

An Empirical Study of In-App Purchase Intention Behavior of Generation Z in Mobile Games

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Abstract

Background: The rapid evolution of information technology has significantly transformed digital transactions and consumer behavior. Although in-game transactions and the mobile gaming industry are expected to experience significant growth, Generation Z gamers' purchasing behavior remains underexplored.

Objective: This study aims to investigate the factors influencing Gen-Z's intention to make in-app purchase of virtual goods within mobile games.

Methods: Partial Least Square (SmartPLS) analysis was conducted to examine whether live streamers, co-branding, good price, and mobile game loyalty affected in-app purchase intention among Gen-Z gamers.

Results: The results showed that live streamers, co-branding, and good price positively influenced gamers' desire to purchase in-game items. Mobile game loyalty was also found to have the strongest influence on in-app purchase intention.

Conclusion: This study emphasized how game influencers, co-branding, fair pricing, and player loyalty influenced in-app purchase intentions among Indonesian Gen-Z mobile gamers. The findings revealed that using live streamers to showcase game characters, building stronger interactions with players, and offering sales promotions are effective ways to promote more in-app purchases.

Keywords: Co-Branding, Good Price, In-App Purchase Intention, Live Streamers, Mobile Game Loyalty.

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I. INTRODUCTION

The fast growth of information technology has greatly influenced online shopping and consumer behavior. The wider use of the internet has also encouraged the rise of digital payment systems, which now play an important role in modern business. In Indonesia, internet usage reached 79.50% in 2024, with Generation Z making up the largest share of users [1]. Also, around 92.14% of Indonesians between 15 and 24 years own a mobile phone, showing how strongly this group depends on smartphones for internet access [2]. Alongside improvements in digital payment options, the country has experienced a sharp increase in e-wallet and account-to-account transactions, hitting \$1.138 billion in 2024, which marks a 14% growth compared to the previous year [3]. This increase is majorly caused by the adoption of the Quick Response Code Indonesian Standard (QRIS), which facilitates easy transactions between banks and fintech platforms. Moreover, the gaming industry has emerged as a major sector of the digital economy, with 91.1% (149.28 million) of Indonesian gamers preferring to play on mobile devices [4]. Despite contributing \$1.38 billion in mobile game revenue, Indonesian global revenue share in mobile gaming remains relatively low at 4.69%.

According to previous studies, some of the determinants driving in-app purchase intention in mobile games are mobile game loyalty and good price [5]. Mobile game loyalty refers to a player's intention to revisit the game or encourage peers to try it out. When players feel inclined to continue playing a game, there is a greater tendency to spend on virtual items. A study on mobile gamers found that loyal players increased the tendency of in-app purchase, consequently raising game profitability [6].

A good price reflects consumers' perception of whether a product's cost is reasonable and affordable [6]. In the context of mobile gaming, players who believe that in-app features offer fair value for money are more likely to continue making purchases. Previous studies in e-commerce have shown that frequent discounts and promotional offers can effectively convert non-paying users into paying customers, especially when smaller bundles or starter packs are sold at lower prices [7]. As players become more emotionally attached to a game, their willingness to spend typically increases. Moreover, when gamers perceive that the in-game items deliver genuine value, their satisfaction tends to increase [5].

Another factor that strongly influenced in-game spending was the impact of live streamers [8]. The perceived popularity, attractiveness, and professionalism of these streamers often enhanced audience trust. Studies in e-commerce have shown that streamers can significantly shape consumers' buying behaviors and intentions through their influence [9]. Recent findings further indicated that when live streamers are viewed as credible and maintain authentic, personal connections with their followers, audiences are more likely to develop stronger purchase intentions. In addition, followers buying decisions are often the result of emotional influence combined with internal perceptions of the product [10]. A significant relationship was also confirmed between source credibility and the tendency to purchase video games [11]. Therefore, credible sources of information and their recommendations tend to influence purchase decisions more. Influencers who appear ordinary and friendly, but knowledgeable and entertaining, are considered more credible.

