



RESEARCH ARTICLE

Development of Gen-Z Behaviour Model in Online Shopping with Moderated High Involvement Product

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ABSTRACT

This study aims to examine and analyze gen-z behavior patterns on social media marketing, consumer engagement, purchase intention, and actual purchase behavior with the moderating role of high involvement products in Indonesia. This research is a quantitative study with a survey research design. The population in this study were all social media users who had made online purchases in Indonesia. The target sample in this study was 350 respondents using purposive sampling method. Data collection was carried out through online techniques using Google Forms. The research model in this study is the Structural Equation Model (SEM) with AMOS 24 technique. The research findings explain that social media marketing has a significant positive influence on consumer engagement; social media marketing has a significant positive influence on purchase intention; consumer engagement has a significant positive influence on purchase intention; consumer engagement mediates the relationship between social media marketing and purchase intention; purchase intention has a significant positive influence on actual online purchasing behavior of Gen Z. High-involvement products moderate the relationship between purchase intention and actual buying behavior. The results of this study cannot be fully generalized to other regions. This study is cross-sectional, meaning the results do not capture dynamics or changes in activities over time. Additionally, culture was not included as a contextual variable, despite culture having a significant influence on individual behavior. This study contributes to the enrichment of theory by confirming differences from previous studies and providing theoretical contributions in measuring variables such as social media marketing, purchase intention, consumer engagement, and actual purchasing behavior among Gen Z. Managerial Implications: This research provides insights for companies in Indonesia on social media marketing strategies for the Gen Z segment and how these strategies influence purchase intention and actual purchasing behavior. Moreover, this study helps practitioners deepen their understanding of social media marketing, which can be used to enhance company performance.

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1. INTRODUCTION

Dramatic changes in consumer behavior have become a major highlight in the continually evolving digital era. The rapid growth of online shopping, especially among Generation Z (Gen-Z), has had a significant impact on how consumers interact with brands and products, particularly in the context of high-involvement products, which are increasingly in demand. Generation Z, a group of consumers born between the mid-1990s and early 2010s, has become a major force in the online shopping market. To survive and thrive in the competitive digital marketplace, it is crucial to understand the factors that influence consumer interest in online shopping for high-involvement products (Qin and De-Juan-Vigaray, 2021) (Huwaida *et al.*, 2024) (Séré de Lanauze and Sirieix, 2022)

"The Theory of Planned Behavior (TPB) has been a relevant theoretical foundation in understanding online shopping behavior. TPB identifies three key components that influence an individual's behavior: attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991) (Tandon et al., 2022). However, in the context of high-involvement products and online shopping, there is potential to expand this framework by considering additional factors such as trust and brand loyalty (Guo and Luo, 2023). Studies show that Generation Z tends to be more technologically savvy and has different preferences when it comes to shopping experiences. They are more inclined to use mobile devices and social media platforms in their purchasing process (Choi et al., 2024). Generation Z also places greater emphasis on the emotional value of products compared to previous generations, seeking unique and meaningful experiences in their purchases (Park et al., 2023).

Online shopping has experienced significant growth, yet there is a contradictory phenomenon where many consumers decide to abandon their purchase at the checkout stage. Data from Baymard Institute (2019) shows that the average cart abandonment rate has reached 70% over the past four years. This indicates that only a small portion of online consumers complete their transactions after reaching the payment stage. Previous research has shown that the decision to cancel a purchase often occurs after consumers have decided to buy a product and proceed to checkout (Rodrigues et al., 2024) (Gao et al., 2024) (Cheng and Lin, 2023). Reasons for this can vary, from inconvenience in the payment process to a lack of trust in the website or seller. One approach to gaining deeper insights into online shopping behavior is by integrating social media-related variables into the TPB framework. Social media has transformed how consumers interact with brands and products, providing a platform for exploration, interaction, and self-expression (Sembada and Koay, 2021) (Tata et al., 2021) (Pang and Wang, 2023). Social media marketing is not just about advertising products, but also about building relationships and engagement with consumers.

