., 2019), happen spontaneously without intention (Pereira et al., 2023), driven by hedonism (Olsen et al., 2022), without thoughtful deliberation and a logical process for making decisions (Wang et al., 2022). Impulsive buying behavior is determined by a combination of cognitive, emotional, and impulsive behavioral elements, as well as an inclination to buy impulsively (Wang et al., 2022). The three key attributes of impulsive buying behavior include emotional stimulation, self-control, and impulsive acts (Hoang & Khoa, 2022). This behaviour manifests as a spontaneous, unplanned act driven by intense emotions and an unconscious desire to obtain specific goods (Lo et al., 2022; Redine et al., 2023; Zhang et al., 2022)

2.1.2 Viral Marketing

Viral marketing is an internet-based word-of-mouth technique (Krishnan et al., 2022) that utilizes social networks to promote a brand, product, or service (Jendoubi & Martin, 2020), swiftly connects social media users like the rapid spread of viruses (Nguyen & Nguyen, 2020). Its goal is to accelerate communication by promoting user-to-user exchanges of information on goods and services. Consumer perceptions of viral marketing are frequently examined based on their responses to marketing communications, considering factors such as the message's informativeness, entertainment value, and the credibility of its source (Uyan & Hamidi, 2020).

2.1.3 Fear of Missing Out

FoMO is a psychological condition which is viewed as a bad effect of social media (Lv & Wang, 2023; Oспенica Kostić et al., 2022; Yin et al., 2023). Those who have this inclination do not want to miss anything that happens in their social media group. As defined by the concepts of Self Determination Theory (SDT), Fear of Missing Out (FoMO) is an unfavorable emotional situation caused by the impression or experience that one's relationship with their peer group is being endangered (Gartner et al., 2022). Within the framework of fear, emotion, and motivation, people are motivated by a complex interaction of psychological elements that force them to remain aware of and involved in current experiences and events (Przybylski et al., 2013).

2.1.4 The Supporting Theoretical Models

There are three supporting theoretical models included in this study. First, the Social Influence Theory (SIT) by Deutsch and Gerard's, which emphasizes that individuals' attitude is influenced by the amount of information they get from their society (Shah and Asghar, 2023). The SIT Theory is used to explain the relationship between viral marketing and impulsive buying behaviour.

The second theory is Social Comparison Theory (SCT) by Leon Festinger, which describes that people frequently look to other people for guidance on appropriate behavior (Verduyn et al., 2020). The SCT Theory is chosen to explain the relationship between Viral Marketing and Fear of Missing out, and the relationship between Fear of Missing Out and Impulsive Buying Behaviour.

The third theoretical support is the theory of Stimulus – Organism Response (SOR) by Mehrabian and Russel. The SOR Theory describes that consumers may react differently depending on their internal core emotional reactions (Saewanee et. Al., 2024). This theory is used to explain the mediating effect of FoMO in the relationship between Viral Marketing and Impulsive Buying Behaviour.

2.2 THEORETICAL FRAMEWORK AND HYPOTHESES

2.2.1 Viral Marketing and Impulsive Buying Behaviour

According to Social Influence Theory (SIT), people are susceptible to being persuaded by information they get from others and take to be true (Hu et al., 2019) Consumer attitudes are influenced by the amount of information they get (Trivedi, 2017). The widespread dissemination of information on social media networks has a positive influence on impulsive buying behaviour (Kazi et al., 2019). The use of viral marketing is likely to extensively disseminate information that may influence impulsive buying behaviour. Moreover, the Theory of Planned Behaviour states that an individual's behaviour is determined by their attitudes toward behaviour, subjective norms, and perceived behavioural control (Ajzen, 2020). In the context of viral marketing, if the message is compelling and the source is reliable, it may lead to a positive attitude about the product and boost perceived behavioural control, which in turn, increases the possibility of impulsive buying behaviour. Several studies have shown that viral marketing has positive influences on impulsive buying behaviour (Liyanapathirana, 2021; Rizqullah & Indrawati, 2022; Uyan & Hamidi, 2020).

