

Uncovering the Driving Factors of Microtransactions: Digital Consumer Behavior, In-Game Events, and the Influence of FOMO among Generation Z In Indonesia

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Abstract

The mobile gaming industry has grown rapidly in recent years, with an increasing number of players and significant revenues. One of the main sources of revenue for game developers is microtransactions, which are in-game purchases that allow players to obtain virtual goods or in-game currency. Although microtransactions have become an important source of revenue, there is still little research specifically examining the factors that influence digital consumer behavior in making microtransactions. This study aims to uncover the factors that drive microtransactions among the younger generation in Indonesia, focusing on digital consumer behavior, in-game events, and the influence of fear of missing out (FoMO). This study uses an online survey method with a sample of 250 respondents selected using purposive sampling techniques. The data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with the help of SmartPLS 4.0 software. The results showed that digital consumer behavior, in-game events, and FoMO had a positive and significant effect on microtransactions. In addition, FoMO also acted as a mediator in the relationship between digital consumer behavior and in-game events on microtransactions. This study contributes to the understanding of digital consumer behavior and the factors that influence microtransactions among Generation Z in Indonesia.

Keywords: Microtransactions, Digital Consumer Behavior, In-Game Events, Fear of Missing Out (FoMO)

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INTRODUCTION

Consumer behavior according to (Schiffman & Wisenblit, 2019a) consisting of motivation, interest, personality, and self-concept. Further explained by (Featherman & Hajli, 2016) Interest is a person's conscious motivation to engage in a certain behavior. These factors also play a role in influencing the behavior of digital consumers, who are driven by the ease and convenience of obtaining information and the influence of events within the game. Understanding the motives behind changes in consumer behavior in the digital age has also emerged as an important field of study (Zhou, 2021) . according to (Kalashnikova et al., 2023) The evolution of digital technology has made consumer behavior in the digital economy a highly sought-after area. Over time, digitization has brought about many changes in consumer behavior. The phenomenon of changing consumer behavior in the digital age is in line with the concept of digital consumer behavior, which explains that consumer needs and desires are now increasingly diverse and dynamic, influenced by various factors such as motivation, interests, and individual preferences.

In the context of mobile gaming, digital consumer behavior is reflected in playing habits, the influence of online reviews or trends, and the tendency to purchase virtual items offered

through microtransaction systems. These factors not only play a role in determining initial purchasing decisions, but also influence consumers' intentions to repurchase a product or service.

Consumers use the internet to gather information about products and services, with online reviews, comments on social media, and other online content influencing their decisions (Ebrahimi et al., 2023). Digital consumers are known to be more critical and selective in choosing products. They often use technology as a tool to compare prices, search for product reviews, and look for alternatives before making a decision. Digital consumers expect personalized content and recommendations on online platforms, which increases brand loyalty by providing a unique and engaging experience (Felix & Rembulan, 2023). In such a competitive business environment, understanding digital consumer behavior is crucial for game developers in adjusting their strategies through analysis of how consumers find, compare, and purchase products in mobile games. With such complex dynamics, digital consumer behavior is closely related to the development of technology and digital media.

According to (Kalashnikova et al., 2023) The evolution of digital technology has made consumer behavior in the digital economy a highly sought-after area of study. The motivation for conducting this research arose because there has been little research on how digital consumer behavior and social influence through herding behavior affect microtransactions. There is evidence that although there have been many studies on herding behavior in the fields of economics, finance, cognitive science, social psychology, and marketing, studies on consumer herding behavior in the context of consumer purchasing decisions are a relatively new area of research and have only recently gained attention (Ali & Amir, 2024) To date, there has been no specific research discussing herding behavior in the context of microtransactions in mobile games directly. Herding behavior refers to a person's tendency to follow the decisions or behavior of a group in certain situations. According to researchers, this concept can be adapted to player behavior in the context of microtransactions in mobile games. In the world of mobile gaming, this behavior can occur when players tend to make in-game purchases because they see other players doing so, especially in games that use social or competitive elements, such as multiplayer mobile games or games that show player rankings based on items purchased. Additionally, in-game events, which have not been extensively studied in relation to microtransaction purchases, researchers believe that players frequently exposed to in-game events may be more likely to make microtransaction purchase decisions. This is supported by research conducted by (Kim & Kim, 2019) This phenomenon means that additional analysis is required internally within gaming companies to examine whether such events generate significant financial returns.

The mobile gaming industry is rapidly growing into a promising business field, driven by government support and an expanding ecosystem. Game developers rely on several key revenue models, including microtransactions, which have become one of the most dominant models. Microtransactions are small in-game purchases that allow players to obtain virtual goods or in-game currency using real money. This strategy not only builds player loyalty but also drives revenue for developers. In the context of free mobile games, the in-game sales model is particularly promising, with limited-time events that strengthen loyalty and trigger microtransactions.

This research can help developers understand how these events influence player behavior and spending, enabling them to design more effective event strategies to increase engagement and revenue. In addition, this research also provides insight into the role of elements such as urgency and exclusivity in limited-time events in encouraging players to make purchases. The concept of Fear of Missing Out (FOMO) is also highly relevant in this context.

