



The Effect of Peer Conformity on Intention to Buy In-Game Virtual Goods in Adolescent Free Fire Online Game Players

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Abstract. Along with the development of the internet, people's entertainment has also changed to online games. One of the most played games in Indonesia is Garena Free Fire. This game is a Battle Royale type that combines online multi-player video games and survival games. In addition, this game also sells virtual items in the form of functional and decorative items that can affect the fun and enjoyment of the game. The problem is, virtual goods in games is bought by children and teenagers who don't have financial independence. One of the factors suspected of influencing purchase intention is their conformity to their peers. This study aims to determine the effect of peer conformity on the intention to buy in-game virtual goods among adolescent Garena Free Fire players. The participants were 126 teenagers with the following criteria: aged 11-22 years, being an active player in the Free Fire online game for at least three months (playing individually or in squads), and having purchased virtual goods at least once. Data were collected using peer conformity scale and intention to buy in-game virtual goods scale, then analyzed using Simple Linear Regression. The results showed that the research hypothesis was not proven ($R = .047$, $R^2 = .002$, $F(1, 124) = .600$, $p > .05$). The researcher conducted additional analysis to identify other factors that might explain the intention to purchase in-game virtual goods, such as demographics, motives, and group dynamics. It is recommended that future researchers examine the influence of age, economics, competitive motives (to win competitions, participate in "mabar" or play with friends, and collect the latest virtual items in games), and dynamics in player groups. It could be that peer conformity occurs within a player's squad or community where players are members and not among other players in general.

Keywords: Peer Conformity, Intention To Buy In-Game Virtual Goods, Garena Free Fire, Online Gaming, Virtual Consumerism, Adolescent

1 Introduction

Currently, the internet is an important and inseparable part of everyday life. People can access various kinds of services to meet their daily needs, including accessing entertainment content and activities for fun thanks to the internet. One of the uses of the internet is to play online games. Data shows that around 60.2% of internet users use

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game applications on smartphones. Meanwhile, statistical data reports that the number of mobile game players in Indonesia reached 54.7 million in 2020. The number has increased by 24% compared to 2019 of 44.1 million [1]. The Association of Indonesian Internet Service Providers (APJII) in 2014 stated that the number of internet users who became gamers in Indonesia based on gender was 51.43% male, and 48.5% female [2]. Of all gamers, around 58% are young people under the age of 18 and around 41% are millennials aged 19-29 years [3].

The Free Fire game is one of the most popular games in Indonesia. In 2021, more than 500 million users have downloaded this game application on the Playstore. Free Fire was released in 2017 by the Garena company. Free Fire online game is a game that uses an internet network with the battle royal genre. Furthermore, this game is a game that combines elements of survival and exploration of the game with the gameplay of the last person standing who is called the winner with the term "Boyah" [4]. This game can be played via Android and iOS mobile devices by all groups, from children to adults. This game is often included in matches on the national and international levels [5].

The Free Fire game is equipped with various features, such as characters, weapons, currency, and other features. These features can be obtained by buying virtual items according to the game level that the player wants to achieve. The existence of virtual goods in the game which is called in-game virtual goods can create a feeling of prestige among Free Fire game players when there is victory or defeat. Players will feel superior when they win the game and feel competitive if they lose the game [6]. Lin and Sun [7] describe two types of virtual items or virtual goods in the game Free Fire, namely functional objects, and decorative objects. Functional objects are used to change the in-game appearance of game users, for example characters, skins, weapons, items, diamonds, mapping, and others. While decorative objects include vests, helmets, shoes, costumes, and others.

Hamari and Lehdonvirta [8] explain in-game virtual goods are several virtual assets that are mass-produced so that they can be traded like conventional consumer commodities. These items include items, characters and mass multiplayer game currency and other online tools. In-game virtual goods refer to objects in digital applications that can only be used within the application's environment, for example clothing for avatars, weapons, or more powerful tools.

Researchers have conducted a preliminary study of 45 teenage game users with status as students to understand the buying behavior of in-game virtual goods Free Fire game players. The results show that on average they purchase in-game virtual goods in the Free Fire game 1 to 3 times a month. The most purchased features are Diamonds and Skins. The survey results show that 92.3% of users feel that they don't always have to buy game features when playing games. Players buy game features only when they feel like buying them. Most of them make purchases for the reason of imitating or following their peers so they can adapt to their group, especially when playing together (in Indonesia it is often called "*mabar*" or playing together). They feel they have to buy to improve playing performance and win games so it is a matter of pride to own virtual goods, especially those that are currently popular. However, the problem that occurs is

that in general these game players are students who do not yet have financial independence and are still dependent on their parents. Parents feel that buying virtual goods in games is wasteful behavior

The behavior of buying virtual goods begins with a psychological aspect, namely intention. Ajzen and Fishbein [9] explain that intention is a person's subjective possibility to perform a certain behavior. Purchase intention is a series of activities that involve individual attention before arriving at a buying decision. Purchase intention is the initial formation of buying behavior, starting with attention to the product, a psychological process that involves belief in the product, attitudes toward the product which are then considered for evaluating alternatives, and then making a decision to choose the product [10]. The intention to buy In-Game Virtual Goods is an individual's intention to fulfill the intended wants in this case game features, including functional and decorative items.