Co-branding strategy has proven to be one of the important factors driving purchase intention. A recent study stated that co-branding of food and gaming brands significantly affected consumer purchase intention [12]. It has also been confirmed that when co-branding is viewed positively by consumers, it often leads to higher purchase intention for the unique products offered, an outcome proven in several successful collaborations between the beauty and food industries [13], [14]. However, recent studies emphasized the inclusion of factors such as live streamers and co-branding, which had not been extensively examined in mobile gaming context. The impact of live streamers significantly influences consumer trust and purchase behavior among Gen-Z [8,9,10,11]. Similarly, co-branding has shown a considerable effect on purchase intention in collaborations between gaming and other industries, such as food and beauty [12], [13], [14].

This study is unique because it examined how live streamers, co-branding, pricing, and mobile game loyalty interact to influence Gen-Z gamers. This is an area often overlooked in previous studies, which mainly focused on e-commerce contexts. Gen-Z, often described as true digital natives, has grown up surrounded by mobile technology, with constant access to the internet. Because Gen-Z grew up fully immersed in digital environments, their experiences provide meaningful perspectives on how consumers behave online. Unlike the older generations, they value personalization, respond quickly to social influence, and navigate digital transactions with ease. These characteristics place them at the center of current digital market dynamics, where their preferences and behaviors have a direct impact on how products are monetized. This study focused on Gen-Z participants in Indonesia, and it recognized their continued impact on mobile gaming revenues and digital payment adoption. It explored how live streaming, co-branding, pricing, and game loyalty influence Gen-Z's intention to buy in-game content. Structural Equation Modelling (SEM) was used to examine the relationships among these factors and to test the proposed model. The findings revealed how these variables work together to shape Gen-Z's in-app purchasing behavior. By drawing from concepts in consumer loyalty, pricing, social influence, and marketing, this study provided a deeper understanding of digital consumption patterns. Apart from the theoretical contributions, the findings also offer practical value for gaming companies looking for better ways to increase player engagement and improve monetization approaches.

II. LITERATURE REVIEW

A. Generation Z

Gen-Z refers to individuals born between 1997 and 2012 and represents a generation of consumers with unique digital habits and value orientations. They are often described as tech-savvy, having grown up in a world shaped by digital technology and constant connectivity through smartphones and social media platforms [15]. Being continuously connected has a great impact on how Gen-Z communicate, shop, and handle online payments, which shape expectations and decisions in the digital space. In digital commerce and mobile gaming, Gen-Z is unique for the comfort with mobile devices, preference for speed and personalization, as well as strong tendency to be influenced by peers and social trends. Earlier investigations found that they usually seek convenience and customized experiences, and often make spontaneous purchases when encouraged by friends, influencers, or live streamers [16]. Gaming behavior also differs noticeably from that of older generations. For many Gen-Z gamers, mobile games serve not only as a source of entertainment but also as social spaces to connect, express themselves, and build identities through avatars, cosmetic items, and online communities [17]. Studies further showed that the purchasing behavior in digital environments is guided by emotional engagement, perceived value, social validation, and trust in digital payment systems [18]. Unlike previous generations, their trust tends to rely more on peer feedback and social proof than on conventional advertising or institutional credibility.

B. Mobile Game

Mobile game is defined as any video game that can be played on a portable device such as a smartphone or tablet [5]. This classification excludes games played on console devices such as ASUS ROG Ally or Steam Deck. The evolution of smartphone features such as touchscreens, 3D rendering, and always-on internet connectivity, has supported the rise of high-quality mobile gaming experiences [19]. Although mobile devices are not viewed as the optimal gaming medium, their portability compensates for many disadvantages compared to other gaming platforms [20]. Furthermore, mobile games can be accessed under any circumstances, thereby becoming an ideal option for gamers prioritizing convenient entertainment. Compared to conventional online games, mobile gaming offers simplified access and eliminates the complex setup processes often required by online platforms [21].