FOMO describes the feeling of anxiety or fear of missing out on valuable opportunities experienced by players when they see others owning exclusive items or participating in limited events in the game. Players may feel compelled to participate in microtransactions if they see their friends or other players benefiting from them, whether in the form of status, gameplay advantages, or access to exclusive content. Therefore, this research is important to

fill this gap by analyzing how digital consumer behavior, in-game events, herding behavior, and FOMO interact in driving microtransaction decisions in mobile games, especially among digitally native consumers from highly socially connected generations, such as Generation Z.

Generation Z, who are digital natives, are one of the most active demographic segments in mobile gaming and microtransactions offered by game developers. A strategy often used to increase mobile game player participation and spending is through in-game events that are temporary in nature and offer exclusive rewards. A strong gaming community within society means that the behavior of the majority of players often becomes the standard followed by other players, also known as herding behavior. Thus, the phenomenon involving digital consumer behavior among Generation Z, in-game event strategies, herding behavior, and the emergence of Fear of Missing Out (FOMO) feelings indicates that there are complex factors that influence microtransaction purchasing decisions in mobile games.

Thus, this study aims to examine the factors driving microtransactions among a specific generation, namely Generation Z, by considering digital consumer behavior, in-game events, and the influence of FoMO.

METHODOLOGY

This research will be conducted in Indonesia, which is one of the largest markets for the mobile gaming industry, with a focus on Generation Z who actively play mobile games. Data will be collected through an online survey using Google Forms distributed via social media, online gaming communities, and WhatsApp groups. Indonesia was chosen as the location for this research based on its large mobile gaming player base and Generation Z's intensity in digital activities, including microtransaction purchases. This research is expected to provide a comprehensive overview of digital consumer behavior and microtransaction purchasing decisions among Generation Z in Indonesia.

Research Population and Sample

The population in this study consists of Generation Z mobile gamers in Indonesia who were born between 1997 and 2012, aged 13-28 years in 2025, actively play mobile games at least once a week, and have made microtransactions. Generation Z was chosen because of their intense involvement with technology and mobile games. The sample was taken using purposive sampling techniques based on relevant criteria, with a minimum number of 250 respondents determined based on the formula by Hair et al. (2010), namely 5-10 respondents for each research indicator. Respondents must meet the predetermined population criteria to provide a concrete picture of the research topic.

Data Analysis Techniques

This study uses the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with the help of SmartPLS 4.0 software. PLS-SEM was chosen because of its flexibility in analyzing complex relationships between latent variables and does not require the assumption of data normality. Data analysis will be carried out in stages, including:

1. Measurement Model Testing (Outer Model): Evaluating the validity and reliability of research indicators through convergent validity testing

(standardized loading factor and Average Variance Extracted (AVE)) and discriminant validity (Fornell-Larcker Criterion and Cross-Loading). In addition, reliability tests were also conducted using Cronbach's Alpha and Composite Reliability (CR).

2. Structural Model Testing (Inner Model): Evaluating the relationship between latent variables in the research model.
3. Hypothesis Testing: Evaluating the significance of the relationship between latent variables in the research model.

Using PLS-SEM, this study can examine direct and indirect relationships between variables, including relevant mediating effects in the research.

RESULTS AND DISCUSSION

Results of Inferential Statistical Analysis

This study uses the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with the help of SmartPLS 4.0 software. PLS-SEM was chosen because of its flexibility in analyzing complex relationships between latent variables and its ability to test mediation effects. This method does not require the assumption of data normality, making it suitable for data that is not normally distributed. Data analysis will be conducted in stages, including testing the measurement model, structural model, and hypotheses, to ensure the validity, reliability, and relevance of the relationships between variables.

Measurement Model Design (Outer Model)

The first stage in data analysis is to evaluate the measurement model (Outer Model), which aims to test the validity and reliability of research indicators. The measurement model ensures that the indicators used can accurately represent latent constructs.

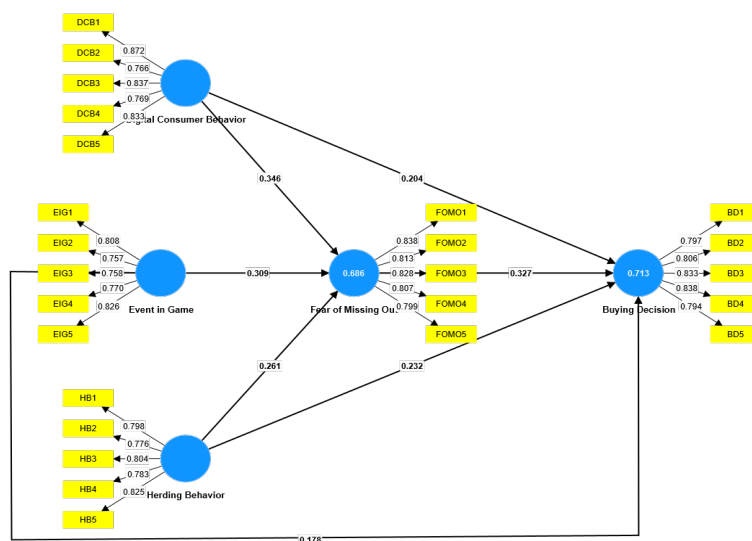


Figure 1. PLS Outer Model
Source: Processed primary data (2025)

Validity Test

Convergent validity was tested to ensure high correlations between reflective indicators within a single construct. Two main metrics were used: standardized loading factor (≥ 0.7) and Average Variance Extracted ($AVE \geq 0.5$), which indicate that the indicators can adequately explain the latent construct. The results of the convergent validity test are presented in the following table.