Based on the theory of planned behavior, many factors influence a person's purchase intention, namely: attitudes, subjective norms, and perceived control over buying behavior or perceived behaviors control [9]. In terms of playing games, buying intentions that occur in adolescent online game players can be caused by subjective norms. One source of subjective norms is their peers as significant other. The desire to have or do the same things as their peers and not want to appear different encourages conformity.

Santrock et al. [11] stated that adolescents tend to be involved in all types of conformity behavior, both positive and negative. This will become a problem if teenagers enter a group of peers who are strong and have a big influence on a teenager to consume a product, while they do not yet have financial capabilities. Teenagers are easily influenced by product advertisements displayed by manufacturers. Their group can influence the intention to buy a product [12].

There have been many studies on purchase intention and peer conformity, but not much has been studied on the topic of purchasing in-game virtual goods because this is a relatively new issue in the study of consumer behaviors. Based on these considerations, this study aims to determine the effect of peer conformity on the intention to buy in-game virtual goods among young Free Fire game players. The scope of research is limited to certain online game consumers because each online game sells virtual goods with different functions and forms. This study has a hypothesis that the stronger peer conformity of game players contributes to the intention to buy in-game virtual goods. It is hoped that this research will enrich the literature in the field of consumer psychology, especially on the topic of virtual consumerism, and can become the basis for developing research related to the intention to buy in-game virtual goods in the Free Fire online game.

2 Method

This study used a quantitative survey design and was conducted on N = 126 Free Fire online game players. Participants were obtained using convenient sampling with reference to the following criteria: aged 10-22 years, have been active players in the Free Fire game for at least three months, and have purchased virtual goods at least once.

Data was collected using a psychological scale. Peer conformity of online game players is measured using the Peer Conformity Scale which was developed based on three aspects of peer conformity, namely: cohesiveness, agreement, and obedience [13]. This scale consists of 29 items presented in a five-point Likert response format where 1 = very inappropriate to 5 = very suitable. The results of the reliability test showed the Cronbach's Alpha coefficient = .889. Items on this scale are for example: "*I like similarities with friends,*" "*I follow the games friends like,*" and "*I pay attention to what friends enjoy.*"

Meanwhile, the intention to buy in-game virtual goods is measured using the Purchase Intention Scale which was developed based on aspects: behavior, object, situation, and time [14]. This scale consists of 23 items presented in a five-point Likert response format where 1 = very unlikely to 5 = very likely. The results of the reliability test showed the Cronbach's Alpha coefficient = .969. This scale begins with general questions such as "*How likely are you to do any of the following in the next month?*" Items of this scale are for example: "*Buying virtual items (eg skins, diamonds, crystals) online,*" "*Buying coins in the game Free Fire,*" and "*Buying game vouchers.*"

The first step is to ensure the consent of the participants whether they are willing to be respondents or not by filling out informed consent. The collected data were analyzed using Simple Linear Regression Analysis assisted by SPSS version 22 software.

3 Results and Discussion

3.1 Results

Respondents are Free Fire game players who have purchased virtual goods, totaling N = 126 people. Respondents are students in junior high school (52%) and senior high school is 24%. The majority of respondents have played the Free Fire game for more than a year, with details as shown in Table 1.

The results of the descriptive statistical analysis of peer conformity scores and intention to buy virtual goods show that the mean value of peer conformity is $M = 95.5$ ($SD = 7$), while the average value of purchase intention is $M = 80.5$ ($SD = 13$). Before testing the hypothesis, the researcher conducted a normality test with the Kolmogorov-Smirnov test and a linearity test. The result shows that the data meets the normality and linear assumptions.

Hypothesis testing was carried out using Simple Linear Regression Analysis. The results show that the effect of peer conformity is not proven to be statistically significant in influencing the intention to buy in-game virtual goods for Free Fire online game players with $R = 0.047$, $R^2 = .002$, $\beta = F = .212$, and $p > .05$. It can be concluded that

peer conformity does not affect the intention to buy in-game virtual goods of Free Fire online game players, meaning that the tendency of the intention to buy in-game virtual goods is influenced by other variables.

