

# Turnitin The Development Of Social Influence

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## The Development of Social Influence and Aesthetic on Purchase Intention

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**Abstract:** Due to the development of internet nowadays, people utilize it with games and it results in the development of gaming industries that leads to strong existence of virtual economy. However, the development of the gaming industry in Indonesia was indeed a little late compared to other countries. This study generates a new perspective that describes purchase intention on virtual goods in Massively Multiplayer Online Social Games (MMOSG), Audition, in Indonesia. This research is done through a survey by using questionnaire which acquired 200 Audition players as respondents. The data processing used is structural equation modeling. Results of the study show factors that significantly influence purchase intention on virtual goods are social influence and aesthetic in which purchase intention affects actual purchase behavior, while price utility and satisfaction do not influence purchase intention.

**Keywords:** virtual goods, online games, purchase intention, structural equation modeling, actual purchase.

**Abstrak:** Dengan adanya perkembangan internet saat ini, masyarakat memanfaatkannya dengan game sehingga mengakibatkan berkembangnya industri game yang mengarah pada eksistensi ekonomi virtual yang kuat. Namun perkembangan industri game di Indonesia sedikit terlambat dibanding negara lain. Penelitian ini menghasilkan perspektif baru yang menggambarkan niat membeli barang virtual dalam Massively Multiplayer Online Social Games (MMOSG) Audition di Indonesia. Penelitian ini dilakukan melalui survei dengan menggunakan kuisioner yang diperoleh 200 peserta audisi sebagai responden. Data diolah dengan structural equation modelling. Hasil penelitian menunjukkan bahwa faktor-faktor yang berpengaruh signifikan terhadap minat beli pada barang virtual adalah pengaruh sosial dan estetika dimana niat membeli mempengaruhi perilaku pembelian aktual, sedangkan utilitas harga dan kepuasan tidak mempengaruhi niat membeli.

**Kata Kunci:** barang virtual, game online, niat membeli, SEM, pembelian aktual.

### INTRODUCTION

Internet was turned into a piece of human life. Currently, internet frequently utilized as entertainment, social communication until business transactions. According to the report from Indonesian Internet Service Provider Association (APJII) as stated in *Kompas.com* in 2018, out of 262 million people in Indonesia, more than 50% which is around 143 million

people, have been connected to the internet in 2017. As times goes by, due to the development of the internet, people utilize it with video games which results to online games (Widiartanto, 2018).

According to (Ferdig, 2008), online games refer to a game that played through several form of computer network, most frequently by using the internet. Online games revolve from simple text-based games to games that integrate graphics through virtual worlds played by many and various players simultaneously from all around the world. Furthermore, (Ho and Wu, 2012) stated in their research, online games are generally played by users located in various places. The users use mutual internet connections to exchange information and sharing virtual worlds. In other words, online games are games that use internet connections to process user interactions through virtual worlds.

Based on *Forbes*, after NPD Group created a profitable business which is entirely supported by selling virtual items, the gaming market started showing profitable income results. Gaming market in the US sells about \$18.8 billion a year, which half of that sales are coming from PCs or other devices. As times goes by, gaming companies in China and Korea begin to built gaming empire by letting people play for free and selling items from virtual weapons until fashionable outfit that can support players needs and wants (Irwin, 2008).

(Swanner, 2018) stated, in recent years, a lot of game developers have adopted a 'free-to-play' model, allowing users to download their games and play them for free. Online games that in the past used to only serve solely entertainment services, in this modern era began to develop with the feature which allows them to sell virtual items in the game or transfer items to other players, which aims to increase user profits and interests. Agreeing to (Li, 2012) statement, 'free-to-play' games gave rise to the new economy in the internet era. Especially when users use their real money to obtain virtual items. This action often referred to in-game purchase through real payment transaction.

(Li, 2012) explained a new economy has emerged in the modern era that attracts a lot of users to use cash to obtain virtual goods. Virtual goods refer to products which are perceived to be truly useful and logically acceptable even though their presence is only virtual. Virtual goods have various functions in the game such as, improve capabilities in the game, provide player needs and wants, or open locked features. These items can also be a core component of the games, including special items and even seasonal items. As time goes by, virtual goods began to develop into beauty items or costumes that can be changed according to the user preferences. The existence of in-game purchases in online games has become popular since game publishers have recognized a golden opportunity in the online gaming industry.

(Matsumoto and Okabe, 2017) stated that Massively Multiplayer Online Games (MMOG) is the one of typical of popular online games. These games are played over the Internet. Players use internet network to interact with other players in the virtual world. Player with other users could create a team to cooperate and compete with other team.