Table 2. Outer Loading Results

	Buying Decision	Digital Consumer Behavior	Event in Game	Fear of Missing Out	Herding Behavior
BD1	0.797				
BD2	0.806				
BD3	0.833				
BD4	0.838				
BD5	0.794				
DCB1		0.872			
DCB2		0.766			
DCB3		0.837			
DCB4		0.769			
DCB5		0.833			
EIG1			0.808		
EIG2			0.757		
EIG3			0.758		
EIG4			0.770		
EIG5			0.826		
FOMO1				0.838	
FOMO2				0.813	
FOMO3				0.828	
FOMO4				0.807	
FOMO5				0.799	
HB1					0.798
HB2					0.776
HB3					0.804
HB4					0.783
HB5					0.825

Source: Processed primary data (2025)

Table 3. Average Variance Extracted Result

	Average Variance Extracted (AVE)
Buying Decision	0.663
Digital Consumer Behavior	0.667
Event in Game	0.615
Fear of Missing Out	0.668
Herding Behavior	0.636

Source: Processed primary data (2025)

The convergent validity test shows that all indicators in the constructs of digital consumer behavior, in-game events, herding behavior, fear of missing out, and buying decisions meet the requirements with outer loading values > 0.70 and Average Variance Extracted (AVE) > 0.50 , so the data is declared valid. Furthermore, discriminant validity testing using the Fornell-Larcker Criterion and Cross-Loading will be conducted to ensure that the latent constructs are clearly differentiated from one another. The results of the discriminant validity test are presented in the following table.

Table 4. Cross Loading Results

	Buying Decision	Digital Consumer Behavior	Event in Game	Fear of Missing Out	Herding Behavior
BD1	0.797	0.590	0.529	0.565	0.551
BD2	0.806	0.603	0.610	0.665	0.647
BD3	0.833	0.650	0.636	0.655	0.611
BD4	0.838	0.658	0.657	0.656	0.656
BD5	0.794	0.567	0.534	0.645	0.544
DCB1	0.656	0.872	0.665	0.673	0.657
DCB2	0.591	0.766	0.599	0.597	0.588
DCB3	0.641	0.837	0.623	0.643	0.625
DCB4	0.605	0.769	0.541	0.582	0.525
DCB5	0.588	0.833	0.580	0.626	0.587
EIG1	0.602	0.619	0.808	0.636	0.607
EIG2	0.594	0.553	0.757	0.567	0.542
EIG3	0.507	0.595	0.758	0.566	0.540
EIG4	0.562	0.553	0.770	0.558	0.500
EIG5	0.598	0.574	0.826	0.589	0.512
FOMO1	0.613	0.604	0.597	0.838	0.575
FOMO2	0.690	0.599	0.620	0.813	0.585

FOMO3	0.617	0.631	0.601	0.828	0.592
FOMO4	0.640	0.642	0.595	0.807	0.636
FOMO5	0.641	0.650	0.628	0.799	0.584
HB1	0.570	0.575	0.528	0.599	0.798
HB2	0.585	0.605	0.546	0.587	0.776
HB3	0.589	0.586	0.507	0.541	0.804
HB4	0.583	0.562	0.554	0.600	0.783
HB5	0.629	0.592	0.610	0.574	0.825

Source: Processed primary data (2025)

Table 5. Fornell-Larcker Criterion Results

	Buying Decision	Digital Consumer Behavior	Event in Game	Fear of Missing Out	Herding Behavior
Buying Decision	0.814				
Digital Consumer Behavior	0.755	0.817			
Event in Game	0.732	0.738	0.784		
Fear of Missing Out	0.784	0.766	0.745	0.817	
Herding Behavior	0.742	0.732	0.690	0.728	0.797

Source: Processed primary data (2025)

The discriminant validity test in this study was conducted by reviewing the results of data analysis using the cross loading approach, where, referring to Table 4, it can be confirmed that the correlation of measurement items or indicators with their constructs is greater than the correlation values with other constructs. Furthermore, this study also conducted a discriminant validity test using the AVE root value, which can be confirmed based on Table 5, that the AVE root value obtained for a construct is greater than the correlation value with other constructs. Thus, it can be said that the data has met the discriminant validity requirements well.

Reliability Test

Reliability was tested to ensure the consistency of respondents' answers to the indicators in the research construct. The two main indicators of reliability are Cronbach's Alpha, which is considered reliable if the Cronbach's Alpha value is ≥ 0.7 , and Composite Reliability (CR): The CR value must also be ≥ 0.7 to indicate that the

construct has good internal consistency. The results of the validity and reliability tests at this stage are used to determine whether the indicators in the study can be used for further analysis. The reliability test results can be seen in the following table:

Table 6. Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Buying Decision	0.873	0.908
Digital Consumer Behavior	0.874	0.909
Event in Game	0.843	0.889
Fear of Missing Out	0.876	0.910
Herding Behavior	0.857	0.897

Source: Processed primary data (2025)

Data reliability testing in this study was conducted using two approaches, namely Cronbach's alpha and composite reliability. Table 6 confirms that all variables used, namely digital consumer behavior, in-game events, herding behavior, fear of missing out, and buying decisions, obtained Cronbach's alpha and composite reliability values above the requirement of 0.70. Thus, it can be concluded that the data in this study is reliable.

