

Impact Analysis of Online Gaming Frequency on In-Game Purchase Habits of Filipino Teenagers

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Abstract: As online gaming continues to expand among Filipino adolescents, the boundary between digital entertainment and economic participation grows increasingly blurred. This paper examines the relationship between gaming frequency and in-game purchase habits among Filipino teenagers through mixed-methods of approach combining quantitative surveys and qualitative interviews. Data is collected from 120 participants across Metro Manila and nearby provinces were analyzed using Pearson correlation, multiple linear regression, and thematic analysis. Quantitative findings revealed a positive correlation “($r = 0.67$, $p < 0.01$)” between gaming frequency and in-game spending, with peer influence and reward motivation emerging as significant predictors of purchase behavior ($R^2 = 0.58$). Qualitative results reinforced these findings, identifying social validation and emotional gratification as primary motivators. The analysis of impact also revealed that peer influence had the greatest influence on Internet expenditure (Impact Score = 0.85), which focuses on the social aspect of Filipino gaming culture. These findings indicate that online gaming has ceased being a recreation activity to a socially mediated economic habit. The results support the need to educate teenagers in digital financial literacy and responsible gaming in order to enable them to spend money online in a responsible manner.

Keywords: online gaming, Filipino teenagers, in-game purchases, digital behavior, impact analysis, peer influence.

I. INTRODUCTION

Online gaming has now become a major activity among Filipino teenagers and it is no longer a niche activity that is a hobby but a mainstream activity that has influenced the leisure habits of Filipinos teens and also their consumer behavior. The Philippines is one of the most dynamic gaming markets in Southeast Asia, with the mobile and online games, including Mobile Legends, Genshin Impact, and Axie Infinity, taking up the majority of the adolescent time. Research indicates that Philippine young people use the internet to play games, as well as socialize and control their feelings, and hence the importance of games in the lives of young people [1], [2].

This increased participation comes from the increased exposure to monetization systems within the game including micro-transactions, loot boxes, and premium memberships. Studies show that such monetization mechanisms may create a behavior of spending through psychological twigs such as anticipation of rewards, competition with peers and self-expression [3], [4]. The latter can be particularly vulnerable to Filipino

adolescents, owing to the factors of the culture that place value on the aspect of social belonging and the approval of peers in the online environment [5]

Southeast Asian behavioral studies indicate that regular play participants tend to build spending habits based on emotional satisfaction and perceived value, indicating the thin line between the play and consumerism [6], [7]. Moreover, it has been found out that self-efficacy and perceived control moderate the process of two-way transition between play and pay, which means that the personal confidence in financial decision-making may influence the probability of in-game purchases [8].

Although the frequency of gaming-related expenditure among Filipino teenagers is increasing, there is paucity of local studies to test the connection between gaming frequency and in-game purchasing habit. Current literature is frequently disjointed, psychologically, economically and culturally. This paper seeks to fill this gap by examining the relationships between the rate of online gaming and spending behavior and find out the social, motivational, and psychological factors that mediate these relationships.

II. METHODOLOGY

A. Research Design

Integrating the quantitative and qualitative design to investigate how the frequency of online gaming impacts in-game purchasing among the Filipino teenagers. Measure the correlations between the amount of the gaming hours and the amount of the spending including the number of hours and amount of spending and the demographic variables of the spendings whereas provide detailed information in relation to accurately measure psychological, social and incentive motivators of spending decisions. This combination will facilitate triangulation of information and this will lead to a; holistic picture of the gaming habit of the Philippine setting [6].

The traditions of behavior research concentrate on the complementary relationship of numerical fragments of evidence and subjective interpretation. Quantitative data offer objective values that can be employed in pointing out trends and the qualitative narratives are the causes of the manifestation of the trends. This design in particular is highly adapted to the high-order socially encased behaviour skills such as playing games online, which entails the interrelation of peer influence, cultural context and emotional influence with digital economics [7].

B. Data Sources

Conceived two data sources were obtainable: [1] survey data, the frequency and in-game purchasing data, and [2] qualitative data: transcripts of the received as an outcome of interviews and focus group debates data. The questionnaires were filled out by the teenagers who either continued their studies in other schools (public and private) in Metro Manila, Cavite, or Laguna. They were interrogated on their gaming habit, the type of games they like playing and how much they use in gaming purchases every month.