Considering variables from TPB and MTPB, this study aims to answer questions about consumer behavior in the context of high-involvement online shopping. Through in-depth analysis, it is expected to understand how social media interaction and consumer attachment influence online shopping interest, as well as how Generation Z's shopping patterns affect current online shopping dynamics (Alalwan et al., 2017). Previous studies have not yet developed a strong model to examine Gen-Z's online shopping behavior both during and post-behavior. Demand and supply that can be developed as a problem-solving approach in this research is conducted by using the Theory of Planned Behavior (TPB) to understand Gen-Z's online purchasing behavior, moderated by high-involvement products. Given the significant growth of Gen-Z's online shopping trends in Indonesia, this study seeks to fill a research gap that simultaneously serves as a novelty.

Novelty 1: The Theory of Planned Behavior (TPB) is a theoretical framework commonly used to understand consumer purchase behavior. TPB assumes that purchase intention is a strong predictor of purchase behavior, but research has shown that online purchase intentions do not always convert into actual purchases (Djafarova and Fouts, 2022), indicating a gap between TPB assumptions and observed phenomena. Within the Modified Theory of Planned Behavior (MTPB) context, background factors like social media influence play a crucial role in shaping online purchase intentions and behaviors of Gen-Z. This factor, including electronic word-of-mouth (eWOM) such as reviews and recommendations on social media, affects perceptions and purchase decisions. This highlights differences between TPB assumptions and the role of social media factors in online purchase behavior that require further investigation (Xiao et al., 2022) (Salmiah et al., 2024).

Novelty 2: The lack of relevant instruments and measurements is an empirical gap in understanding Gen-Z's online purchase behavior. Accurate evaluations of purchase intentions at both individual and aggregate levels are still not adequately available. To better understand Gen-Z's online shopping behavior, valid and reliable measurement tools are needed. There exists a gap between the significant growth in e-commerce transactions in Indonesia and the low completion rate of online transactions, indicating a discrepancy between technology adoption and Gen-Z's trust in online purchases. Additionally, there is a gap between the rising number of social media users and changes in consumer behavior when searching for product and brand information, indicating a shift in company-consumer communication that is not yet fully understood in the context of consumer purchase behavior and brand attachment.

Novelty 3: Generation Z's online shopping behavior faces a theoretical gap between theory and practice, as well as an empirical gap in measurement instruments and understanding of social media's influence. To address this, in-depth research and development of improved measurement tools are needed (Kumar *et al.*, 2023) (Bilal *et al.*, 2023). Furthermore, a study that simultaneously measures social media marketing variables, purchase intentions, consumer attachment, actual purchases, moderated by high-involvement products, has not been conducted before.

2. LITERATURE REVIEW AND HYPOTHESES

2.1 Social media marketing, purchase intention, consumer engagement, actual purchase, high-involvement products

Advances in information and communication technology, particularly through social media, have transformed the way companies interact with consumers. Social media marketing now serves not only as a promotional tool but also plays a key role in building long-term relationships between brands and customers. In this context, understanding purchase intentions, consumer engagement, and high-involvement products is highly relevant. Social media marketing can be defined as a strategy employed by companies to reach consumers through digital platforms such as Facebook, Instagram, and Twitter.

According to (Cheung *et al.*, 2020), (Bryła *et al.*, 2022), and (Srivastava *et al.*, 2023), social media provides a space for companies to communicate directly with consumers, enabling real-time feedback collection. This helps businesses understand consumer needs and preferences, which in turn enhances the effectiveness of their marketing strategies. Purchase intention is a crucial indicator that influences a consumer's decision to buy a product. This intention can be shaped by various factors, including product quality, price, and social influence. As noted by (Hajli, 2020), (Cambra-Fierro *et al.*, 2021), and (Shukun and Loang, 2024), a positive attitude toward the product and subjective norms can enhance purchase intentions, ultimately impacting consumers' purchasing decisions. Consumer engagement refers to the level of emotional closeness that consumers feel toward a brand. Research by (Dhaoui and Webster, 2021) and (Coelho *et al.*, 2019) shows that consumer engagement directly influences brand loyalty. Consumers with strong emotional attachment are more likely to make repeat purchases and recommend the product to others. In social media marketing, this engagement can be strengthened through active and relevant interactions between brands and their consumers. Actual purchases refer to products or services that consumers have truly bought. (Alaei *et al.*, 2022), (Maslowska *et al.*, 2020), (Luo *et al.*, 2021), and (Li *et al.*, 2021) explain that high-involvement products, such as electronics or fashion items, often require more attention and information before consumers decide to buy. Through social media, companies can boost consumer engagement, which in turn influences purchasing decisions. In today's digital era, social media marketing is an effective tool for increasing purchase intention and consumer engagement, ultimately leading to actual purchases of high-involvement products. Therefore, companies need to understand and leverage these relationships to enhance their marketing strategies and create more meaningful interactions with consumers.