Recent studies have explored mobile gaming behaviors among Gen-Z, emphasizing their distinctive engagement patterns and motivational drivers. For example, A recent study in China found that Gen-Z gamers tended to remain attached to a game for an extended period, shaping their spending tendencies. These players are also emotionally engaged in gacha-style mobile games due to character attachment, aesthetic resonance, and social interaction [17]. A study conducted in Indonesia showed that flow experience and escapism positively contributed to mobile game addiction among Gen-Z, consequently fostering game loyalty and in-app purchase intention [22]. Similarly, Zhang described mobile games as virtual “mimetic homelands” for Chinese Gen-Z, spaces where identity, cultural expression, and emotional resonance intersect, emphasizing how social and symbolic motivations drove virtual consumption and purchase behavior [23].

C. Live Streamer

Live streamer is defined as an individual who broadcasts engaging in an activity through platforms such as TikTok, YouTube, or Twitch. Gamers with a strong drive to showcase skills, solid gameplay abilities, or engaging personalities who host their own streams are also categorized as live streamers [24]. Live streaming platforms offer numerous benefits, particularly for marketing purposes. For example, Twitch provides various opportunities for brand promotional activities. Advertisers may place ads in live streaming sessions, generating income for both the streamer and the platform. Furthermore, companies often offer sponsorship deals to streamers involving products relevant to their broadcast. For instance, e-sports sponsors may equip game broadcasters with gaming gear in exchange for on-stream brand exposure. A streamer’s popularity and personality can further enhance brand promotion.

Live streaming allows gamers to showcase products, interact with viewers, and answer questions directly unlike traditional e-commerce, creating a more engaging and interactive shopping experience while helping viewers feel more confident and less uncertain about their decisions [25]. Furthermore, live streaming is compatible with both mobile devices and computers, making it accessible for people to start hosting streams. Through live streaming, any individual can become a content broadcaster using just a smartphone or a computer with a built-in camera and microphone [26].

D. Co-Branding

Co-branding is defined as a strategic partnership involving two or more brands collaborating to create a product or service recognized for a defined duration [27]. It also entails the joint establishment of brands in coordinated marketing activities such as advertising, distribution channels, and product design [28]. When evaluating co-branding success, six dimensions are often considered, namely sufficient brand recognition, strong brand equity, favorable and unique associations, as well as positive consumer perceptions and emotional response. By partnering with a well-known and trusted brand, co-branding in mobile games can positively influence consumer perception [29].

Previous studies have often measured co-branding success through consumer attitude and behavioral intention toward co-branded products. Based on the theory of planned behavior, both attitude and behavioral intention are recognized as predictors of actual consumer behavior [30]. Attitude toward co-branding refers to consumers’ judgments and evaluations of their overall perceptions and feelings toward the co-branded product [31], [32], [33], [34], [35]. Meanwhile, behavioral intention refers to consumers’ intention to purchase the co-branded product [27], [36], [37], [38], recommend it to others [39], and the willingness to pay [38].

E. Good Price

Price signifies the benefit a player gains when the overall perceived expense is lower [40]. It is commonly regarded as a key indicator of what consumers are willing to give up to obtain an item. A good price is defined as the extent consumers perceive that the mobile game service justifies its cost [41]. Individuals differ in perceived price, as the

cost of a product or service can be seen as the monetary sacrifice made in exchange for its value. When players believe the cost of a mobile game service is worth the amount paid, the service tends to be generally perceived as more valuable. Good price is also proven to increase user perception and willingness to pay [41], [42]. Recent empirical studies have shown that emotional drivers such as achievement and social recognition play essential roles in shaping gamers' price sensitivity [43]. Furthermore, enjoyment, social identity, and functional benefits were identified as the primary motivators for virtual item purchases, emphasizing that a good price transcends cost to include monetary value [44].