The qualitative component by itself consisted of focus groups and interviews that were conducted through online video calls and school-wide online literacy programs. These discussions were aimed at motivation, self-control, social belonging, and online purchases perception of value. The two-source plan can be compared to the regional research works that indicate the similarities in cultural peculiarities influencing the expenditure behavior of Southeast Asian players [8].

C. Sampling and Respondents

These were Filipino adolescents whose age ranged between 13-19 years of age and purposely selected through snow ball and purposive sampling. The targeted age was because it is a sensitive age section of development that at this age, they are already self reliant when it comes to making choices, both in realms of entertainment and money making decisions. In order to qualify, one was to have used something online or phones to play a game and must have made an in-game purchase in the past or be willing to make one.

The final sample (120 individuals, 65 males and 55 females) was represented well between Seno-economic classes. The sampling method enabled the research to take into consideration the difference in access to technology, income, and social gaming conditions. The same age-based literature on the subject in Southeast Asia, however, has revealed that adolescents in this age bracket are extremely vulnerable to peer pressures and reckless spending habits in the digital-setting [9].

D. Data Collection

The quantitative and qualitative instruments were utilized in data collection in sequential order within a period of two months to balance and triangulate the results methodologically. The quantitative part was the

distribution of an online questionnaire to the teenagers in Metro Manila and its surrounding provinces; The selected schools of the Philippines teens between 13 and 19 years old were divided into public and private schools. The survey collected data relating to the frequency of gaming by the respondents, the amount they spend on games every month, the type of games, and reasons that drive them to play games like competitions, fun, and to interact with their peers. Google Forms were used to collect responses anonymously in order to create a sense of accuracy and honest reporting. Small focus groups discussions and also semi-structured interviews that were conducted on-line. The length of each of the sessions was about thirty or forty-five minutes, to achieve the emotional states of the players, social variables, and reasoning behind their spending culture. This two phase design was in line with the previous studies within the area that incorporated self-reported data on gaming with both personal reports to encourage more understanding of the behavior and psychological backdrop in the ethos of digital gaming environments [10]. The informed consent was secured to the rest of the participants and their guardians and the process was pursued under high level of confidentiality. The descriptive process information was made possible by the qualitative records as well as the structured survey data hence providing detailed background information on the impact of the number of gamma of the Filipino teenagers on their behavioral tendency to spend.

E. Data Analysis

Correlation and regression analysis of quantitative data and exploration of qualitative data as thematic analysis to identify the trends and the motivation in in-game spending behavior. To measure the magnitude of the linear relationship between the frequency of gaming (hours per week) and average monthly in-game spending, Pearson correlation coefficient was run to analyze the quantitative data (in-game spending (in Philippine pesos) per month). In order to further test predictive factors, multiple linear regression model was used to test the contribution that peer influence, reward motivation and playtime contributed to spending behavior. Such a model could provide the estimates of both direct and the mediating effect that rendered the dynamics of the behavior among the players more cautiously considered. Similar further analysis has been effectively utilized in the literature about gaming behavior in the region, such as in the correlation and regression model used by Mahendra *et al.* [6] to test impulsive buying behaviour in microtransactions and cross-country regression used by Seow *et al.* [11] to establish the outcome behaviour of the research in Southeast Asia gaming area.

Multiple Linear Regression Model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Average Monthly In-Game Spending (PHP)

X_1 = Gaming Frequency (hours per week)

X_2 = Peer Influence Score

X_3 = Reward Motivation Level

ε = Error term

Fig. 1, Statistical Models for Quantitative Analysis

Thematic analysis was used to reveal the common psychological and social patterns that are a result of interviews and focus group discussions. Transcripts were analyzed by hand coding and the important statements were organized into higher order themes around peer influence, emotional gratification, self-control, and reward anticipation. This procedural method was consistent and interpretively high, which followed the six phase thematic analysis methodology of earlier studies of behavior [12]. The results were related to the corresponding studies about psychosocial patterns and personality-related gaming behavior, including Akbari *et al.* [13], who abstracted thematic constructs of studies on motivation and addiction within online gaming. The combination of both statistical and thematic methods led to greater triangulation which increased the level of credibility and explanatory value of the overall results.