According to (Swastika and Yuwono, 2017), MMOG can be interpreted as a game that has a high graphic in the form of 2D or 3D that is played online. Avatar, a digitally formed character created and used by players, can interact with game software and other players in the game. MMOG is divided into various types. Game players in MMOG are categorized into four which are Achievers, Explorers, Socializers, and Killers. **Achievers** are characters who always try to conquer any challenge to get the best achievement. They

collect status by defeating challenges in the game. For example is Role Playing (MMORPG) which is the most popular game type. It is made based on a fantasy story and is played to fulfill missions or quests, such as Lineage II or World of Warcraft which is famous throughout the world.

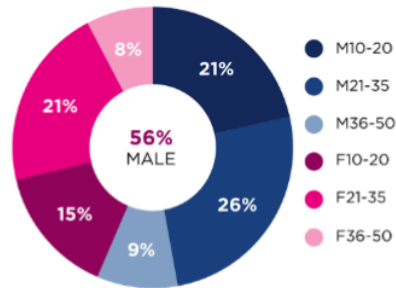
**Explorers** are characters who are eager to explore new areas, try new things, and discover new combinations. The example is Real-time Strategy Games (MMORTS). This type of game emphasizes the greatness of the player's strategy. This game has a characteristic in which players must manage a world that they create by themselves and set strategies at any time, such as Age of Empires and Star Wars. **Socializers** are characters who are highly interested in always building relationships with other players by telling stories in the game world. The example is Social Games (MMOSG). MMOSG is a type of game that focuses on the value of socialization. This kind of game usually formed by online communities. In this type of game, the players will more focus on creating their virtual avatars than competing or doing wars. Most famous MMOSG games are Audition, Touch, and Furcadia.

**Killers** are characters who are always diligent in finding creative ways to disrupt other players' playing experience. For example is First Person Shooter (MMOFPS). This type of game focuses on the aspects of war in the game with the storyline and mission interest, such as Call of Duty and Counter-Strike.

Type of the game that researcher will put the focus on in this research is Audition, which is part of MMOSG (Massively Multiplayer Online Social Game). The game Audition is taken as the object because this game is one of the most popular MMOSG games in Indonesia. Audition is a *battle-dance* game that carries the theme of *fashion, love, and friendship*. Each player is allowed to create or join the existing room to interact with others. Because *fashion* is one of the cores in this game, Audition has shopping features which let players customize the look of their character or avatar. In making avatars in the game, players invest their money and energy to get their *friendship* or even *love*. This process is embedded in the economic value from a game developer's perspective, thus the needs of players are the target for gaming industry market. In this research, game players considered as consumers who choose and utilize virtual goods for the sake to fulfill their needs and satisfy their desires in online games.

Moreover, according to (Hudrayasah et al., 2019), even Indonesia is placed in the 17<sup>th</sup> largest market games in the world, Indonesian games industry still left behind. However, the growth of the gaming industry began to show the result after internet penetration began to increase.

Figure 1. Demographic Number of Game Players in Indonesia



Source: Newzoo, 2017

From the results of research conducted by Newzoo in 2017 as shown in Figure 1, the demographic number of game players in Indonesia was dominated by men aged 21-35 years old. As for women, the largest portion was also held by people aged 21-35. In conclusion, the age of 21-35 years old is the mainland for game companies (Newzoo: Infographic The Indonesian Gamer in 2017, 2017)

Factors that motivate the researcher to conduct this research is because with the population of Indonesia that is more than 260 million people, Indonesia has become a country that has a large market potential for any industries in asia, even the world. However, Indonesia is still incapable of maximizing this opportunity in online game industries. It can be seen from the same research by Newzoo that shows the comparison in Rest APAC region, Indonesia's gaming revenue on 2018 only reached USD 1084 million with 267 million population, lower than Taiwan that only have 267 million population that can reached USD 1231 million. (Newzoo: Top 100 Countries by Game Revenues, 2018)