2.2. Social media marketing and consumer engagement

Social media marketing (SMM) enables companies to reach consumers directly through digital platforms such as Facebook, Instagram, and Twitter. Engaging and relevant interactions between brands and consumers can enhance emotional attachment, which plays a crucial role in building brand loyalty. SMM allows consumers to provide real-time feedback, aiding companies in understanding consumer needs and preferences. Additionally, electronic word-of-mouth (eWOM) influences consumer perceptions and purchase decisions, as online reviews and recommendations strengthen purchase intentions. Personalized and interactive content is essential for boosting consumer engagement and encouraging repeat purchases (Dessart *et al.*, 2015), (Felix *et al.*, 2017), (Luo *et al.*, 2021), (Nguyen *et al.*, 2020).

H1: Social Media Marketing has a positive influence on Consumer Engagement.

2.3. Social media marketing and purchase intention

Social media marketing (SMM) and purchase intention are closely linked, with SMM influencing consumer purchase intentions through interaction, engagement, and more personalized

communication. When brands communicate with consumers via social media platforms such as Instagram, Facebook, or Twitter, consumers receive faster and more relevant information, which can shape their perceptions of a product. Research indicates that electronic word-of-mouth (eWOM), relevant content, and real-time feedback can encourage consumers to consider making a purchase. Moreover, personalized content and active consumer engagement with brands on social media strengthen purchase intentions. Interactive content and targeted promotions that align with consumer preferences can accelerate purchase decisions. This demonstrates that social media marketing is not only a tool for increasing brand awareness but also directly impacts consumers' purchase intentions (Cheung et al., 2020), (Nguyen et al., 2020).

H2: Social Media Marketing has a positive influence on Purchase Intention.

2.4. Consumer engagement and purchase intention

Consumer engagement and purchase intention have a direct and mutually reinforcing relationship. Consumer engagement refers to the emotional closeness developed between consumers and a brand, often fostered through active interactions on social media or other digital platforms. Research indicates that consumers who feel emotionally connected to a brand are more likely to have higher purchase intentions, as they perceive a stronger bond and trust in that brand. Ongoing interactions, personalized content, and electronic word-of-mouth (eWOM) further enhance this engagement, ultimately driving purchase intentions. Strong engagement not only influences purchase intent but also increases the likelihood of repeat purchases and word-of-mouth recommendations (Cheung et al., 2020), (Nguyen et al., 2020).

H3: Consumer Engagement has a positive influence on Purchase Intention.

2.5. Consumer engagement mediates the relationship between social media marketing and purchase intention

Consumer engagement mediates the relationship between social media marketing (SMM) and purchase intention by strengthening the emotional bond between consumers and brands. SMM enables consumers to interact directly with brands, providing a personal experience through relevant content and enhancing consumer engagement. When consumers feel more connected to a brand, their emotional attachment increases, significantly influencing their purchase intentions. Consumer engagement plays a crucial role as a link between social media marketing activities and purchase intent, where active interactions on social media shape consumers' perceptions of the brand and foster loyalty. Research indicates that strong engagement boosts purchase intentions, accelerates purchase decisions, and enhances the likelihood of repeat purchases and recommendations (Cheung et al., 2020) (Nguyen et al., 2020).

H4: Consumer Engagement mediates the relationship between Social Media Marketing and Purchase Intention.