Structural Model Design (Inner Model)

The next step is to evaluate the structural model, which aims to test the relationship between latent constructs in the research model. This testing is carried out in several stages, starting with R-Square (R²), where R² is used to measure the level of contribution of independent variables to dependent variables.

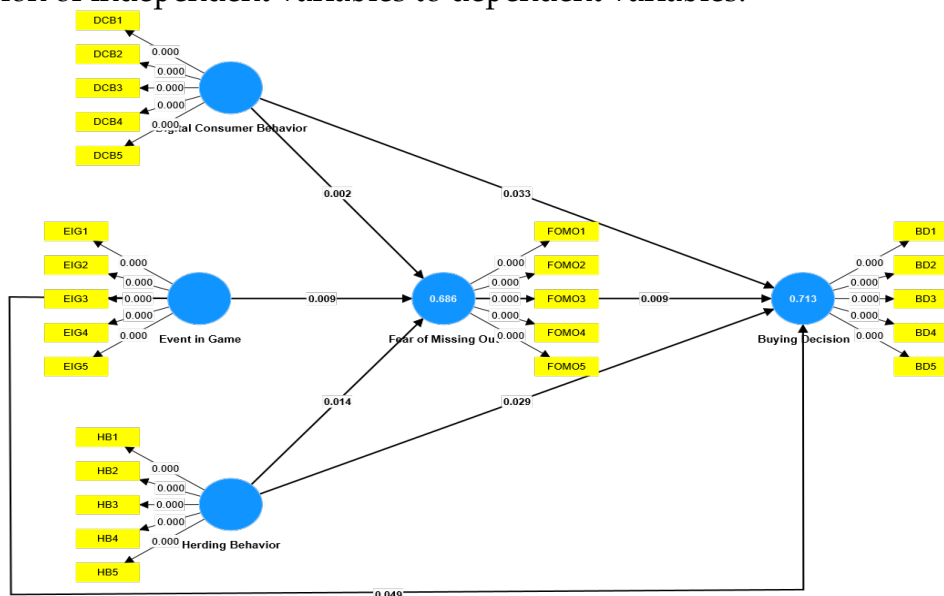


Figure 2. PLS Inner Model

Source: Processed primary data (2025)

a. R-Square (R²)

The R² value shows how much of the variability in the dependent variable can be explained by the independent variable. The interpretation of the R² value is R² ≥ 0.67: Strong model, R² 0.33–0.66: Moderate model, R² 0.19–0.32: Weak model. The R² results can be seen in the table below:

Table 7. R-square results

	R Square	R Square Adjusted
Buying Decision	0.713	0.708
Fear of Missing Out	0.686	0.682

Source: Processed primary data (2025)

The coefficient of determination test shows that the variable fear of missing out can be predicted by 68.6% by digital consumer behavior, in-game events, and herding behavior, with strong predictive power. Meanwhile, the variable of buying decision can be predicted by 71.3% by digital consumer behavior, in-game events, herding behavior, and fear of missing out, also showing strong predictive power. The rest is predicted by other factors outside the research model.

b. Q-Square (Q²)

The next step is to test Q-Square Predictive Relevance (Q²). Q² testing is used to evaluate the model's ability to predict dependent variables. A Q² value greater than 0 indicates that the model has good predictive ability, with the following interpretations: Q² > 0.35: Strong prediction, Q² 0.15–0.35: Moderate prediction, Q² < 0.15: Weak prediction. The Q² results can be seen in the calculation below:

$$Q^2 = 1 - (1 - R_1^2) (1 - R_2^2)$$

$$Q^2 = 1 - (1 - 0.686) (1 - 0.713)$$

$$Q^2 = 1 - (0.314) (0.287)$$

$$Q^2 = 1 - 0.090$$

$$Q^2 = 0.91 \sim 91\%$$

A Q² value of 0.91 indicates that the model has very strong predictive power for the dependent variables in the model. This indicates that the model used in this study is highly relevant in terms of prediction and is able to explain the variability of the data significantly. Thus, this model is suitable for use in prediction and decision-making, as the Q² value is well above the threshold for strong prediction (Q² > 0.35).

c. Goodness of Fit (GoF)

Goodness of Fit (GoF) is used to evaluate the overall suitability of a model. The GoF value helps determine whether the model as a whole is suitable for the research data. The GoF results can be seen in the calculation below:

$$GoF = \sqrt{AVE \times R^2}$$

$$GoF = \sqrt{0.650 \times 0.699}$$

$$GoF = \sqrt{0.454}$$

$$GoF = 0.674$$

The GoF value of 0.674 indicates that the model has a strong overall level of suitability. The results obtained show that the model in this study has excellent overall model suitability and is suitable for hypothesis testing and prediction.

d. Hypothesis Testing

The final stage in data analysis is testing the research hypothesis. This test is performed using the bootstrapping method in SmartPLS software. Bootstrapping generates T-statistics and p-values for each relationship between variables. The criteria for accepting hypotheses used for one-tailed analysis are t-statistic > 1.65 and p-value < 0.05. The results of the hypothesis test can be explained as follows