Table 1. Participant

Variable	Total	%
Gender		
Man	117	92.9
Woman	9	7.1
Age		
12	6	4.6
13	8	6.6
14	7	5.3
15	7	5.3
16	11	8.3
17	20	15.1
18	22	16.7
19	16	12.1
20	15	11.3
21	5	4
22	9	7.1
Education		
Elementary school	15	11.3
Junior High School	69	52
Senior High School	30	24
Bachelor	12	9.9
Frequency of purchasing Virtual Items		
1-2 times a month	95	75
3-4 times a month	27	21.4
5-6 times a month	10	8
Motive of purchasing Virtual Items		
Winning the competition	58	44
Playing together	61	46.2
Defend the character while playing	50	38
Increase the game account level	55	42
Prestige	47	36
Following the trend	52	39.4
Having the latest virtual goods	61	46.2
Completing the collection of virtual items	59	45

The researcher conducted an additional analysis to explore the possibility of other factors not examined in this study which are related to buying intentions among young online game Free Fire players. First, the researchers compared the level of purchase intention among young online game Free Fire players based on demographic factors such as gender, age, and level of education. This different test analysis was carried out using an independent sample t-test with a Sig.(2-tailed) value and the result was that there was no difference in the level of intention to buy in-game virtual goods based on gender and education level. However, the mean score of Free Fire online game players with high school and university education levels ($M = 52.4$, $SD = 4.6$) is higher than players who are at the elementary school level ($M = 50.8$, $SD = 4.8$) and Junior High School (SMP) with $M = 49.9$ and $SD = 3.8$. Second, the researcher analyzes the motives or goals for purchasing virtual goods in Free Fire online game players. The most common motives are: playing together (46.2%), owning the latest virtual goods (46.2%), and winning the competition (44%).

3.2 Discussion

This study failed to prove the hypothesis that peer conformity has an effect on the intention to buy in-game virtual goods among Free Fire online game players. Analysis of the effect of the independent variables on the dependent variable showed that there was no statistically significant relationship between peer conformity and purchase intention. This means that there are other factors or variables that affect the intention to buy.

The peer conformity variable has no effect on purchase intention, which can be caused by several factors. The first is demographic factors, including: age, economy, and education. The age factor becomes a determinant in predicting buying intentions where older people or adults tend to have higher intentions. The age factor is thought to be related to employment, income, or financial resources, as well as the economic capacity to make purchases. The subjects in this study were teenagers, most of whom were still students who tended to not have financial stability, were still dependent on their parents, and were not yet working [12].

The second is the economic factor. Based on the results of the analysis that has been carried out, it is known that most teenage Free Fire online game players in this study generally purchase In Game Virtual Goods only one to two times a month. In other words, teenage players tend not to buy virtual goods often. This can be related to the condition of those who do not have financial independence. Expenses used to purchase virtual items are in line with the income received by the player

Villa et al., [15] explained that game players also consider economic value so that it influences further purchase intentions. Furthermore, buying interest in games will increase when the economic value of virtual items is seen as more economical with reasonable prices and commensurate with the value of players' money. In this case, Free Fire online game players can consider their interest or intention to buy In-Game Virtual Goods, if they are deemed to have an appropriate economic value, especially considering that the majority of players in this study are teenagers.

The third factor is the competitive motive. There are three main motives that drive adolescent interest in buying in-game virtual goods which can be classified as competitive motives, namely: winning competitions, winning games when playing together, and collecting virtual goods. These three motives provide input that the competition factor needs to be explored because it may play a more significant role than the conformity motive. Mowen [16] revealed that competitiveness is significantly and positively related to consumer behavior that occurs in three contexts, namely: to beat others directly in a contest (for example, in a sports match), to beat others indirectly through representative experience. (e.g., observing sports as a fan), and outperforming others through conspicuous consumption of material goods (e.g., buying innovative electronic products). Purchasing in-game virtual goods can fall into the third category.

This research has several limitations. First, this research does not consider the factor of membership in squads or groups of fellow players. Even though the social context greatly influences purchase intentions. It could be that conformity occurs within a squad or community group, not based on comparisons with other Free Fire online players in general. This condition is due to the fact that making purchasing decisions in adolescents can be strengthened by the influence of peers who are the reference group. In the context of playing online games, the reference group for teenagers is a squad (team). The next research can examine the effect of membership in squads and social media players, considering that social groups have a role in product socialization and communication which can influence product attitudes and purchase intentions [17]-[19].

4 Conclusion

This study investigates the effect of peer conformity on the intention to buy in-game virtual goods among Free Fire online game players as a sample. It was found that there was no statistically significant effect of the peer conformity variable on purchase intention. The results of the additional analysis show that there are other factors that are suspected of contributing to the intention to buy in this study, namely: age factors, economic factors, competitive motives, and dynamics in groups of game players (membership in squads and players' social media). Considering the limitations of this study, it is suggested that subsequent studies examine the influence of these factors.

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