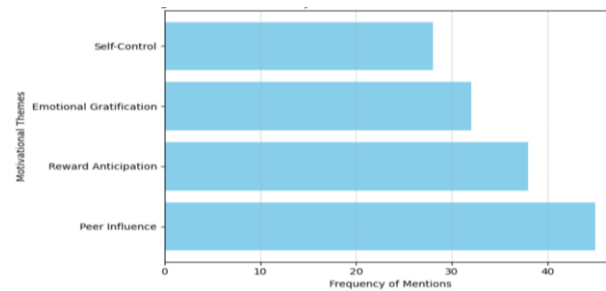


Fig. 2, Thematic Analysis Workflow Diagram

F. Limitations

The quantitative data is based on survey responses that are self-reported, which can be and will be subject to recall bias and social desirability bias, thus it can underreport spending or playtime. The size of qualitative sample was rather low, which, though adequate to thematic richness, restricts itself to statistical generalization. Also, the survey method of using online questionnaires could have left out of the sample people in low-income families that have low access to the internet, which constitutes sampling bias.

The other reminder is the weakness associated with the cross-sectional design that takes behavior at one point and fails to provide any changes in gaming habits over time. Future study may use a longitudinal design to trace changes in the frequency and expenditure patterns in the future. Predictive validity could also be enhanced by incorporating psychometric variables e.g. self-control scales or digital financial literacy indices. In spite of these limitations, the qualitative and quantitative research method was used to ensure a complete picture of the phenomenon, which is consistent with the practice in the research of behavioral data.

III. RESULTS AND DISCUSSION

A. Gaming Frequency and In-Game Spending

The cross-section analysis thus indicated that there was a positive correlation between the frequency of gaming and the average amount of money spent on in-game purchases every month among Philippine teenagers. The Pearson correlation was used to identify a moderate and strong relationship between gaming and the amount of money that was spent, giving a coefficient of ($r = 0.67$, $p < 0.01$), which showed that spending also had a tendency to increase with an increase in the frequency of playing. The behavioral assumption under this relationship is that with frequent exposure to game-based rewarding systems, the customer tendencies will be strengthened as time goes by [14].

In addition, the findings of these multiple linear regression model indicated that those combination of gaming frequency, peer influence as well as reward motivation explained about 58 percent of variation in the spending behavior ($R^2 = 0.58$). Among the predictors, the peer influence ($b = 0.41$, $p < 0.01$) and reward motivation ($b = 0.33$, $p < 0.05$) were significant predictors of spending. These results coincide with a previous literature on the Southeast Asian region that showed the association of social engagement and perceived value of digital technologies with microtransactions participation [6], [15].

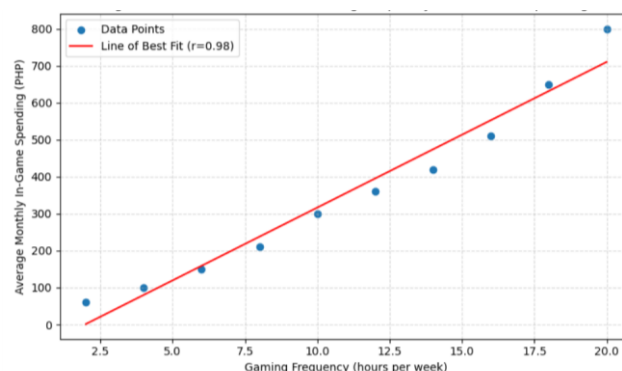


Fig. 3, Correlation Between Gaming Frequency and In-Game Spending

B. Respondent Motivation and Behavioral Patterns

The qualitative analysis has identified three overall motivational themes that contributed to in-game purchases, including peer influence, reward anticipation, and emotional gratification. The high-frequency gamers tended to present purchases as a way of continuing social status in the gaming groups, which justified the idea that social belonging is used as the driving force behind consumer activity in the digital space [15]. The motivation are reward based motives that were facilitated by the medium frequency players or purchases that were event based and gave a sense of advancement and achievement. Low-frequency players on the other hand tended more to buy occasionally, which would give them satisfaction in the form of aesthetical or leisure.