Table 8. Hypothesis Test Results

		Original Sample	T Statistics	P Values
H1	Digital Consumer Behavior → Fear of Missing Out	0.346	2.919	0.002
H2	Event in Game → Fear of Missing Out	0.309	2.374	0.009
H3	Herding Behavior → Fear of Missing Out	0.261	2.192	0.014
H4	Digital Consumer Behavior → Buying Decision	0.204	1.843	0.033
H5	Event in Game → Buying Decision	0.178	1.654	0.049
H6	Herding Behavior → Buying Decision	0.232	1.894	0.029
H7	Fear of Missing Out → Buying Decision	0.327	2.373	0.009
H8	Digital Consumer Behavior → Fear of Missing Out → Buying Decision	0.113	1.663	0.048
H9	Event in Game → Fear of Missing Out → Buying Decision	0.101	1.940	0.026
H10	Herding Behavior	0.085	1.769	0.038

→ Fear of Missing
Out
→ Buying Decision

Source: Processed primary data (2025)

Hypothesis testing was conducted using the bootstrapping method, which, referring to Table 7, confirmed that the direct effect between constructs met the requirements, namely a t-statistic value above 1.65 with p-values below 0.05. In addition, the bootstrapping test results in Table 8 also confirm that the fear of missing out construct is proven to be able to act as a mediating variable, as indicated by the t-statistic value exceeding 1.65 with p-values less than 0.05.

Discussion

The Relationship Between Digital Consumer Behavior and FoMO

The results of the data analysis show that digital consumer behavior has a positive and significant effect on fear of missing out (FoMO), with a path coefficient value of 0.346 and a t-statistic value of 2.919 (> 1.65) and a p-value of 0.002 (< 0.05). These findings indicate that the higher the intensity of consumer behavior in the digital world, the greater their anxiety about being left behind from current information or trends.

The results of this study are supported by research (Przybylski, Murayama, DeHaan, et al., 2013) that the intensity of consumers in the digital environment can trigger FoMO because they do not want to be left behind by trends or experiences enjoyed by many people. The results of research conducted by (Good & Hyman, 2020) reveal that it is not surprising that the use of digital media makes people worry about missing out on experiences enjoyed by close friends or family members. Digital Consumer Behavior refers to consumer engagement with digital content and how often they use digital products, such as mobile games in the context of this study. Consumers who are intensely engaged with mobile games tend to have high expectations for an enjoyable gaming experience, so they do not want to miss any opportunities offered through in-game features such as exclusive items and discounts.

The Relationship Between In-Game Events and FoMO

The results of the data analysis show that in-game events have a positive and significant effect on fear of missing out (FoMO), with a path coefficient value of 0.309 and a t-statistic value of 2.374 (> 1.65) and a p-value of 0.009 (< 0.05). These findings indicate that the more frequent and interesting an in-game event is, the greater the level of anxiety among players, especially among Generation Z, about missing out on the experience.

The findings of this study are in line with marketing theory by (Kotler & Keller, 2019) that time scarcity in promotions can increase consumers' perception of a product's value and encourage impulsive purchases. In the context of mobile games, in-game events can trigger players' FoMO, as players feel afraid of missing out on a rare opportunity. In-game events drive player engagement and influence player behavior due to their limited duration, which significantly contributes to in-game monetization. For example, an event offering unique rewards can trigger in-app purchases. According to (Lorriane, 2024), these events are designed to create a sense of urgency, excitement, and exclusivity, encouraging player engagement and in-game spending.

The Relationship Between Herding Behavior and FoMO

The third hypothesis formulated in this study proved to be acceptable. The results of data analysis using the bootstrapping method confirmed that the relationship between the herding behavior construct and FoMO was positive, as indicated by the path coefficient value obtained, which was 0.261. Thus, it can be concluded that herding behavior has a positive and significant effect on fear of missing out. This finding indicates that the stronger an individual's tendency to follow the behavior or decisions of others, the higher the level of FoMO they feel.

The results of this study reinforce previous findings that fear of missing out (FoMO) can influence consumer behavior, especially in the pre-purchase phase. This study also shows that FoMO can play a role in the consumption and post-consumption phases, especially in situations involving social participation and peer pressure. The theory of herding behavior explains that individuals tend to follow the actions of the majority when they feel uncertain or lack information, so FoMO can become an emotional drive to follow these actions and avoid feelings of being left behind. In the context of mobile games, this can trigger players to immediately act on events or purchase exclusive items that are considered valuable by the majority.

The Relationship Between Digital Consumer Behavior and Buying Decisions

The fourth hypothesis formulated in this study proved to be acceptable. The results of data analysis using the bootstrapping method confirmed that the relationship between the digital consumer behavior construct and buying decision was positive, as indicated by the path coefficient value of 0.204. In addition, the hypothesis testing results also confirm that there is a significant relationship between the digital consumer behavior construct and buying decisions, as indicated by the t-statistic value of 1.843 (> 1.65) with a p-value of 0.033 (< 0.05). Thus, it can be concluded that digital consumer behavior has a positive and significant effect on buying decisions. This finding indicates that the higher the intensity of consumer behavior in digital activities, the greater their tendency to make purchasing decisions.

The findings of this study are in line with those presented (Solomon, 2019) in consumer behavior research, which states that the more often consumers are exposed to and involved with a product, the more likely they are to decide to buy it, especially when they feel familiar and comfortable with the experience. Therefore, it can be assumed that digital consumer behavior has a direct influence on purchasing decisions. Digital Consumer Behavior refers to consumer engagement with digital content that can influence purchasing decisions. Digital consumer behavior is a field of marketing that studies consumer behavior in the online environment on digital platforms (Efendioğlu, 2024). Often, someone who is highly involved in playing games will be more easily exposed to offers within the game, such as limited-time events and exclusive items, thereby increasing the likelihood of making a purchase.