Figure 2. Rankings Countries by Game Revenues

RANK	COUNTRY	REGION	POPULATION	INTERNET POPULATION	TOTAL REVENUES IN US DOLLARS
1	China	Asia	1,415M	850M	\$34,400M
2	United States of America	North America	327M	265M	\$31,535M
3	Japan	Asia	127M	121M	\$17,715M
4	Republic of Korea	Asia	51M	48M	\$5,764M
5	Germany	Western Europe	82M	76M	\$4,989M
6	United Kingdom	Western Europe	67M	64M	\$4,731M
7	France	Western Europe	65M	58M	\$3,366M
8	Canada	North America	37M	34M	\$2,399M
9	Spain	Western Europe	46M	39M	\$2,202M
10	Italy	Western Europe	59M	40M	\$2,168M
11	Russian Federation	Eastern Europe	144M	113M	\$1,657M
12	Mexico	Latin America	131M	86M	\$1,577M
13	Brazil	Latin America	211M	142M	\$1,452M
14	Australia	Oceania	25M	23M	\$1,293M
15	Taiwan	Rest APAC	24M	20M	\$1,231M
16	India	Rest APAC	1,354M	481M	\$1,105M
17	Indonesia	Rest APAC	267M	82M	\$1,084M

Source: Newzoo, 2018

Furthermore, researches that have been devoted to this topic are still limited. Most studies about online games generally only study the characteristics of online game users, motivations for playing online games, desire to play online games, and purchase intention of role-playing and war strategy game.

This study is an empirical investigation of factors that affect purchase intention on virtual goods in socializer games, Audition. The increasing number of potential users leads many companies to involve themselves in this industry which creates a highly competitive business. It forces a company to be able to make the players loyal, have motivation to keep on playing, and intention to buy virtual items presented by the game provider in order to survive.

## THEORITICAL REVIEW

**Social Influence.** (Guo and Barnes, 2007) explained that when a player perceives participation in a virtual game community as an enjoyable experience, they will have the purchase intention on virtual items to improve their character competencies. The social influence is still a strong predictor of players' behavioral intention to purchase virtual items, especially those who are new to the virtual gaming community. (Jin and Sun, 2015) defined social influence on the virtual world as 'the inner feelings of the interactions with other peoples in the platform through virtual objects'. The 'interactions' are mainly about a function that can be used to interact with people through virtual objects in a virtual world. In this way, social influence refers to the feelings while using the functions of items provided by the platform.

In previous studies, it is found that users enjoyed the experience more when they felt a stronger social influence while entering a virtual world. When users experience social presence through personal interactions with fellow players, they tend to be deeply absorbed and engaged in the interaction which makes the player feels role-playing undertaken in the virtual worlds more enjoyable (Jin and Sun, 2015).

Prior researches by (Ho and Wu, 2012), (Lu et al., 2016), (Hung et al., 2011), and (Guo and Barnes, 2007) show that social influence positively affects purchase intention. It is indicated, when players have the ability to lead the virtual world, the players will feel a strong sense of social presence. This study hypothesizes that social influence within the game positively affects the purchase intention of virtual goods in online games.

***H1: Social Influence affect positively on Purchase Intention.***

**Price Utility.** The price utility of a digital item is obtained from how efficient consumers use the money. According to transaction utility theory, the more favorable the price of a product is to consumers, the greater price advantage that they will feel. It is because consumers assume that the more efficient they use their money for a valuable transaction, the greater the price utility to them which leads to higher purchase intention (Kim et al., 2011). Further, (Ho and Wu, 2012) stated that price utility refers to how reasonable the price offered and the value of virtual goods are to players. It is also related to the function and quality of the virtual goods itself. Consumers tend to choose the product when the utility that will be obtained by consumer suits with the price that they have to pay (Stefany, 2014). Prior researches by (Ho and Wu, 2012) and (Wang, 2010) found that price utility positively affects purchase intention. This study hypothesizes that price utility within the games positively affects the purchase intention of virtual goods in online games.

***H2: Price utility affect positively on Purchase Intention.***

**Satisfaction.** Satisfaction is defined as the response of consumers regarding their fulfillment of needs. It can be categorized as an assessment of features offered by product or service which provide consumers with a level of pleasure related to meeting consumer consumption needs (Bastian, 2015). Meanwhile, (Chen, 2008) stated, satisfaction is an overall response to a comparison of feelings between expectation and perceived feelings after consumption. According to (Ho and Wu, 2012), satisfaction of costumers towards products affects purchase intention. Otherwise, customer dissatisfaction will decrease the purchase intention.

Satisfied players will use more virtual items in games and have more expectations about the virtual community. Furthermore, a higher degree of satisfaction will more likely make the players feel that the item they have obtained is worth their money. Thus, the players will more likely to purchase the virtual items to fulfill their expectations that emerges from satisfaction (Jin and Sun, 2015).

Prior researches by (Ho and Wu, 2012), (Bastian, 2015), (Bai et al., 2008), and (Chen, 2008) found that satisfaction positively affects purchase intention. Thus, this study hypothesizes that satisfaction within the games positively affects purchase intention of virtual goods in online games.