2.6. Purchase intention and actual purchase behavior

Purchase intention and actual buying behavior are closely related, with purchase intention often serving as a primary predictor of consumers' actual buying actions. When consumers have a strong purchase intention for a product, they are more likely to take real purchasing steps. Research indicates that factors such as emotional attachment, consumer experience, and perceptions of product value contribute to the development of purchase intention, which subsequently influences purchasing decisions. Studies also show that social influences and marketing elements, such as engaging advertisements and promotions, can enhance purchase intention, which in turn can lead to increased actual buying behavior. In other words, a high purchase intention can increase the likelihood that consumers will follow through with their purchasing decisions in real-world contexts, indicating a continuity from purchase intention to buying behavior (Okazaki et al., 2020), (Kaur et al., 2021), (McClure and Seock, 2020)

H5: Purchase Intention has a positive influence on Actual purchase Behavior.

2.7. High involvement products moderate the relationship between purchase intention and actual purchase behavior

High involvement products moderate the relationship between purchase intention and actual buying behavior. In the case of high involvement items, such as electronics and luxury goods, consumers tend to conduct more in-depth research before making a purchase (Zhang *et al.*, 2023). Studies indicate that purchase decisions are often influenced by emotional attachment and higher perceived risks compared to low involvement products (Srivastava *et al.*, 2023).

As the level of product involvement increases, the relationship between purchase intention and actual buying behavior becomes stronger (Rajput and Gandhi, 2024). When consumers feel emotionally connected, their purchase intentions are more likely to translate into actual purchases. Additionally, consumer experiences and active interactions via social media enhance this influence (KIM and YANG, 2020). Moreover, Electronic Word-of-Mouth (eWOM) significantly affects purchasing decisions for high involvement products, as consumers seek validation from others prior to making a purchase (Barreto, 2023).

Therefore, high involvement products not only impact the decision-making process but also strengthen the connection between purchase intention and actual buying behavior. Further research is necessary to explore this dynamic across various contexts, particularly in the realm of e-commerce (Ambika *et al.*, 2023).

H6: High involvement products moderate the relationship between purchase intention and actual purchase behavior.

Below is the conceptual framework for the research to be conducted:

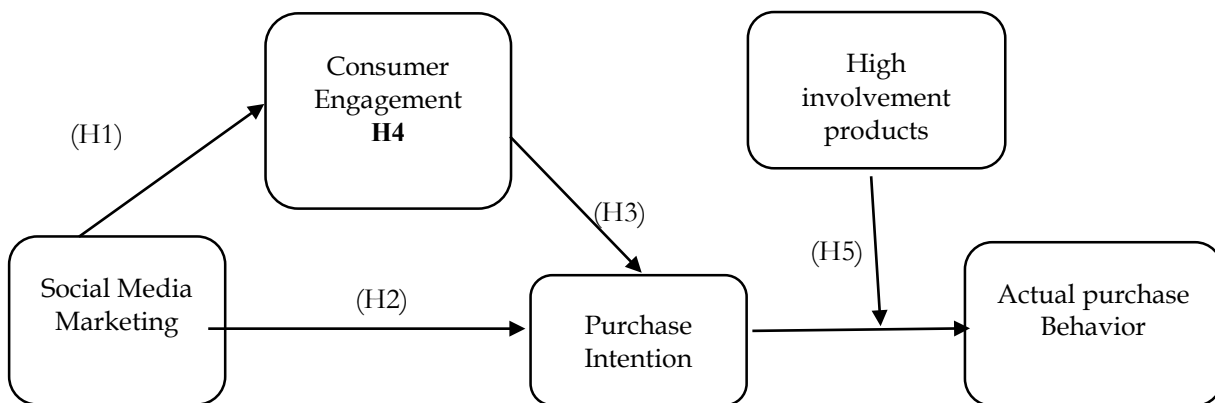


Figure 1: Research model

3. RESEARCH METHODOLOGY

Research design: This study employs a quantitative approach with a causal design, aiming to examine the relationships between the variables and measure both direct and mediated effects. This design was selected to analyze the impact of social media marketing on consumer engagement, purchase intention, and actual buying behavior.