Theoretical reasoning and several previous studies lead to the prediction that viral marketing influences the impulse buying behavior of Generation Z customers. Therefore, the following hypothesis is posited:

H1: Viral marketing has a significant effect on the impulsive buying behavior of Gen Z customers in Indonesia

2.1 Viral Marketing and Fear of Missing Out

The Social Comparison Theory states that people frequently look to other people for guidance on appropriate behavior (Verduyn et al., 2020). According to that theory, people assess themselves by contrasting their qualities and skills with those of others. Viral marketing communications that showcase the goods,

services, or experiences that others are enjoying might provide people with social comparisons. Because the commercial has gone viral and is being talked about widely, individuals will follow the trend and do not want to miss out (Holte, 2023; Holte & Ferraro, 2020; Jabeen et al., 2023). It is possible to deduce that social media viral marketing could stimulate users' emotions to the point where they are constantly following viral trends and experiencing FOMO.

Although research examining the relationship between viral marketing and the FoMO phenomena has not been located, it is likely that viral marketing affects FoMO based on the description provided above. Hence, this hypothesis is put forth:

H2: Viral marketing has significant effects on FoMO among Gen Z customers in Indonesia

2.2 Fear of Missing Out and Impulsive Buying Behaviour

The Fear of Missing Out (FoMO) has emerged as a strategic tool utilized by businesses to sway consumer purchasing decisions. Various tactics have been employed to evoke FoMO tendencies, such as creating a sense of scarcity around advertised products or services and instilling a fear of missing out on the opportunity (Çelik et al., 2019). This emotional response can then impact consumer behavior (Good & Hyman, 2020) and provide companies with chances to promote their offerings through consumers sharing their experiences on social media platforms (Xi et al., 2022).

FoMO has the power to shape attitudes and behaviors related to consumer experiences, leading to increased sales. In the marketing field, FoMO is advantageous due to its connection to impulsive buying behavior and other factors affecting the relationship between products and consumers (Holte & Ferraro, 2020). Several studies have indicated that FoMO influences buying intentions (Cam et al., 2021) and can prompt impulsive buying behavior (Lian et al., 2022).

Given this context, it is predicted that FoMO significantly impacts the Impulsive Buying Behavior (IBB) of Generation Z. Consequently, the following hypothesis is proposed

H3: FoMO has significant effects on the impulsive buying behaviour of Gen Z customers in Indonesia.

2.3 Viral Marketing, Fear of Missing Out, and Impulsive Buying Behaviour

The theory of Stimulus-Organism-Response (SOR), formulated by Mehrabian and Russel (1974), describes how environmental factors affect an individual's internal states and behavior (Pereira et al., 2023). According to this theory, stimuli (S) can originate from both external and interior sources can emanate from both internal sources, such as consumer characteristics and personality, and external sources like information and social media. The organism (O) perceives a stimulus, triggering internal reactions that manifest in perceptual, physiological, emotional, or cognitive responses. These responses (R) ultimately influence consumer behavior (Lin et al., 2022).

In the context of this study, the stimulus (S) pertains to viral marketing, the organismal aspect (O) is associated with Fear of Missing Out (FoMO), and the response (R) component is linked to impulsive buying behavior. The hypothesis posits that viral marketing will stimulate FoMO, subsequently leading to impulsive buying behavior. Regarding the consumer experience, FoMO affects attitudes and behavior (Good & Hyman, 2020) which in this study relates to impulsive buying behaviour. This description leads one to believe that FoMo acts as a mediator in the interaction between impulsive buying behaviour and viral marketing. As a result, the following hypothesis is proposed:

H4: Viral marketing has a significant impact on Gen Z consumers' impulsive buying behavior through FoMO.

The research model is illustrated in Figure 1 below:



Figure 1. Research Framework Model

3. METHODOLOGY

The study focused on Generation Z residing in Jakarta, comprising individuals born between 1996 and 2010. A sample of 209 respondents was gathered using purposive snowball sampling, specifically targeting active university students enrolled during the academic year of 2022/2023 who had prior experience with online shopping. Researchers initiated the sampling process by identifying eligible participants meeting the established criteria and subsequently requesting referrals from them to identify additional individuals meeting the study's requirements.

For all variables, a five-point Likert scale with a range of 1 (strongly disagree) to 5 (strongly agree) was used as the assessment tool. The Impulsive Buying Behavior (IBB) examination was modified from Wang (Wang et al., 2022), the evaluation of Viral Marketing (VM) stemmed from Uyan and Hamidi (Uyan & Hamidi, 2020), and the measurement of the Fear of Missing Out (FoMO) was derived from Przybylski (Przybylski et al., 2013). This study used Partial Least Squares Structural Equation Modeling (PLS-SEM) to investigate the relationships between constructs and the indicators that correlate to them (Becker et al., 2022). There are two important steps in analyzing data using PLS-SEM. Analyzing the measurement models is the first phase, which entails looking at the indicator loadings and evaluating the discriminant validity, convergent validity, and internal consistency reliability. The

structural model evaluation comes next, if the measurement model assessment is deemed adequate (Hair et al., 2019).