The Relationship Between In-Game Events and Buying Decisions

The fifth hypothesis formulated in this study proved to be acceptable. Data analysis using the bootstrapping method confirmed that the relationship between the in-game event construct and buying decisions is positive, as indicated by a path coefficient value of 0.178. This finding suggests that special in-game events, such as limited-time events, exclusive item promotions, or tournaments, can encourage players to purchase products or items in the game.

The results of this study reinforce the findings of research (Lorriane, 2024) which states that, overall, limited-time events and exclusive rewards have a significant impact on player spending behavior, encouraging engagement, monetization, and community dynamics in online games. In-game events are designed to offer players exclusive items and discounts, and the limited duration of these events can encourage each player to immediately make exclusive microtransactions. Individuals who are frequently exposed to these events are more likely to make microtransactions.

The Relationship between Herding Behavior and Buying Decisions

The sixth hypothesis: The results of data analysis show that herding behavior has a positive and significant effect on buying decisions, with a path coefficient value of 0.232 and a t-statistic value of 1.894 (> 1.65) and a p-value of 0.029 (< 0.05). This finding indicates that the tendency of individuals to follow the behavior or choices of others in a group can influence purchasing decisions. Theoretical support from previous studies shows that in conditions of uncertainty, individuals tend to feel safer following the decisions of the majority. In the context of mobile games and online purchases, this behavior is influenced by consumer reviews, sales figures, and the actions of the surrounding community.

The Relationship Between FoMO and Buying Decisions

The results of the data analysis show that fear of missing out (FoMO) has a positive and significant effect on buying decisions, with a path coefficient value of 0.327 and a t-statistic value of 2.373 (> 1.65) and a p-value of 0.009 (< 0.05). This finding indicates that the fear of missing out on certain experiences or opportunities creates a strong sense of urgency and emotional drive in consumers, prompting them to make purchasing decisions more quickly in order to avoid feeling isolated from their social group.

The findings of this study are consistent with the results of a study (Nasr et al., 2023) which states that most respondents admitted to feeling rushed to buy because of FoMO, especially when shopping online. The influence of others and social pressure also contribute to this feeling. FoMO is the fear of missing out and the fear of missing an opportunity, which is a psychological reaction that can easily trigger impulsive purchasing decisions. In the context of mobile games, psychological factors such as FoMO can easily encourage players to make microtransactions and participate in in-game events.

The relationship between Digital Consumer Behavior and Buying Decision is mediated by FoMO

Eighth, the formulated hypothesis stating that FoMO is able to mediate the relationship between Digital Consumer Behavior and Buying Decision proved to be acceptable. The results of data analysis using the bootstrapping method successfully confirmed that fear of missing out significantly mediates the relationship between digital consumer behavior and buying decision. This finding can be demonstrated by obtaining a t-statistic value of 1.663 (> 1.65) with a p-value of 0.048 (< 0.05). Thus, it can be concluded that fear of missing out significantly mediates the relationship between digital consumer behavior and buying decisions. The results of this study indicate that digital consumer behavior influences purchasing decisions not only directly but also through an increased fear of missing out on opportunities or ongoing trends.

The findings of this study are consistent with the results of a study (Wachyuni et al., 2024) which explains that FoMO has been proven to positively influence purchasing decisions, with research showing that FoMO accounts for around 60% of the variation in these decisions. Digital consumer behavior plays a role in player engagement with digital content; higher player engagement can trigger FoMO. The fear of missing out and missing opportunities can strengthen the player's urge to make immediate purchases so as not to be left behind or miss out on opportunities offered in the game.

The relationship between in-game events and buying decisions is mediated by FoMO.

Ninth, the formulated hypothesis stating that FoMO is able to mediate the relationship between Event in Game and Buying Decision is proven to be acceptable. The results of data analysis using the bootstrapping method successfully confirmed that fear of missing out significantly mediates the relationship between event in game and buying decision. This finding can be demonstrated by obtaining a t-statistic value of 1.940 (> 1.65) with a p-value of 0.026 (< 0.05). Thus, it can be concluded that fear of missing out significantly mediates the relationship between in-game events and buying decisions. The findings of this study indicate that the influence of in-game events on purchasing decisions occurs through an increase in the fear of missing out on opportunities or exclusive experiences in the game.

The results of this study reinforce the findings of the study (Kao & Huang, 2024) that found that shopping via live streaming also highlights the role of FoMO, where consumers' fear of missing out on limited-time offers increases their intention to buy. Marketers leverage FoMO through strategies such as limited-time offers and scarcity tactics, which effectively encourage consumers to act quickly so as not to miss out on opportunities (Özden, 2022). In-game events are often designed to create a sense of urgency that easily triggers FoMO among players. Intensive engagement with digital content and the fear of missing out can encourage players to immediately make microtransactions so as not to miss out on opportunities.