F. Mobile Game Loyalty

Online loyalty generally refers to a customer's intention to either repurchase from a website or return for future visits [45], [46]. In the context of mobile games, loyalty reflects a player's tendency to play the game again or recommend to others. Studies have shown that loyalty to mobile services is strongly influenced by perceived value [47]. When consumers are loyal to a product or service, the time spent searching for and evaluating different purchase options is significantly reduced. Customer loyalty is also one of the key factors driving the success of e-commerce [48]. In the context of mobile games, this means players with strong loyalty are more inclined and motivated to spend money on the game. According to some analyses, loyalty mediates the impact of game addiction on in-app purchase intention in PUBG Mobile, emphasizing that more loyal players tend to make significant purchases [49]. It was also found that "connect-with-friend" features could foster loyalty, thereby promoting commitment among highly engaged gamers [50].

G. In-App Purchase Intention

Purchase intention can be defined as the process through which consumers decide whether to buy an item digitally, often influenced by personal factors tied to specific brands [51]. It may also refer to situations where customers are inclined to choose a certain product under particular circumstances [52]. The path to purchase typically involves multiple phases, namely product awareness, initial purchase, purchase evaluation, repurchase decision, and repurchasing intention [5], [53]. According to previous studies, monetization features such as loot boxes and psychological pricing operate through reinforcement schedules and emotional engagement to influence purchase decisions [54]. Moreover, social proof and store optimization can improve both download and purchase intention due to the emergence of social media influencers and in-game ads [55].

III. METHODS

A. Research Methodology

This study used quantitative methods, focusing on model development. Furthermore, it utilized survey techniques, including questionnaire distribution and group discussion forums, to evaluate factors influencing purchase behavior. The evaluation focused on respondent behavior among Gen-Z. Subsequently, the collected data were analyzed to validate the hypothesis derived from the measured variables. The outcome of this assessment was used to determine whether the proposed model played a significant role in influencing the in-app purchase intention variable. This evaluation was conducted through hypothesis testing. The theoretical framework of this study is presented in Fig. 1.

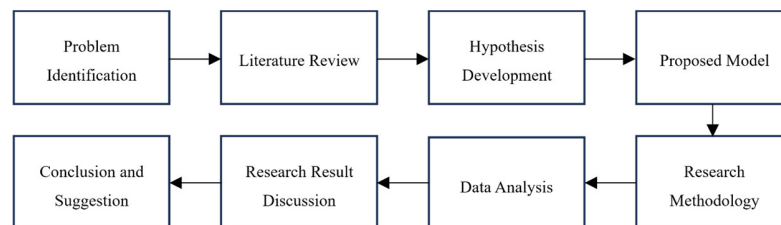


Fig. 1 Theoretical Framework

B. Research Model

The research model was developed by addressing the gap in previous studies related to in-app purchase intention. Previous studies have primarily focused on general consumer behavior across all age groups in non-gaming contexts,

leaving specific influencing factors underexplored. To address this gap, this study examined several factors that influence Gen-Z's intention to make in-app purchases in mobile games. The variables tested were live streamers, co-branding, good price, mobile game loyalty, and in-app purchase intention. These factors were included because of their importance in explaining how Gen-Z players behave when spending money on mobile games. Fig 2 shows the research model that was used for model validation.

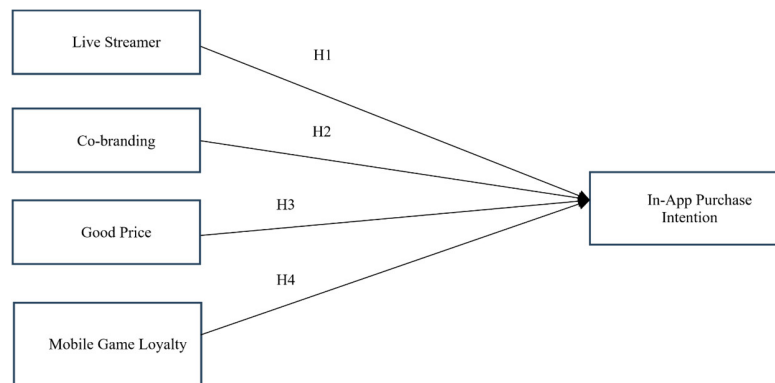


Fig. 2 Research Model

Based on the research model presented in Fig. 2, the following hypotheses were proposed:

- H1:** Effect of live streamers on in-app purchase intention in mobile games.
- H2:** Effect of co-branding on in-app purchase intention in mobile games.
- H3:** Effect of good price on in-app purchase intention in mobile games.
- H4:** Effect of mobile game loyalty on in-app purchase intention in mobile games.

The variables explored in this study reflect essential elements that influence how consumers behave within the mobile gaming environment. Examining the interaction among these factors provides deeper insight into the motivations behind in-app purchases and overall player engagement. Each variable was deliberately chosen for its relevance to the main determinants of players' intention to buy items in mobile games. The first variable, "Live Streamers," plays a significant role in how gamers form opinions and make buying decisions. Within the gaming community, streamers and influencers often serve as opinion leaders who motivate users to make purchases. They do this by demonstrating how specific items work, or by sharing the enjoyment and competitiveness of gameplay in real time. Their credibility, audience connection, and professional style tend to increase player confidence, which can, in turn, encourage stronger purchase intentions.

The second variable, "Co-branding," refers to collaborations between game developers and external partners such as e-payment or technology brands. These partnerships often raise the perceived value of in-game items by linking them to trusted or familiar companies. Co-branding also helps build consumer trust and strengthens players' willingness to spend money on digital goods. The third variable, "Good Price," serves as a major driver for in-app purchases, particularly for players who are mindful of costs. When users feel that the price they pay fairly reflects the value of what they receive, their satisfaction tends to increase. In addition, attractive pricing strategies, such as offering discounts, bonuses, or free items can make the gaming experience more rewarding and foster continued interest. Finally, "Mobile Game Loyalty" influences both ongoing engagement and spending behavior. Loyalty develops when players feel emotionally attached to a game, often through frequent updates, interactive content, and enjoyable experiences. Features like loyalty programs, special events, and personalized rewards deepen this attachment, motivating continued investment. Over time, loyal players often view their spending as part of their ongoing enjoyment and dedication to the game, thereby contributing to its profitability and long-term success.

C. Data Collection

Relevant data were collected from different sources, including books, academic journals, and online materials. In addition, a questionnaire was designed and shared online with the selected participants to collect primary data. The questionnaire was distributed using Google Forms over a period of three months. After data collection, the responses were analyzed and tested for validity using statistical software, specifically SmartPLS. The questionnaire was structured using a Likert Scale with five intervals, represented as follows:

TABLE 1
Likert Scale

Scale	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

A purposive sampling method was used to ensure the selected respondents corresponded with the research objectives. This study focused on 32.2 million Indonesian Gen-Z individuals who played mobile games and had made a minimum transaction for in-game item purchases or game credit top-ups in 2024 [1]. The Slovin formula was used to determine the minimum required sample size, resulting in a minimum of 400 respondents. After the online distribution of questionnaires, a total of 413 responses were obtained.

D. Indicator of Variable

Each variable was described through several indicators that captured the factors influencing in-app purchase intention in mobile games. The indicators were constructed based on the issues identified in the introduction of this study. Table 2 presents the indicators for each variable.