Before proceeding with the data analysis, it is essential to understand the demographic description of the respondents. These demographics encompass gender, birth year, amount of time spent on social media, preferred social media platform, and favored online shop.

Table 1. Demographic Characteristic of Respondents

Characteristics	Description	Frequency	Percentage (%)
Gender	Male	87	41.6
	Female	122	58.4
Birth year	1996 - 1999	10	4.8
	2000 - 2003	174	83.3
	2004 - 2007	25	11.5
	2008 – 2010	0	0
Amount of time spent on social media	1 ≤ 3 hours	30	14.4
	4 ≤ 6 hours	52	24.9
	7 ≤ 9 hours	69	33.0
	10 ≤12 hours	30	14.4
	12 > ... hours	28	13.4
Favoured social media	Youtube	28	13.4
	Instagram	75	35.9
	Tiktok	84	40.2
	Twitter	16	7.7
	Facebook	6	2.9
Favoured online Shop	Tokopedia	29	13.9
	Shopee	164	78.5
	Lazada	6	2.9
	Buka Lapak	6	2.9
	Bli-Bli	4	1.9

The majority of participants in this research were female students aged between 20 and 23 years or born from 2000 to 2003. They reported using social media for seven to nine hours a day, with TikTok being the most favored platform and Shopee emerging as the top online buying marketplace.

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Measurement Model

The evaluation of the PLS-SEM model predominantly centers on the measurement models, necessitating a distinction between reflectively and formatively measured constructs. Firstly, reflective measurement models should be assessed to find out the validity and reliability of the instrument (Hair et al., 2017). Based on the measurement model's validity, it was found that all outer loadings ranged from 0.612 to 0.876, suggesting that all observed variables' validity has been met. The

model's internal consistency is rated satisfactory with the values of Cronbach's Alpha (CA) and Composite Reliability (CR) range from 0.70 to 0.90. The average variance extracted (AVE) is higher than the 0.5 criterion that is considered acceptable for convergent validity (Hair et al., 2021). The Heterotrait-Monotrait (HTMT) ratio (Hair et al., 2021) and the Fornell-Larcker criterion (Gimeno-Arias & Santos-Jaén, 2022) were used to evaluate discriminant validity. Because the HTMT ratio is significantly lower than the threshold value of 0.90, the model demonstrates discriminant validity. Table 2 contains comprehensive results of convergent and discriminant validity.

Table 2. Convergent and discriminant validity

Constructs	CA	CR	AVE	HTMT Ratio		
				1	2	3
1. FoMO (Z)	0.884	0.913	0.639			
2. VM (X)	0.846	0.886	0.567	0.339		
3. IBB (Y)	0.899	0.918	0.553	0.555	0.302	

Table 3 displays the outcome of the Fornell-Lacker criterion.

Table 3. Discriminant Validity Result Using Fornell-Lacker Criterion

Construct	FoMO	VM	IBB
1. FoMO	0.799		
2. VM	0.303	0.753	
3. IBB	0.505	0.271	0.744

The results show that the measurement model has strong discriminant validity as judged by the Fornell-Larcker criterion, with each latent variable's square root of the AVE greater than its correlation with any other latent variable.

Only 30.3% of the variance in the data on impulsive buying can be explained by the statistical model that was used to investigate the relationship between VM and impulsive buying, with an R-squared value of 0.303; the remaining 69.7% may be attributed to factors other than VM. Conversely, the FoMO model's R-squared value is 0.465, which indicates that it can only account for 46.5% of the variation in the FoMO data; the remaining 53.5% must be explained by factors other than VM.

After assessing the reflective measurement model, it is necessary to evaluate the collinearity of the formative measurement model. When there is a significant connection between two or more indicators in a formative measurement paradigm, this is known as collinearity. The research reveals that the values of the collinearity statistics (VIF) are less than three. As a result, it appears that the model is not a troublesome matter (Hair et al., 2021). Table 4 below displays the collinearity test result:

Table 4. Collinearity statistics (VIF)

FoMO	VM	IBB
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FoMO		
VM	1.000	
IBB	1.101	1.101

Since the SRMR value of 0.079 is less than the widely accepted cutoff of 0.10, it indicates that the model fits the data for the model well.

3.1.2 Structural Model

Table 5 displays the outcome of the route coefficient evaluation for structural models.