Population and sample: The population in this research includes Generation Z (Gen-Z) students who are active social media users and engage in online shopping. A total of 350 students were selected as the sample using purposive sampling. The sample criteria include: (1) students who are active on social media; (2) those who have made online purchases at least twice in the last three months; and (3) aged between 18-25 years. The sample size was determined using the Slovin formula and considering the relevance to the SEM design, with a minimum recommended sample size of 200 for reliable SEM results. Additionally, normality tests were conducted to ensure that the data met the assumptions of SEM.

Data collection method: Data were collected through a questionnaire developed based on prior literature and validated by experts. The questionnaire comprises several sections, including respondent demographics and statements measuring five key variables: social media marketing, consumer engagement, purchase intention, actual buying behavior, and influencer marketing. Each

variable was measured using a 5-point Likert scale, where 1 indicates "strongly disagree" and 5 indicates "strongly agree." The validity and reliability of the instrument were tested using **Confirmatory Factor Analysis (CFA)** for construct validity and **Cronbach's Alpha** for reliability (Hair et al., 2019)(Byrne, 2013)(Cheung et al., 2020).

Data analysis technique: Hypotheses were tested using **Structural Equation Modeling (SEM)** with the assistance of **AMOS-24** software. SEM was chosen for its ability to analyze direct relationships, indirect (mediating) effects, and moderation between the research variables. The hypothesis testing was conducted in two stages: **Measurement Model (CFA):** This stage tested the validity of indicators in reflecting theoretical constructs using various model fit indices, including Chi-square, Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). **Structural Model:** This stage analyzed the relationships between the constructs and evaluated the strength of the independent variables' effects on the dependent variables, both directly and through mediation. A **Bootstrap** test was used to assess the significance of mediation effects within the model.

Table 1: Operational definitions, indicators, and variable measurement

Jenis variabel dan defenisi	Dimensi	Item/indikator	Skala
Social media marketing is defined as consumers' assessment of their promotional activities or products through social networks in a bold manner	<i>(Entertainment)</i>	<ol style="list-style-type: none"> 1. The information content of a brand on social media looks interesting. 2. Exploring a brand's social media is very enjoyable. 3. Collecting information about products through a brand's social media is quite interesting. 4. Exploring a brand's social media is an easy way to spend time. 	Scala Likert 1-5
	<i>(Customisation)</i>	<ol style="list-style-type: none"> 5. It is possible to find relevant information on a brand's social media 6. A brand's social media provides relevant services 7. A brand's social media provides a direct response to the information I need 8. A brand's social media is easy to understand 9. A brand's social media can be accessed at any time 	Scala Likert 1-5
	<i>(Interaction)</i>	<ol style="list-style-type: none"> 10. Expressing opinions on a brand's social media is quite easy 11. Expressing opinions or having conversations with other users on a brand's social media is quite easy 12. Having two-way interactions on a brand's social media is very Possible 13. Sharing information with other users through a brand's social media is very possible. 	Scala Likert 1-5
	<i>Electronic Word-Of-Mouth</i>	<ol style="list-style-type: none"> 14. I will convey information about brands, products or services from a brand's social media to 	Scala Likert 1-5

		<p>my friends</p> <p>15. I am willing to upload content from a brand on my social media page</p> <p>16. I want to share opinions about brands, goods or services obtained from a brand's social media with my friends</p>	
	<i>(Trendiness)</i>	<p>17. A brand's social media provides up-to-date content</p> <p>18. Following a brand's social media is trendy</p> <p>19. A brand's social media content provides up-to-date information</p>	Scala Likert 1-5
Consumer engagement is defined as "behavior that goes beyond the transaction, and can be specifically defined as the manifestation of customer behavior that has a focus on the brand or company, is beyond the purchase and results from motivational drivers"	<i>(Cognitive processing)</i>	<p>1. When using a product, I think about this brand</p> <p>2. I think about this brand when I use a product</p> <p>3. Using this brand of bicycle stimulates my interest in learning more about the brand</p>	Scala Likert 1-5
	<i>(Affection)</i>	<p>4. I feel very positive when I use this brand</p> <p>5. Using this brand makes me happy</p> <p>6. I feel happy when I use this brand</p> <p>7. I am proud to use this brand</p>	Scala Likert 1-5
	<i>(Activation)</i>	<p>8. I spend a lot of time using this brand compared to other brands</p> <p>9. Whenever I use a product, I usually use this brand</p> <p>10. I use this brand often</p>	Scala Likert 1-5
Purchase interest can be classified as one of the components of consumer cognitive behavior regarding how individuals intend to buy a particular brand or product. Based on this definition and referring to.		<p>1. I would buy this brand rather than any other brand available.</p> <p>2. I am willing to recommend others to buy this brand.</p> <p>3. I intend to buy products from this brand in the future.</p>	Scala Likert 1-5
Actual Buying Behavior is the actual behavior shown by customers to purchase a product		<p>1. Have made purchases</p> <p>2. Frequent purchases</p> <p>3. Have purchased many products</p>	Scala Likert 1-5
High involvement products, or products with high involvement, play an important role in moderating the relationship between purchase intention and actual purchases		<p>1. Have a higher price</p> <p>2. High risk in terms of quality</p> <p>3. Have a greater emotional involvement.</p> <p>4. Sophisticated products often require understanding</p>	scala Likert 1-5

