VIDEO GAME VIRTUAL GOODS: PERCEIVED OF PLAYFULNESS EFFECTING TO PURCHASE INTENTION

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ABSTRACT

The core purpose of this research was to study the impacts of factors influencing purchase intention of virtual goods by perceived level of playfulness of virtual goods in video games that use for competition in e-sport event by using structural equation modeling)SEM .(The sample population was chosen from e-sports gamer who playing e-sport video game in Thailand .The questionnaires were distributed to 387 respondents .The statistical treatment of this study is based upon the statistical techniques such as frequency and percentage, means, standard deviation and SEM method .The results showed that the conceptual aligns with the empirical data.

The findings of this research indicated that esport level of perceived of playfulness has positive influence with virtual goods purchase Intention moderated by attitude of player at significance level 0.001

Keywords: Playfulness, Video Game, Virtual Goods, Marketing E-sport

INTRODUCTION

Video Game is a new playing culture for present society (Karhuahti, 2017; Ngamphit Satsanguan, 2015). Growing up of video game communities and large of players becoming competition activities called E-sport (Lert-asavapatra & Wangmahaporn, 2020). A lot of E-sport games or video games are now using virtual goods to gain revenue from players (Valve, 2019; Lert-asavapatra & Wangmahaporn, 2020; Ho & Wu, 2012)

Real-money trade of virtual goods first reveals in 1999. (Hamari & Lehdonvirta, 2010) Back then usually trading for MMO games and evolve to become serious trade by present just like another goods.

Virtual Goods Generate real income to publisher (Wu & Ho, 2012). Most Studies related to video game or online game but not classify which type of Virtual Goods to be positive impact to consumers if they intense to buy. There are many types of Virtual Goods category factors in video games such as Character competency, Functional Quality, Price Utility, Satisfaction makes, Identification with Character, Playfulness, Aesthetics, etc. (Ho & Wu, 2012)

There will be next generation of revenue that able to gain from video game industry and Virtual Goods could be one of them by many of previous studies (Ho & Wu,2012; Lert-asavapatra & Wangmahaporn, 2020; Pangaribuan et. al., 2021; Hamari & Leoncitas, 2010)

So this article will show how virtual goods in video game specially "Playfulness Virtual Goods" effects to another marketing variable, attitude and consumer purchase intention to become new model or inferential strategy of marketing in gaming business field.

OBJECTIVE

1. To study effects of Playfulness and Attitude that influencing to Purchase Intention in Virtual Goods
2. To Study relationship of Playfulness Attitude and Purchase Intention variables in form of structural equation modeling

METHODOLOGY

The research population consisted of video game consumer of the public who are playing or participate in e-sports game or video games that added in-app purchase virtual goods mixed with playfulness. The population are from Thailand. The researcher utilized a convenience sample from each region with provincial representatives. A questionnaire was employed to collect data for the investigation. Total data was obtained from 385 individuals, plus an additional 15 individuals to prevent incomplete data or data loss, for a total of 400 individuals. Hair et al. advised a reasonable sample size ranging from 200 to 400 samples following Nattaya Pattapisetwong Primasari (2022), who explored the estimation of sample sizes utilized in structural equation model analysis.

This study is quantitative. The study was conducted by collecting secondary data from literature reviews, concepts, theories from the instrument using questionnaires as a data collection instrument, and then analyzing the data statistically statistical software. The use of structural equation modeling methods for Confirmatory Factor Analysis (CFA) of all variables in the conceptual framework of this research and perform path analysis to test hypotheses and explain both direct and indirect influences between variables.

The Cronbach's Alpha test of reliability revealed that the questionnaire employed as the instrument in this study yielded test results for playfulness, attitude, and purchase intention that exceeded the 0.70 standards. This research instrument, a questionnaire, was capable of measuring the data confidently.

Some of latent variables that had factor loading less than 0.6 were removed from the model for factor analysis. This study remains 13 items to use in statistical analysis. The researcher performed a reliability test by calculating the composite reliability for all variables, the result presented in the figure 2

Figure 2
Statistical values used in the reliability test of the instrument.

Latent Variables	Item	Composite Reliability	AVE
Playfulness	5	0.878	0.591
Attitude	4	0.901	0.696
Purchase Intention	4	0.872	0.632

All composite reliability result in figure 2 ranged between 0.36 and 0.872 and 0.901, which is an acceptable for internal consistency (Cronbach, 1951). Convergent Validity was also investigated, and it was determined by AVE (Average Variance Extracted) value ranged from 0.591 to 0.696, that all values are over than 0.50, each equation could measure variables with an adequate degree of precision (Fornell & Larcker, 1981).