Table 5. Path Coefficient

Path	Original Sample (O)	Sample M	STDEV	t-statistic	P-value
VM → IBB	0.465	0.472	0.058	7.951	0.000
VM → FoMO	0.303	0.312	0.063	4.773	0.000
FoMO → IBB	0.130	0.133	0.061	2.131	0.033

The structural model that was utilized to test the hypotheses had its P-value and t-statistic values analysed. One variable may significantly influence another if the t-statistic value is greater than 1.96 and the P-value is less than 0.05 (Hair et al., 2017).

With a P-value of 0.000 and a t-statistic value of 7.951, which exceeds 1.96, VM has a positive and significant direct effect on IBB. Similarly, the study demonstrates that VM has significant direct effect on FoMO in a positive way, with a P-value of 0.000 and a t-statistic value of 4.773. Furthermore, the significant and positive direct effect of FoMO on IBB is shown by the t-statistic value of 2.131 with a P-value of 0.033. The findings emphasize the significance of viral marketing and the impact of FoMO on impulsive buying behavior among Generation Z consumers in Indonesia. Overall, the findings show that viral marketing considerably and favorably effects both FoMO and impulsive buying behaviour, and that FoMO significantly influences impulsive buying behaviour. H₁, H₂, and H₃ are therefore confirmed.

The structural model is presented in Figure 1 below:

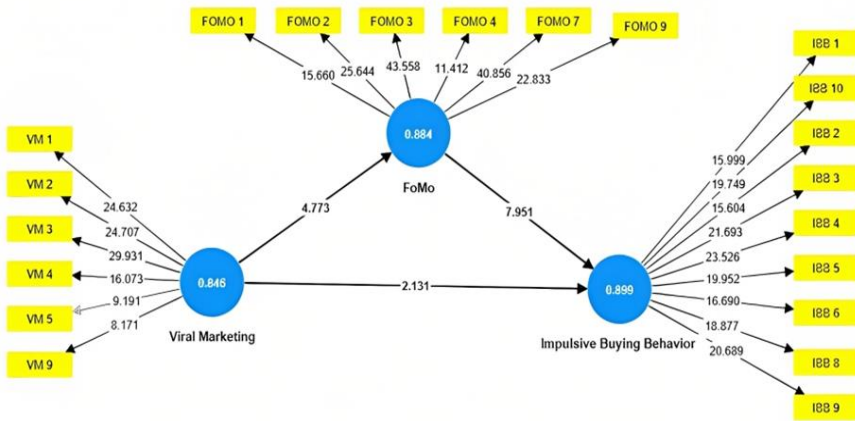


Figure 2. Structural Model

In the meanwhile, Table 6 displays the indirect effect of viral marketing (VM) on impulsive buying behavior (IBB) through Fear of Missing Out (FoMo).

Table 6. Indirect effect of viral marketing

	Original sample (O)	Sample mean (M)	Standard deviation	t-statistics	P-values
VM →FoMo→IBB	0.141	0.147	0.033	4.233	0.000

The P-value is 0.000 < 0.05 and the t-statistic value is 4.233 > 1.96 based on the indirect impact result. This demonstrates H3's acceptance. In this instance, it implies that FoMo's indirect effect is probably going to be statistically significant, meaning that FoMo is acting as a mediator in the interaction between VM and IBB.

4.2 Discussion

This study presents four key research outcomes. The first finding reveals that VM significantly affects IBB, indicating that consumers tend to engage more in impulsive buying when exposed to VM campaigns. This may be attributed to the persuasive nature of VM techniques, which foster excitement and urgency around products or services, thereby encouraging impulsive buying. This outcome provides evidence for the effectiveness of VM in influencing consumer behavior and it is consistent with previous studies (Liyanapathirana, 2021; Rizqullah & Indrawati, 2022; Uyan & Hamidi, 2020). This finding enhances our comprehension of the psychological mechanisms that underlie impulsive buying behavior and how viral marketing techniques can activate these mechanisms.

The second finding reveals a significant positive effect of VM on Fear of Missing Out (FoMo), indicating that exposure to VM marketing intensifies consumers' FoMo. Consequently, individuals exposed to viral marketing advertisements may

feel heightened pressure to follow trends and engage in behaviors promoted by these ads. This finding is noteworthy as it sheds light on the potential negative impact of VM on users' mental and emotional well-being (Chu, 2011; Eckler & Bolls, 2011). Specifically, it raises the possibility that VM exposure may intensify stress, anxiety, and social pressure to conform.