		<p>5. Purchase decisions have long-term impacts</p> <p>6. Usually seek more information and do in-depth research before buying</p> <p>7. Brands often play an important role</p>	
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4. RESEARCH RESULT

4.1. Respondent characteristics

Table 2: Respondent characteristics

Characteristic		Number	Percentage (%)
Gender	male	157	49.2
	female	162	50.8
Age	< 20 years old	97	30.4
	>51	4	1.3
	21 s/d 30 years old	167	52.4
	31 s/d 40 years old	34	10.7
	41 s/d 50 years old	17	5.3
Education	Bachelor's Degree (S1)	256	80.3
	Master's Degree (S2)	63	19.7
Respondent Experience	Yes	319	100
	no	0	0
Frequently Used Social Media	facebook	162	
	Instagram	240	
	youtube	177	
	twitter	69	
	Dll	100	
Frequency of Using Social Media	Rarely	10	3.1
	Occasionally	74	23.2
	Frequently	235	73.7
Duration of Using Social Media	1-2 years	17	5.3
	2-3 years	18	5.6
	3-4 years	31	9.7
	4-5 years	35	10.9
	Less than 1 year	4	1.3
	More than 5 years	214	67.1

The summary of the data shows that the majority of the 162 respondents are female, accounting for 50.8%. The largest group consists of respondents aged between 21 and 30 years, totaling 167 individuals, which represents 52.4%. Among the 319 respondents, the largest group holds a bachelor's degree (S1), with 256 respondents or 80.3%. Additionally, all respondents are known to understand the concept of high involvement, which includes areas such as airline ticket agents, electronics, fashion, and automotive. A total of 240 respondents selected Instagram as the most frequently used social media platform, indicating that the majority of respondents have high intensity in using social media. Based on the duration of usage, the largest number of respondents are those who have used social media for more than 5 years, totaling 214 individuals or 67.1%.

Instrument quality testing

This refers to the evaluation process of the measurement tools or instruments used in research, surveys, or other evaluations. The purpose of this test is to ensure that the instruments used are valid and reliable, thus producing accurate and trustworthy data. The following are the two main components of instrument quality testing:

Validity test

Validity indicates how well an instrument measures what it is supposed to measure. The results of the testing in this study are as follows:

Table 3: Validity test results

Item	Social media marketing	Consumer engagement	High Involvement Product	Purchase intention	Actual purchase intention
SMM3	0.695				
SMM5	0.796				
SMM7	0.731				
SMM10	0.763				
SMM14	0.684				
SMM17	0.624				
CE3		0.614			
CE5		0.816			
CE6		0.862			
CE9		0.618			
HIP1			0.638		
HIP3			0.733		
HIP5			0.753		
HIP6			0.754		
HIP7			0.653		
PI1				0.811	
PI2				0.751	
PI3				0.777	
AP1					0.675
AP2					0.809
AP3					0.686

Source: Processed primary data

Based on Table 2, the results of the loading factor show that all constructs with reflective items or indicators have a loading factor value ≥ 0.07 . Therefore, it can be concluded that all indicators or construct instruments from the variables of Social Media Marketing (SMM), Consumer Engagement (CE), High Involvement Product (HIP), Purchase Intention (PI), and Actual Purchase Intention (AP) are declared valid.