TABLE 2
RESEARCH INSTRUMENT

Variable	Items	Indicators	References
Live Streamers	LS01	Trust in Live Streamers Recommendations	[8], [10], [11]
	LS02	Expertise of Live Streamers on Game Products	[8], [10], [11]
	LS03	Influence on Purchasing Decisions by Live Streamers	[8], [10], [11]
	LS04	Player Dependency on Live Streamers Recommendation	[8], [10], [11]
Co-branding	CB01	Brand Loyalty Engagement	[12], [13]
	CB02	Gaming Brand Recognition	[12], [13]
	CB03	Exposure to Co-branding Activities	[12], [13]
	CB04	Perceived Value of Co-branding	[12], [13]
Good Price	GP01	Perceived Value of In-App Purchase	[6], [7]
	GP02	Perceived Price Fairness in In-Game Purchases	[6], [7]
	GP03	Game Related Purchase Satisfaction	[6], [7]
	GP04	In-Game Purchase Sensitivity	[6], [7]
Mobile Game Loyalty	LL01	Frequency of Playing the Same Game	[5], [6]
	LL02	Willingness to Make Repeat Purchases	[5], [6]
	LL03	Reward Based Player Engagement	[5], [6]
	LL04	Perceived Rewards of Loyalty Programs	[5], [6]
In-App Purchase Intention	PI01	In-App Purchasing Behavior	[5], [53]
	PI02	Performance Based Purchase Intention	[5], [53]
	PI03	Emotional Engagement Behavior	[5], [53]
	PI04	Peer Influence on In-App Purchase	[5], [53]

IV. RESULTS

The final dataset used for analysis comprised 413 responses after distributing questionnaires both offline and online. Table 3 presents the respondents' profiles based on gender, age, education level, occupation, monthly income, geographic location, mobile gaming experience, mobile games played, and top-up platforms used.

TABLE 3
PROFILE OF RESPONDENTS

Description	Frequency	Percentage (%)
Gender		
Male	285	69%
Female	128	45%
Age		
17	31	8%
18	7	2%
19	11	3%
20	25	6%
21	32	8%
22	14	3%
23	41	10%
24	43	10%
25	66	16%
26	65	16%
27	78	19%
Level of Education		
Highschool	181	44%
Diploma Degree	15	4%
Bachelor's degree	192	46%
Master's degree	24	6%
Doctoral Degree	1	1%
Occupation		
Doctoral Student	1	1%
Employee	69	17%
Entrepreneur	43	10%
Freelance	31	8%
Highschool Student	181	44%
Internship	51	12%
Master Student	24	6%
Undergraduate Student	13	3%
Monthly Income		
Less than Rp 3.000.000	199	48%
Rp 3.000.000 - Rp 6.000.000	97	23%
More than Rp 6.000.000	117	28%
Location		
Java Island	380	92%
Sumatra Island	22	5%
Nusa Tenggara Island	11	3%
Mobile Gaming Experience		
1 – 2 years	55	13%
2 – 4 years	80	19%
4 – 6 years	92	22%
6 – 8 years	102	25%
8 – 10 years	43	10%
10+ years	41	10%
Mobile Games		
Mobile Legends: Bang Bang	301	16%
PUBG Mobile	271	14%
Free Fire	174	9%
Genshin Impact	233	12%
Wild Rift	117	6%
Clash Royale	278	15%
EA SPORTS FC Mobile	142	7%
Honor of Kings	191	10%
ROBLOX	200	10%
Top-Up Platforms		
Codashop	219	36%
UniPin	74	12%
Itemku	82	13%
UPoint	43	7%
Others	191	31%

A. Reliability and Validity Analysis

Composite Reliability (CR) and Cronbach's alpha were used to determine whether the instruments were valid and reliable. Cronbach's alpha value greater than 0.6 is considered reliable, while CR value above 0.7 denotes good

reliability [56]. All Cronbach's alpha values were acceptable, with most exceeding the required threshold of 0.6. Furthermore, all composite reliability values were greater than 0.7, confirming the reliability of the proposed variables [57]. Table 4 presents the reliability and validity analysis.