Furthermore, the third finding highlights the positive and significant effect of FoMO on IBB, suggesting that individuals with higher FoMO levels are more prone to impulsive buying tendencies. This empirical evidence corroborates previous research (Good & Hyman, 2020; Holte & Ferraro, 2020; Lian et al., 2022) emphasizing the significant relationship between FoMO and IBB, with implications for consumer behavior and marketing strategies. High FoMO individuals are inclined towards impulsive buying, leading to increased expenditure, debt, and financial strain. Marketers targeting this demographic should consider leveraging strategies that capitalize on urgency, scarcity, or trends to effectively stimulate IBB among these consumers.

The fourth finding highlights that Fear of Missing Out (FoMO) acts as a mediator in the association between viral marketing (VM) and impulsive buying behavior (IBB). This implies that when individuals encounter VM campaigns, they may undergo an increased feeling of FoMO, subsequently prompting them to participate in impulsive buying behavior. This implies that people who are exposed to VM ads may feel more FoMO than usual, which might encourage them to participate in IBB. This result is noteworthy as it underscores the essential mechanisms linking viral marketing (VM) and impulsive buying behavior (IBB). As per this study, Fear of Missing Out (FoMO) serves as a mediator in this connection, indicating that individuals exposed to VM initiatives are prone to experiencing heightened FoMO sensations, which consequently drive impulsive buying behavior. It indicates that employing VM campaigns to instill a feeling of urgency or scarcity can not only directly boost IBB but also indirectly enhance it by heightening consumers' FoMO.

5. CONCLUSION

These findings deepen our understanding of the complex interactions between viral marketing, FoMO, and impulsive buying behavior. They stressed the significance of moral marketing strategies that put the well-being of customers first. Marketers must be aware of the psychological effects of viral marketing and consider the potential negative consequences for consumers. In addition, it's critical to understand how emotions, particularly the fear of missing out, affect purchasing decisions. By highlighting a product's exclusivity or scarcity, marketers may capitalize on FOMO, but they must ensure that their offerings live up to customer expectations to prevent unfavourable effects. In essence, the results of this research contribute to our knowledge of the intricate relationship among VM, FOMO, and impulsive buying behavior, underscoring the importance of ethical and responsible marketing approaches that prioritize customer welfare and independence. Consumers should enhance self-awareness regarding the influence of marketing tactics to make informed purchasing decisions aligned with their needs and preferences.

However, there are some limitations to this study. Firstly, it does not examine a specific e-commerce platform that utilizes viral marketing. Future studies might concentrate on a specific e-commerce platform that uses viral marketing techniques in Jakarta and other Asian nations to get over this restriction. This would enable a more focused examination of how viral marketing affects customer behavior. Another disadvantage is that the study only includes current Gen-Z university students as representations. Researchers should broaden the sample to include more Gen-Z subgroups to remedy this. Participants may come from various geographic places, occupations, and socioeconomic backgrounds, for example. This would offer a more thorough comprehension of Gen-Z behavior and how viral marketing relates to it.

Additionally, researchers could adopt a mixed-methods approach that combines qualitative and quantitative data collection methods. This would offer a more holistic understanding of the complexities of Gen-Z behavior and its connection to viral marketing. Finally, researchers could also explore the potential moderating effects of factors such as culture, age, gender, and income on the relationship between viral marketing and consumer behavior among Gen-Z customers. This would offer a more thorough comprehension of Gen-Z behavior and how viral marketing relates to it.

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REFERENCES

1. Ahn, J., & Kwon, J. (2022). The Role of Trait and Emotion in Cruise Customers' Impulsive Buying Behavior: an Empirical Study. *Journal of Strategic Marketing*, 30(3), 320–333. <https://doi.org/10.1080/0965254X.2020.1810743>
2. Ahuja, S., & Grover, K. (2023). Excessive Use of Social Networking Sites and Intention to Invest in Stock Market among Gen Z: A Parallel