The relationship between Herding Behavior and Buying Decision is mediated by FoMO

Finally, the formulated hypothesis stating that FoMO is able to mediate the relationship between Herding Behavior and Buying Decision proved to be acceptable. The results of data analysis using the bootstrapping method successfully confirmed that fear of missing out significantly mediates the relationship between herding behavior and buying decision. This finding can be demonstrated by obtaining a t-statistic value of 1.769 (> 1.65) with a p-value of 0.038 (< 0.05). Thus, it can be concluded that fear of missing out significantly mediates the relationship between herding behavior and buying decisions. The results of this study indicate that the influence of herding behavior on purchasing decisions occurs through an increase in the fear of missing out on opportunities or social experiences felt by consumers.

The findings of this study are consistent with the results of a study by Kao & Huang (2024). In the world of luxury cosmetics, consumers who fear missing out (FoMO) tend to follow trends or the choices of the majority, which makes them more engaged with the brand and more likely to make purchases together with the group. Herding behavior increases the desire to follow the actions of the group based on social

pressure. In the context of mobile games, when players feel strong social pressure and need to follow the group's decisions in order not to be left behind, it can trigger FoMO as a feeling that drives players to make immediate purchases.

CONCLUSION

Based on the results of the research and discussion, this study produced several key findings as follows:

1. Digital consumer behavior, in-game events, and herd behavior have a positive and significant influence on fear of missing out (FoMO).
2. Digital consumer behavior, in-game events, herd behavior, and FoMO have a positive and significant influence on purchasing decisions.
3. FoMO significantly mediates the relationship between digital consumer behavior, in-game events, and herd behavior on purchasing decisions.

Overall, this study shows that digital consumer behavior, in-game events, and the tendency to follow others can influence purchasing decisions directly or indirectly by increasing the fear of missing out on certain opportunities or experiences.

References :

- Abel, J., Buff, C., & Burr, S. (2016). Social Media and the Fear of Missing Out: Scale Development and Assessment. *Journal of Business & Economics Research (JBER)*, 14, 33. <https://doi.org/10.19030/jber.v14i1.9554>
- Akbar, M. R., Irianto, G., & Rofiq, A. (2018). *International Journal of Multicultural and Multireligious Understanding Purchase Behaviour Determinants on Online Mobile Game in Indonesia*. 16–27.
- Ali, M., & Amir, H. (2024). Understanding consumer herding behavior in online purchases and its implications for online retailers and marketers. *Electronic Commerce Research and Applications*. <https://doi.org/10.1016/j.elerap.2024.101356>
- Ali, M., Amir, H., & Shamsi, A. (2021). *Consumer Herding Behavior in Online Buying: A Literature Review*. 345–360. [https://doi.org/https://doi.org/10.30543/10-1\(2021\)-30](https://doi.org/https://doi.org/10.30543/10-1(2021)-30).
- Amirullah. (2022). PERILAKU KONSUMEN DAN PENGAMBILAN KEPUTUSAN PEMBELIAN. *Akademika : Jurnal Manajemen, Akuntansi, Dan Bisnis.*, 20(2), 169–175. <https://doi.org/10.51881/jak.v20i2.9>
- APJII. (2024). *APJII Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang*. APJII. [https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang#:~:text=Asosiasi Penyelenggara Jasa Internet Indonesia \(APJII\) mengumumkan jumlah pengguna internet,jiwa penduduk Indonesia tahun 2023.](https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang#:~:text=Asosiasi Penyelenggara Jasa Internet Indonesia (APJII) mengumumkan jumlah pengguna internet,jiwa penduduk Indonesia tahun 2023.)
- APJII. (2025). *SURVEI PENETRASI INTERNET DAN PERILAKU PENGGUNAAN INTERNET*. APJII.
- Arisandi, F., & Yuwono, I. (2023). *Pengaruh Harga , Brand Image dan Promosi Terhadap Keputusan Pembelian Virtual Item Game Online Mobile Legend (Studi Kasus di Komunitas Online Mobile Legend)*. 2(4), 347–356.
- Bajunaied, K., Hussin, N., & Kamarudin, S. (2023). Behavioral intention to adopt FinTech services: An extension of unified theory of acceptance and use of technology. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(1), 100010. <https://doi.org/10.1016/j.joitmc.2023.100010>
- Banerjee, A. V. (1992). *A Simple Model of Herd Behavior*. 107(3), 797–817.
- Belk, R. W. (2014). *Extended Self in a Digital World*. 40(3), 477–500. <https://doi.org/10.1086/671052>
- Brown, S. A., & Venkatesh, V. (2005). *Model of Adoption of Technology in Households: A Baseline Model Test and Extension Incorporating Household Life Cycle*. 399–426.
- Chen, V., Rasyidhy, F. A., Son, L., Franciso, L., & Agus, R. (2023). *Factors That Affect A College*