TABLE 4
RELIABILITY AND VALIDITY ANALYSIS

Variables	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Live Streamers	0.756	0.799	0.841	0.572
Co-branding	0.841	0.965	0.857	0.613
Good Price	0.932	0.936	0.951	0.830
Mobile Game Loyalty	0.952	0.953	0.966	0.875
In-App Purchase Intention	0.991	0.991	0.993	0.974

The analysis showed live streamers variable had Cronbach's alpha of 0.756 and CR of 0.841, confirming that the items measuring this construct were consistent and reliable. The rho_A value of 0.799 further supported this consistency, while Average Variance Extracted (AVE) was 0.572. Although live streamers variable had the lowest AVE among all constructs, the indicators used remain valid for capturing the influence of live streamers on Gen-Z's in-app purchase intention.

Co-branding construct showed Cronbach's alpha of 0.841 and CR of 0.857, confirming consistent reliability among its measurement items. The high rho_A value (0.965) showed some redundancy among indicators, but the items were confirmed to be closely correlated with the construct. Moreover, AVE of 0.613 showed that the variable was well-captured by its indicators.

Good Price variable displayed excellent reliability and strong convergent validity, with Cronbach's alpha of 0.932, CR of 0.951, rho_A value of 0.936, and AVE of 0.830. These metrics confirmed that Good Price construct was robustly defined and measured.

Mobile Game Loyalty construct similarly showed exceptional measurement reliability and validity, with a Cronbach's alpha of 0.952, CR of 0.966, rho_A value of 0.953, and AVE of 0.875. With the highest AVE value, this variable showed a high level of reliability and validity, making it one of the most dependable constructs.

B. Hypothesis Testing

Table 5 presents the results of the hypothesis testing. Hypothesis 1 (H1) examines the impact of Game Influencers on in-app purchase intention and produced a p-value of 0.000, confirming strong statistical significance. Therefore, the influence of game influencers played a crucial role in encouraging users to engage in in-app purchase, emphasizing the importance of influencer engagement as a strategy for enhancing payment adoption.

Hypothesis 2 (H2) assesses the relationship between co-branding and in-app purchase intention, showing a p-value of 0.000, which was statistically significant. Therefore, co-branding efforts significantly influenced users' decisions to make in-app purchase in mobile games.

Hypothesis 3 (H3) examines the effect of good price on in-app purchase intention. The variable produced a p-value of 0.041, confirming that price-related factors strongly encouraged Gen-Z users to make in-app purchases due to perceived value. This significant relationship implied that offering discounts or other pricing incentives could effectively stimulate in-app purchase adoption.

Hypothesis 4 (H4) investigates the effect of mobile game loyalty on in-app purchase intention, resulting in a p-value of 0.000, confirming a highly significant relationship. Therefore, mobile game loyalty had a significant impact on users' willingness to engage in in-app purchase.

TABLE 5
HYPOTHESIS TESTING

Hypotheses	p-values	Result
H1: Live Streamers -> In- App Purchase Intention	0.000	Significant
H2: Co-branding -> In- App Purchase Intention	0.000	Significant
H3: Good Price -> In- App Purchase Intention	0.041	Significant
H4: Mobile Game Loyalty -> In- App Purchase Intention	0.000	Significant

V. DISCUSSION

The findings emphasized the strategic importance of live streamers, co-branding, good price, and mobile game loyalty in shaping Gen-Z players' in-app purchasing behavior. Live streamers are influential and trusted figures within gaming communities, using their authenticity and experience to guide players' buying decisions. By presenting in-game items and features during live broadcasts, they help audiences understand and imagine the value of purchasing specific characters, or other virtual assets. This real-time interaction not only builds credibility but also creates a sense of connection and excitement that motivates players to make purchases. This trust factor improved the effectiveness of live streamers endorsements, thereby becoming a powerful marketing tool for game developers aiming to promote in-app purchases. Furthermore, Gen-Z gamers viewed live streamers as peers whose opinions and experiences shaped their in-game purchasing decisions, corresponding with a previous study [8]. This was because live streamers' extensive knowledge made their recommendations more credible. The results also corresponded with [10], emphasizing how live streaming fostered consumer trust and positively influenced purchase behavior through parasocial interactions between streamers and Gen-Z audiences.