- Mediation Model. *Journal of Content, Community and Communication*, 17(9), 63–79. <https://doi.org/10.31620/JCCC.06.23/06>
3. Ajzen, I. (2020). The Theory of Planned Behavior: Frequently Asked Questions. *Human Behavior and Emerging Technologies*, 2(4), 314–324. <https://doi.org/10.1002/hbe2.195>
 4. Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M., & Sarstedt, M. (2022). PLS- SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, August.
 5. Cam, T., Dinh, T., & Lee, Y. (2021). "I want to be as Trendy as Influencers " – How " Fear of Missing Out " Leads to Buying Intention for Products Endorsed by Social Media Influencers. *Journal of Research in Interactive Marketing*, 16(3), 346–264. <https://doi.org/10.1108/JRIM-04-2021-0127>
 6. Çelik, I. K., Eru, O., & Cop, R. (2019). The Effects of Consumers' FoMo Tendencies On Impulse Buying and The Effects of Impulse Buying on Post- Purchase Regret: An Investigation on Retail Stores*. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 10(3), 124–138. <https://www.brain.edusoft.ro/index.php/brain/article/view/950>
 7. Chu, S. (2011). Viral Advertising in Social Media: Participation in Facebook Groups and Responses Among College-Aged Users. *Journal of Interactive Advertising*, 12(1), 30–43.
 8. Eckler, P., & Bolls, P. (2011). Spreading the Virus: Emotional Tone of Viral Advertising and Its Effect on Forwarding Intentions and Attitudes. *Journal of Interactive Advertising*, 11(2), 1–11. <https://doi.org/10.1080/15252019.2011.10722180>
 9. Gartner, J., Fink, M., & Maresch, D. (2022). The Role of Fear of Missing Out and Experience in the Formation of SME Decision Makers' Intentions to Adopt New Manufacturing Technologies. *Technological Forecasting and Social Change*, 180(April), 121723. <https://doi.org/10.1016/j.techfore.2022.121723>
 10. Gimeno-Arias, F. and Santos-Jaén, J.M. (2022), "Using PLS-SEM for assessing negative impact and cooperation as antecedents of gray market in FMCG supply chains: an analysis on Spanish wholesale distributors", *International Journal of Physical Distribution & Logistics Management*, <https://doi.org/10.1108/IJPDLM-02-2022-0038>
 11. Good, M. C., & Hyman, M. R. (2020). 'Fear of Missing Out': Antecedents and Influence on Purchase Likelihood. *Journal of Marketing Theory and Practice*, 28(3), 330–341. <https://doi.org/10.1080/10696679.2020.1766359>
 12. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) -. In *Sage* (Second Edi). SAGE.
 13. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. In *Structural Equation Modeling: A Multidisciplinary Journal* (Vol. 30, Issue 1). <https://doi.org/10.1080/10705511.2022.2108813>
 14. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report the Results of PLS-SEM. *European Business*

- Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
15. Hoang, C. C., & Khoa, B. T. (2022). Impulse Buying Behavior of Generation Z customers in Social Commerce: Flow Theory Approach. *Journal of Logistics, Informatics and Service Science*, 9(4), 197–208. <https://doi.org/10.33168/LISS.2022.0413>
 16. Holte, A. J. (2023). The State Fear of Missing Out Inventory: Development and validation. *Telematics and Informatics Reports*, 10(February), 100055. <https://doi.org/10.1016/j.teler.2023.100055>
 17. Holte, A. J., & Ferraro, F. R. (2020). Anxious, Bored, and (maybe) Missing Out: Evaluation of Anxiety Attachment, Boredom Proneness, and Fear of Missing Out (FoMO). *Computers in Human Behavior*, 112(July 2019), 106465. <https://doi.org/10.1016/j.chb.2020.106465>
 18. Hu, X., Chen, X., & Davidson, R. (2019). Social Support, Source Credibility, Social Influence, and Impulsive Purchase Behavior in Social Commerce. *International Journal of Electronic Commerce*, 23(3), 297–327. <https://doi.org/10.1080/10864415.2019.1619905>
 19. Jabeen, F., Tandon, A., Sithipolvanichgul, J., Srivastava, S., & Dhir, A. (2023). Social media-induced fear of missing out (FoMO) and social media fatigue: The role of narcissism, comparison and disclosure. *Journal of Business Research*, 159(February), 113693. <https://doi.org/10.1016/j.jbusres.2023.113693>
 20. Jendoubi, S., & Martin, A. (2020). Evidential Positive Opinion Influence Measures for Viral Marketing. *Knowledge and Information Systems*, 62(3), 1037–1062. <https://doi.org/10.1007/s10115-019-01375-w>
 21. Kazi, A. G., Khokhar, A. A., Qureshi, P. A. baker, & Murtaza, F. (2019). The Impact of Social Media on Impulse Buying Behaviour in Hyderabad Sindh Pakistan. *International Journal of Entrepreneurial Research*, 2(2), 8–12. <https://doi.org/10.31580/ijer.v2i2.907>
 22. Kominfo. (2023). *Memenuhi Layanan Digital hingga Pelosok*. Kementerian Komunikasi Dan Informatika Indonesia. <https://www.kominfo.go.id/content/detail/49482/memenuhi-layanan-digital-hingga-pelosok/0/artike>
 23. Krishnan, C., Majid Baba, M., Singh, G., & Mariappan, J. (2022). Viral Marketing: A New Horizon and Emerging Challenges. In *Smart Innovation, Systems and Technologies* (Vol. 246, pp. 161–175). https://doi.org/10.1007/978-981-16-3398-0_8
 24. Kundu, Bishal, and Ayan Kumar Dey. "Social Media Sleepwalkers: Is Gen Z Opting for Unfiltered Life by Hitting Snooze on the Feed?" *Brainwave: A Multidisciplinary Journal*, vol. 5, no. 1, Mar. 2024, pp. 627–644.
 25. Li, P., & Hasnah Hassan, S. (2023). Mapping the literature on Gen Z purchasing behavior: A bibliometric analysis using VOSviewer. *Innovative Marketing*, 19(3), 62–73. [https://doi.org/10.21511/im.19\(3\).2023.06](https://doi.org/10.21511/im.19(3).2023.06)
 26. Lian, L. K., Lian, S. B., & Khie, K. T. M. (2022). The Mediating Effect of Fear of Missing Out on Consumer Behavior in the Post Covid-19 Era. *Electronic Journal of Business and Management*, 7(3), 20–28.
 27. Lin, S. C., Tseng, H. T., Shirazi, F., Hajli, N., & Tsai, P. T. (2022). Exploring Factors Influencing Impulse Buying In Live Streaming