Reliability test

Table 4: Construct reliability and validity model

Construct	Composite Reliability	Average Variance Extracted (AVE)
Social Media Marketing	0.864	0.515
Consumer Engagement	0.822	0.542
High involment product	0.833	0.501
Purchase Intention	0.823	0.608
Actual Purchase Behaviour	0.768	0.527

Source: Processed primary data

Based on Table 4, the results of construct reliability and validity show that the composite reliability value for all constructs in this study is excellent, with figures above ≥ 0.70 . Furthermore, the average variance extracted (AVE) values for all constructs are also very good, with values above ≥ 0.50 . Therefore, it can be concluded that all constructs in this study, namely Social Media Marketing (SMM), Consumer Engagement (CE), High Involvement Product (HIP), Purchase Intention (PI), and Actual Purchase (AP), are declared reliable.

Goodness of fit (GOF) test

The Goodness of Fit (GOF) model test produced favorable conclusions as shown in the following table and figure:

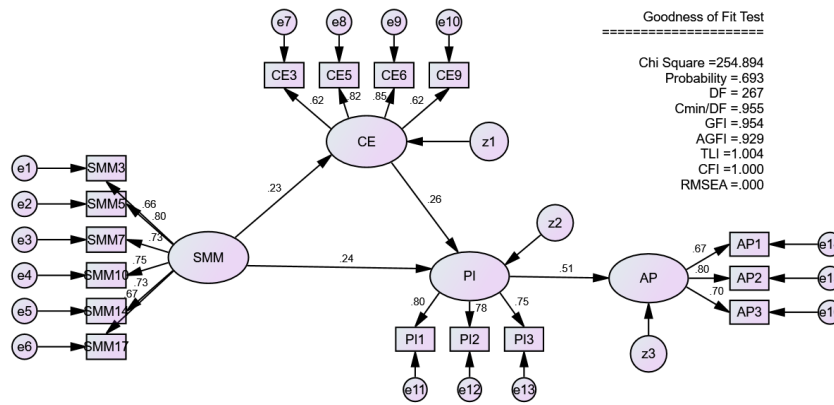


Figure 2: Full model structural equation modeling

Table 5: Goodness of fit analysis results

Criteria	Critical Value	Model Results	Conclusion
X2- Chi-square	Expected to be small	254.894	Good fit
Probability	≥ 0,05	0,693	Good fit
RMSEA	≤ 0,08	0,000	Good fit
GFI	≥ 0,90	0,954	Good fit
AGFI	≥ 0,90	0,929	Good fit
TLI	≥ 0,90	1,004	Good fit
CFI	≥ 0,90	1	Good fit
CMIN/DF	< 2	0.955	Good fit

Source: Processed primary data

The results of the goodness of fit index testing indicate that all parameters meet the expected requirements. Therefore, it can be concluded that this research model satisfies the goodness of fit criteria.

Table 6: Hypothesis testing

Influence			Estimate	S.E.	C.R.	P	Description
SMM	→	CE	0.232	0.07	3.298	***	Significant
SMM	→	PI	0.274	0.08	3.408	***	Significant
CE	→	PI	0.296	0.079	3.728	***	Significant
PI	→	AP	0.421	0.065	6.5	***	Significant
HIP Low X PI	→	AP	0.223	0.085	2.637	0.008	Moderating
HIP High X PI	→	AP	0.717	0.117	6.109	***	Moderating

Note *p-value ≤ 0.05

Table 7: Indirect effects between variables

Hypothesis	Variable Relationship	Standard. Estimate	Z Sobel	P-value	Description
H4	SMM→CE→PI	0.239	2.482	0.000	Significant

Note *p-value ≤ 0.05

The hypotheses can be seen in Table 7. The results of the hypothesis testing concluded that: (1) Social media marketing has a significant positive effect on consumer engagement, (2) Social media marketing has a significant positive effect on purchase intention, (3) Consumer engagement has a significant positive effect on purchase intention, (4) Consumer engagement mediates the relationship between social media marketing and purchase intention, (5) Purchase intention has a significant positive effect on actual purchase, and (6) High involvement products are proven to be a moderating variable in the relationship between purchase intention and actual buying behavior.