- Student's In-Game Purchase in Batam City*. 10(2), 562–569.
- Chen, Y. (2008). *Herd behavior in purchasing books online*. 24, 1977–1992. <https://doi.org/10.1016/j.chb.2007.08.004>
- Christie, W. G. (1995). *Following the Pied Piper: Do Individual Returns Herd around the Market?* <https://doi.org/10.2469/faj.v51.n4.1918>
- CNBC, T. I. (2024). *Video: Prospek e-Sports RI, Sumber Lapangan Kerja & Pendokrak Ekonomi*. <https://www.cnbcindonesia.com/tech/20240226114953-39-517559/video-prospek-e-sports-ri-sumber-lapangan-kerja-pendokrak-ekonomi>
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications. <https://books.google.co.id/books?id=s4ViswEACAAJ>
- Dihni, V. A. (2024). *Jumlah Gamers Indonesia Terbanyak Ketiga di Dunia*. Databoks. <https://databoks.katadata.co.id/datapublish/2022/02/16/jumlah-gamers-indonesia-terbanyak-ketiga-di-dunia>
- Ebrahimi, P., Khajeheian, D., Soleimani, M., Gholampour, A., & Fekete-farkas, M. (2023). User engagement in social network platforms: what key strategic factors determine online consumer purchase behaviour? *Economic Research-Ekonomika Istraživanja*, 36(1). <https://doi.org/10.1080/1331677X.2022.2106264>
- Efendioğlu, İ. H. (2024). *DIGITAL CONSUMER BEHAVIOR: A SYSTEMATIC LITERATURE REVIEW*. 67–80.
- Featherman, M. S., & Hajli, N. (2016). *Self-Service Technologies and e-Services Risks in Social Commerce Era*. *Self-Service Technologies and e-Services Risks in Social Commerce Era*. March 2015. <https://doi.org/10.1007/s10551-015-2614-4>
- Felix, A., & Rembulan, G. D. (2023). *Analysis of Key Factors for Improved Customer Experience, Engagement, and Loyalty in the E-Commerce Industry in Indonesia*. 5(2), 196–208.
- Fred, J. F., Lu, I., Chen, J. H. F., & Farn, C. (2020). International Journal of Information Management Investigating consumers' online social shopping intention: An information processing perspective. *International Journal of Information Management*, 54(January 2018), 102189. <https://doi.org/10.1016/j.ijinfomgt.2020.102189>
- Good, M. C., & Hyman, M. R. (2020). 'Fear of Missing Out': Antecedents and Influence on Purchase Likelihood. 28, 330–341. <https://doi.org/10.1080/10696679.2020.1766359>
- Hamari, J. (2010). *Game design as marketing: How game mechanics create demand for virtual goods*. 5(1).
- Hamari, J., & Lehdonvirta, V. (2010). *Game design as marketing: How game mechanics create demand for virtual goods*. 5(1).
- Han, B., & Windsor, J. (2013). An investigation of the smartphone user's in-game purchase intention. *International Journal of Mobile Communications*, 11(6), 617–635. <https://doi.org/10.1504/IJMC.2013.057818>
- Heriyanto, D. (2024). *INDONESIA GEN Z REPORT 2024*.
- Hirshleifer, D. (1992). *A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades*. <https://doi.org/10.1086/261849>
- Hirshleifer, D. (1993). *The Blind Leading the Blind: Social Influence, Fads, and Informational Cascades*.
- Hirshleifer, D., & Hong Teoh, S. (2003). Herd Behaviour and Cascading in Capital Markets: a Review and Synthesis. *European Financial Management*, 9(1), 25–66. <https://doi.org/https://doi.org/10.1111/1468-036X.00207>
- Hirshleifer, D., & Teoh, S. H. (2002). *Herd Behavior and Cascading in Capital Markets: A Review and Synthesis*.
- Hodkinson, C. (2019). 'Fear of Missing Out' (FOMO) marketing appeals: A conceptual model. *Journal of Marketing Communications*, 25(1), 65–88. <https://doi.org/10.1080/13527266.2016.1234504>
- Irsyadi, F., & Triwahyu, H. (2024). *The Effect of Customer Experience on Repurchase Intention Through Customer Satisfaction Virtual Products Game Mobile Legends: Bang Bang in Cimahi City, Indonesia*. 24(7), 493–505.

- Kalashnikova, T., Panchuk, A., Bezhula, L., Vladyka, Y., & Kalaschnikov, A. (2023). *Global trends in the behavior of consumers of retail enterprises in the digital economy*. <https://doi.org/10.1088/1755-1315/1150/1/012023>
- Kao, C.-Y., & Huang, C. (2024). Investigating the impact of fear of missing out on inaction inertia in live streaming purchase intention. *Aslib Journal of Information Management, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/AJIM-01-2024-0030>
- Kim, K. H., & Kim, H. K. (2019). *Oldie is Goodie : Effective User Retention by In-game Promotion Event Analysis*.
- Kotler, P., & Keller, K. (2006). *Marketing Management*. Upper Saddle River, New Jersey.
- Kotler, P., & Keller, K. (2019). *Manajemen Pemasaran*.
- Lorriane, S. (2024). *The Impact of Limited-Time Events and Exclusive Rewards on Player Spending in Online Games*.
- Mäntymäki, M., & Salo, J. (2019). *Purchasing behavior in social virtual worlds : An examination of Habbo Hotel*. October. <https://doi.org/10.1016/j.ijinfomgt.2012.12.002>
- Mihaylov, V. (2020). *DRIVERS FOR PURCHASE/REPURCHASE INTENTIONS IN MOBILE GAMES APPLYING THE FREEMIUM BUSINESS MODEL*.
- Nasr, S. A., Sunitiyoso, Y., & Suhaimi, H. (2023). The Effect of Fear of Missing Out on Buying and Post-Purchasing Behaviour toward Indonesia's Generation Z Online Shoppers (Case study: E-Commerce Indonesia). *International Journal of Current Science Research and Review*. <https://api.semanticscholar.org/CorpusID:261758541>