Co-branding emerged as another crucial factor in driving in-app purchase intention, as collaborations between mobile games and well-known brands generated excitement and fostered player engagement. Successful co-branding strategies, such as Jujutsu Kaisen x Mobile Legends, namely Bang Bang, created immersive experiences that increased perceived brand value, consistent with previous studies on co-branding [12]. These collaborations not only encouraged in-game spending but also built emotional connections between gamers and partnered brands. The results were in line with previous studies [13] emphasizing that well-executed co-branding strategies fostered credibility and drove consumer enthusiasm, leading to increased adoption of in-game purchases. This occurred because Gen-Z gamers were already familiar with the collaborating brands, increasing the perceived value of related in-game content compared to other options.

The results further emphasized the importance of pricing strategies in shaping purchase behavior. Gamers tend to make purchases when perceiving in-game content as affordably priced and worth the investment. The results corresponded with previous Value Theory studies [6], [7], where Gen-Z gamers tend to purchase game credits when sales promotions are available. Moreover, Gen-Z gamers tend to perceive an in-game item as a "good price" when it fosters their ability to perform better or win in the games played. Therefore, game developers should carefully design pricing models to meet player expectations, ensuring that in-game items are positioned as valuable and accessible to a broad audience.

Finally, mobile game loyalty played a significant role in sustaining long-term in-app purchase, as players who were deeply engaged with a game over time were more inclined to invest in its content. The results also showed gamers tended to return to the same game due to the rewards offered to long-term players, corresponding with previous studies [5], [6] explaining how players made decisions based on the monetary value of in-app items. Reward programs, exclusive benefits, and long-term engagement incentives encouraged repeated transactions and reinforced purchasing habits. Therefore, players who consistently returned to a specific game tended to purchase in-game items due to freely accessible rewards obtained in the game.

Data were collected using online questionnaires and purposive sampling. The online survey proved effective for gathering data from a sample comprised of Gen-Z gamers who had made a minimum of one transaction for mobile game virtual item purchases. Future studies could adopt more structured sampling techniques and draw from a broader participant pool. This current study focused specifically on Gen-Z gamers in Indonesia, limited to Java, Nusa Tenggara, and Sumatra Islands. Therefore, future studies were recommended to include different generational cohorts and a more extensive geographical analysis involving countries with diverse cultures and lifestyles. Also, the research model in this study only focused on live streamers, co-branding, good price, and mobile game loyalty. As a result, other variables such as aspect variables (attractiveness, trustworthiness, and expertise), mediator variables (attitude toward live streamers, brand attitude), and mediating variables (trust in brand/influencer, gender, and age) should be explored in the future.

VI. CONCLUSIONS

In conclusion, this study showed live streamers, co-branding, good price, and mobile game loyalty significantly influenced in-app purchase intention among Gen-Z gamers. Live streamers shaped purchasing behavior by providing credible recommendations of gaming content to audiences, thereby increasing the tendency to purchase in-game content. Furthermore, co-branding strengthened consumer confidence by associating well-known brands with popular gaming titles, which could positively influence the purchasing behavior of in-game items. Good price, on the other hand, influenced in-app purchase intention when gamers perceived the value of the product justified its cost. Collaborations between well-known brands and mobile games could increase gamers' desire to buy in-game items

when holding a positive perception of the brand. Likewise, mobile games rewarding long-term players tended to encourage higher engagement, resulting in increased in-app purchase intention. Collectively, these factors contributed to the understanding of gamer behavior and provided an effective strategy to increase revenue in the gaming ecosystem. These results generally enriched the underexplored literature by integrating consumer loyalty, monetization, social influence, and marketing theories in the context of mobile gaming among Gen-Z. Furthermore, this study offered practical insights for the gaming industry in investigating effective strategies to promote consumer engagement and monetization targeting Gen-Z audiences. Future studies could extend this investigation by including broader demographic samples and longitudinal data to assess behavioral changes over time.

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