For confirmatory factor analysis, the researcher performed the confirmatory factor analysis of the structural equation model and found that the model was consistent with the empirical data at a reasonable level, with a CMIN/DF of 2.047, GFI of 0.967, NFI. of 0.953, RFI of 0.980, IFI of 0.974, TLI of 0.965, CFI of 0.982, and RMSEA of 0.061. This satisfies the harmonious standard of the structural equation model (Hair et. al, 1008; Bentler, 1999; Cheng, Shih-I, 2011; Loo & Thorpe, 2000)

All hypotheses were accepted at the 0.01 level of statistical significance, p-value less that 0.001 as showed as the figure 3

Figure 3
Hypotheses testing results.

Hypothesis	P-value	Result
Playfulness -> Attitude	0.000***	Accepted
Playfulness -> Purchase Intention	0.000***	Accepted
Attitude -> Purchase Intention	0.000***	Accepted

By optimizing the structural equation model, the researcher obtained a model of Playfulness variable on attitude and purchased intention of in -app purchase virtual goods in video games or e-sport games, as shown in Figure 4 .

Figure 4
The Structural Model
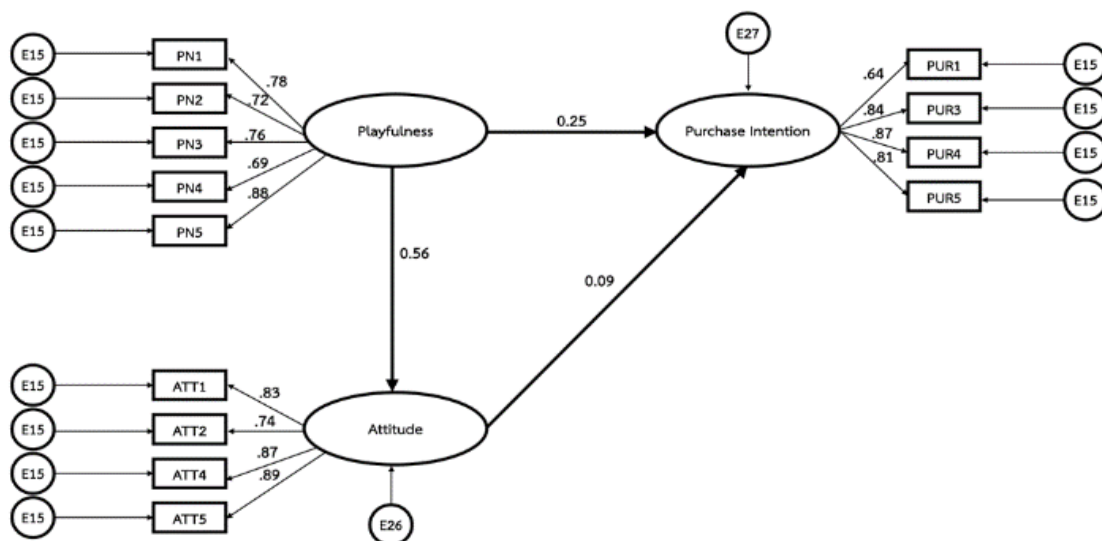
RESULTS

Path Analysis	Direct Effect	Indirect Effect	Total Effect
Playfulness -> Attitude	0.560	-	0.560
Playfulness -> Purchase Intention	0.250	0.054	0.304
Attitude -> Purchase Intention	0.090	-	0.090

The findings of the confirmatory factor analysis demonstrated that the structural equation model was consistent with the empirical data to a high degree, as well as the results of the structural equation modeling method's hypothesis testing and path analysis showed

CONCLUSION AND FUTURE WORK

The findings of the confirmatory factor analysis demonstrated that the structural equation model was consistent with the empirical data to a high degree, as well as the results of the structural equation modeling method's hypothesis testing.

All Hypotheses are accepted, showing that results are consistent with the findings of previous studies (Lert-asavapatra & Wangmahaporn, 2020; Ho & Wu, 2012; Sean Lee et al., 2019; Maksan et al., 2019; Meng and Choi, 2016; Pöyry et al., 2021; Um, 2021; Pangaribuan et. al., 2021; Hamari & Lehdonvirta, 2010).

The hypothesis test results show that the higher the perceived playfulness level of virtual goods sold in video games, the more positive consumers' or gamers' attitude and purchase intent. This is true in the context of systematic video game products. Multi-players and game products chosen to be used as competitive games in e-sports, in line with the work of Ho and Wu in 2012.

In the context of actual gaming activities, we can observe that. Even professional athletes use augmented reality tools that, in part through playfulness, exploit the psychological dynamics of competition between players by making fun of one another. However, it might be used in general competitions among players.

As a result, the more game business operators or publishers that provide game services can focus on designing virtual products with playfulness, the higher the level of awareness of playfulness that is evident in that product. Profits should be generated while virtual goods sales should be increased.

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