- Shopping: A Stimulus-Organism-Response (SOR) Perspective. *Asia Pacific Journal of Marketing and Logistics*. <https://doi.org/10.1108/APJML-12-2021-0903>
28. Liyanapathirana, Y. (2021). Viral Marketing and Impulse Buying: The Role of Online Trust in a Pandemic. *South Asian Journal of Business Insights*, 1(2), 74. <https://doi.org/10.4038/sajbi.v1i2.29>
 29. Lo, P. S., Dwivedi, Y. K., Wei-Han Tan, G., Ooi, K. B., Cheng-Xi Aw, E., & Metri, B. (2022). Why do Consumers Buy Impulsively during Live Streaming? A deep Learning-Based Dual-stage SEM-ANN Analysis. *Journal of Business Research*, 147(April), 325–337. <https://doi.org/10.1016/j.jbusres.2022.04.013>
 30. Lv, S., & Wang, H. (2023). The Effect of College Students' Boredom Proneness on Phubbing: The Chain-Mediating Effects of Fear of Missing Out and Online Vigilance. *Perspectives in Psychiatric Care*, 2023, 1–6. <https://doi.org/10.1155/2023/9713789>
 31. Lyngdoh, T., El-Manstrly, D., & Jeeshia, K. (2023). Social isolation and social anxiety as drivers of generation Z's willingness to share personal information on social media. *Psychology and Marketing*, 40(1), 5–26. <https://doi.org/10.1002/mar.21744>
 32. Miao, M., Jalees, T., Qabool, S., & Zaman, S. I. (2020). The effects of personality, culture and store stimuli on impulsive buying behavior: Evidence from emerging market of Pakistan. *Asia Pacific Journal of Marketing and Logistics*, 32(1), 188–204. <https://doi.org/10.1108/APJML-09-2018-0377>
 33. Nguyen, C., & Nguyen, D. (2020). A Study of Factors Affecting Brand Awareness in the Context of Viral Marketing in Vietnam. *International Journal of Advanced Science and Technology*, 29(5), 5401–5411. <https://doi.org/10.2139/ssrn.3930643>
 34. Olsen, S. O., Khoi, N. H., & Tuu, H. H. (2022). The “Well-Being” and “Ill-Being” of Online Impulsive and Compulsive Buying on Life Satisfaction: The Role of Self-Esteem and Harmony in Life. *Journal of Macromarketing*, 42(1), 128–145. <https://doi.org/10.1177/02761467211048751>
 35. Opsenica Kostić, J., Pedović, I., & Stošić, M. (2022). Predicting Social Media Use Intensity in Late Adolescence: The Role of Attachment to Friends and Fear of Missing Out. *Acta Psychologica*, 229(July). <https://doi.org/10.1016/j.actpsy.2022.103667>
 36. Pereira, M. L., de La Martinière Petroll, M., Soares, J. C., Matos, C. A. de, & Hernani-Merino, M. (2023). Impulse Buying Behaviour in Omnichannel Retail: an Approach through the Stimulus-Organism-Response Theory. *International Journal of Retail and Distribution Management*, 51(1), 39–58. <https://doi.org/10.1108/IJRDM-09-2021-0394>
 37. Przybylski, A. K., Murayama, K., Dehaan, C. R., & Gladwell, V. (2013). Motivational, Emotional, and Behavioral Correlates of Fear of Missing Out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>
 38. Rani, M., Dutta, D., & Issac, A. C. (2023). Tactical and Fast or Wise and