5. DISCUSSION

The results of the study on Gen Z demonstrate that social media marketing has a significant positive effect on consumer engagement. Based on the analysis, the regression coefficient of 0.232 with a p-value of 0.000 indicates that the more effective the social media marketing, the higher the level of consumer engagement. This is supported by previous research (Dessart *et al.*, 2015),(Felix *et al.*, 2017)(Luo *et al.*, 2021)(Nguyen *et al.*, 2020), which found a positive correlation between social media marketing and consumer engagement. However, the study (Kumar *et al.*, 2023) indicates that this effect is not always significant, reflecting the complexity of the relationship between marketing and consumer engagement. Social Media Marketing Significantly Affects Purchase Intention. The analysis shows that social media marketing positively influences purchase intention, with a regression coefficient of 0.274 and a p-value of 0.000. This aligns with prior studies (Cheung *et al.*, 2020)(Nguyen *et al.*, 2020) that suggest marketing activities on social media can enhance consumers' purchase intentions. Consumer Engagement Significantly Affects Purchase Intention. The analysis reveals that consumer engagement significantly influences purchase intention, with a regression coefficient of 0.296 and a p-value of 0.000. This study supports findings from research (Cheung *et al.*, 2020)(Nguyen *et al.*, 2020) which discovered that consumer engagement plays a crucial role in increasing purchase intentions. Consumer Engagement Mediates the Relationship Between Social Media Marketing and Purchase Intention. Consumer engagement has been shown to mediate the relationship between social media marketing and purchase intention, with a Sobel test result of 2.482 and a p-value of 0.000. This finding aligns with studies (Cheung *et al.*, 2020)(Nguyen *et al.*, 2020) that also indicate consumer engagement strengthens the effect of social media marketing on purchase intention. Purchase Intention Significantly Affects Actual Buying Behavior The analysis indicates that purchase intention significantly influences actual buying behavior, with a regression coefficient of 0.421 and a p-value of 0.000. This finding is consistent with research (Okazaki *et al.*, 2020),(Kaur *et al.*, 2021)(McClure and Seock, 2020), which states that purchase intention is a strong predictor of actual buying behavior. Overall, the findings of this study support the hypothesis that digital marketing, especially through social media, plays a vital role in enhancing consumer engagement, purchase intention, and actual buying behavior. Consumer engagement has also proven to mediate the relationship between social media marketing and purchase intention, highlighting the importance of marketing strategies focused on consumer interaction and engagement. For low involvement products (HIP Low), the estimated coefficient recorded was 0.223 with a significance value of $p=0.008<0.05$. Meanwhile, for high involvement products (HIP High), the estimate increased to 0.717 with a higher significance level, $p=0.000<0.05$. In the AMOS testing, when there is an increase in the effect on HIP High, the role of this moderating variable significantly strengthens the relationship between purchase intention and actual buying behavior (Zhang *et al.*, 2023)(KIM and YANG, 2020)(Srivastava *et al.*, 2023)(Rajput and Gandhi, 2024). Therefore, high involvement products have proven to be a moderating variable affecting the relationship between purchase intention and actual buying behavior.

6. LIMITATIONS OF THE STUDY

This study cannot be fully generalized to other regions. It is a cross-sectional study, meaning the results do not depict the dynamics or changes of activities over time. Additionally, this research does not use culture as a contextual variable, even though it is known that culture plays a role in influencing an individual's behavior. Future researchers are encouraged to conduct longitudinal studies to understand the causal relationships among related variables, which can better illustrate the dynamics or changes in activities. Furthermore, future studies should aim to be more comprehensive by testing several hypotheses within a cultural context.

The findings related to social media marketing as a means of gathering information and learning about consumers and their engagement with products and brands to enhance consumer purchase intention provide relevant reasons for companies in Indonesia to actively engage in social media marketing efforts. Companies need to recognize that social media is also a viable marketing tool, which, if implemented correctly, can yield positive economic impacts for brands and businesses.

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