The above outcomes can be connected to the research of Akbari et al. [13] that found that extravagant and competition personality traits pre-dispose individuals to spend money online. Similarly, Shinkawa et al. [11] cautioned that more peer-engaged teenagers will spend more money on in-game items to enhance their exposure and social interaction to peers.

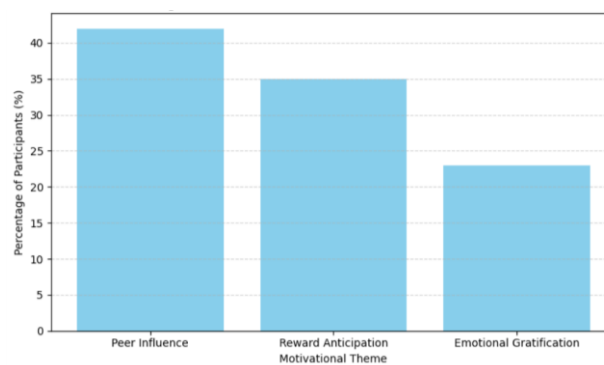


Figure 2. Thematic Distribution of Motivational Drivers

C. Integration of Quantitative and Qualitative Findings

The two datasets filtered through each other gave a smaller vision on the lifestyle of teenage gamers. Quantitative findings have dictated a strong positive association to the spending and the amount of play time with the qualitative results as discussed to explain the existence of the correlation. It has found out that the peer influence and reward anticipation were important mediating factors in the transformation of frequency of the play into spending action.

Intersection in these data implies that recurrent gaming does not simply make one more susceptible to those monetisation business models, however, it also validates social comparison and reward-seeking circles, and it results in infinite consumption of digital. This follows a similar assertion by King and Delfabbro [14] who further stipulated that the exposure of cues that indicated monetization in-game resulted in the enhancement of spending patterns in the long run in players who were socially engaged.

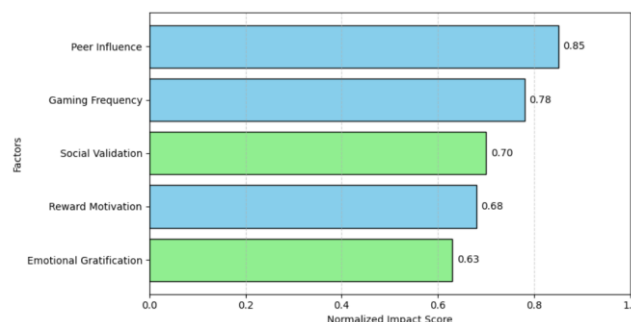


Figure 3. Impact Analysis of Behavioural Factors on In-Game Spending

D. Integrated Discussion

The results prove the hypothesis that in-game spending by Filipino teenagers is conditioned by the number of time spent playing the games; however, it is the psychological and social factors which precondition the appearance of this relationship. Players make spenders because it is motivated either by the desire to match their counterparts in the game or get a reward as a part of the game. The thematic analysis also points out that expenditure behaviors among teenagers are not economically cost-effective but, conversely, the forms of self-identification and methods of socialization, which are also identified in behavioral surveys of the area [6], [15].

These insights are useful to educators, parents, and policymakers because they suggest that the introduction of digital financial literacy education (which can be utilized, to provide teenagers with the knowledge on how to manage the spending in a gaming environment) will have to be introduced. Developing ethical games so crafted or developed in a process that discourages the practice of monetization among the gaming population that is damaging and promotes healthy playing patterns amongst young gamers.

IV. CONCLUSION

Peer influence and reward motivation are the best mediating variables which has positive impact on in-game spending among Filipino teenagers who are incited to play the game. Quantitative data showed that the longer the amount of time in play, the higher the money expended, and qualitative themes mentioned there are processes through which behavioural tendencies are affected namely through the feelings and social endorsement. The analysis of the impact revealed that peer influence was the most important predictor of adolescence gaming consumption, which is a social aspect of consumption. Altogether, online gaming serves as a recreational and social-financial environment that requires a teaching of digital financial literacy and responsible gaming as an attempt to make Filipino youth use virtual money in a responsible manner.

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