- Slow? A Conceptual Framework Understanding Impulse Buying Behaviour of Customers: Mediation–Moderation Model. In P. Mishra, A. Sharma, S. Khanra, S. K. Kundu, & S. K. Mishra (Eds.), *Digital Economy Post covid-19 Era* (Issue January, pp. 199–211). Springer.
39. Redine, A., Deshpande, S., Jebarajakirthy, C., & Surachartkumtonkun, J. (2023). Impulse Buying: A Systematic Literature Review and Future Research Directions. *International Journal of Consumer Studies*, 47(1), 3–41. <https://doi.org/10.1111/ijcs.12862>
 40. Rizqullah, M. R., & Indrawati, I. (2022). The Influence of Viral Marketing Through Tiktok on Consumers' Attitude At Shopee. *Journal of Global Business and Management Review*, 4(1), 66. <https://doi.org/10.37253/jgbmr.v4i1.6369>
 41. Saewanee, Cholthida, Jaruwan Napalaib and Pensri Jaroenwanit (2024) Factors Affecting Customer Retention of E-Marketplace Industries through Stimulus-Organismresponse (SOR) Model and Mediating Effect. *Uncertain Supply Chain Management* Vol.12.
 42. Shah, Syed Sibghatullah and Zahid Asghar (2023), Dynamics of social influence on consumption choices: A social network representation. *Heliyon* 9 e17146.
 43. Trivedi, J. (2017). The Effect of Viral Marketing Messages on Consumer Behavior. *Journal of Management Research*, 17(2), 84498.
 44. Uyan, Ö., & Hamidi, F. A. (2020). The Affect of Viral Marketing Factors on Impulse Purchasing Behavior within the Scope of International Electronic Commerce Applications. *Turkish Studies - Economy*, 15(3), 1655–1673. https://www.academia.edu/download/65721413/The_Affect_of_Viral_Marketing_Factors_on_Impulse_Purchasing_Behavior.pdf
 45. Verduyn, P., Gugushvili, N., Massar, K., Täht, K., & Kross, E. (2020). Social Comparison on Social Networking Sites. *Current Opinion in Psychology*, 36, 32–37. <https://doi.org/10.1016/j.copsyc.2020.04.002>
 46. Wang, Y., Pan, J., Xu, Y., Luo, J., & Wu, Y. (2022). The Determinants of Impulsive Buying Behavior in Electronic Commerce. *Sustainability (Switzerland)*, 14(12). <https://doi.org/10.3390/su14127500>
 47. Xi, Y., Huo, J., Zhao, X., Jiang, Y., & Yang, Q. (2022). The Effects of Fear of Missing Out on Social Media Posting Preferences. *European Journal of Marketing*, 56(12), 3453–3484. <https://doi.org/10.1108/EJM-10-2021-0814>
 48. Yi, S., & Jai, T. (2020). Impacts of Consumers' Beliefs, Desires and Emotions on Their impulse Buying Behavior: Application of an Integrated Model of Belief-Desire Theory of Emotion. *Journal of Hospitality Marketing and Management*, 29(6), 662–681. <https://doi.org/10.1080/19368623.2020.1692267>
 49. Yin, Y., Cai, X., Ouyang, M., Li, S., Li, X., & Wang, P. (2023). FoMO and the Brain: Loneliness and Problematic Social Networking Site Use Mediate the Association between the Topology of the Resting-state EEG Brain Network and Fear of Missing Out. *Computers in Human Behavior*, 141(September 2022). <https://doi.org/10.1016/j.chb.2022.107624>
 50. Zhang, Z., Zhang, N., & Wang, J. (2022). The Influencing Factors on

Impulse Buying Behavior of Consumers under the Mode of Hunger Marketing in Live Commerce. *Sustainability (Switzerland)*, 14(4). <https://doi.org/10.3390/su14042122>