***H3: Satisfaction affect positively on Purchase Intention.***

**Aesthetics.** Aesthetics refer to subjective characteristics based on aesthetic values related to the reflection of individual preferences (Shaharudin et al., 2013). This statement also supported by (Shaadiqawati and Yuliati, 2014) that stated aesthetic refers to visually attractive features of a product. Aesthetics are a part of product quality dimension. Product quality dimension that refers to aesthetic is a product characteristic that has the ability to meet individual needs and preferences. Furthermore, a quality dimension is a combination of characteristics and traits which will assess how farther it will fulfill customer needs. (Ho and Wu, 2012) also stated in their research that aesthetics are also a part of emotional theory on consumption values for virtual items in online games.

(Shaharudin et al., 2013) and (Ho and Wu, 2012) found that aesthetics positively affects purchase intention of virtual goods. Thus, this study hypothesizes that aesthetics within the games positively affects on intention to purchase virtual goods in online games.

**H4: Aesthetics affects positively on Purchase Intention.**

**Purchase Intention.** Purchase intention refers to when consumers have a thought that they will buy products or services. Consumers who have intentions to buy specific products will exhibit higher actual buying rates compared to those who do not have intentions to buy at all (Wee et al., 2014). (Permana and Haryanto, 2013) also stated that the intention will be formed when an individual makes a plan to purchase in the future. There are three types of intention constructs which are intention as hope, intention as plan, and intention as desire.

Furthermore, (Guo and Barnes, 2017) stated in their research that purchase intention on virtual worlds refers to the estimation of when consumers will participate in the transaction of virtual goods within games. A lot of prior researches have demonstrated that purchase intention is a significant direct mediator to actual purchase behavior and other factors from actual purchase behavior are fully mediated by purchase intention. In a virtual world, behaviors of purchase intention refers to someone involved in obtaining virtual goods wanted by players (Stefany, 2014). (Jin and Sun, 2015) stated on their research that users' purchase intention of virtual goods may not entirely be determined by technological factors even though they are the only means to facilitate virtual world. The virtual goods purchase behavior may be determined also by the demand.

In conclusion, purchase intention of virtual items refers to the player's desire to obtain particular items through virtual transactions. Prior research from (Stefany, 2014) found that purchase intention significantly supports the actual purchase behavior. This study hypothesizes that purchase intention positively affects actual purchase behavior of virtual goods in online games.

**H5: Purchase Intention affect positively on Actual Purchase Behavior.**

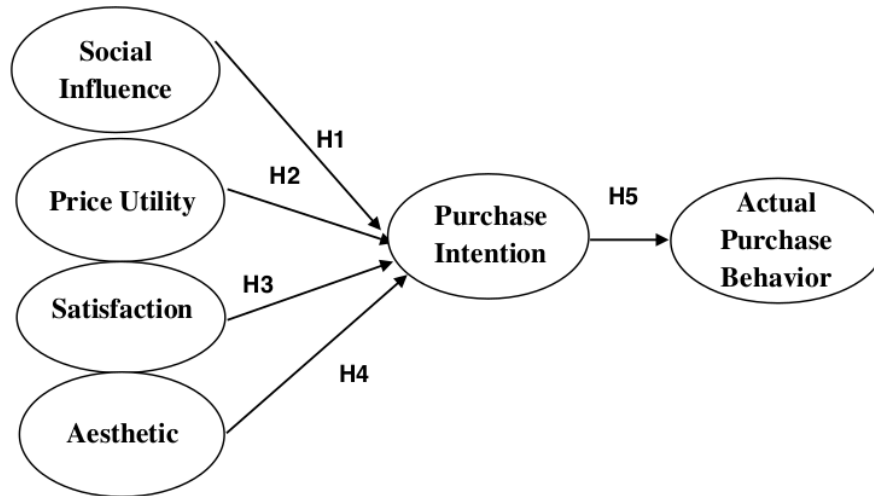
**Actual Purchase Behavior.** (Wee et al., 2014) stated on his research that the theory of planned behavior is when the consumer that has the intention to purchase services or products will indicate higher actual buying rates than those customers who do not have any intention of buying. The intention represent a person's readiness to act the given behavior, and the best predictor of behavior is the intention. According to the theory of reason action, the stronger the intention of a person's to perform a particular behavior, the greater



purchasing behavior will be performed. Results of studies have explained that the path from intentions of buying a virtual item to the actual purchase behavior is positive and significant. Prior researches by (Wee et al., 2014) and (Stefany, 2014) shown that purchase intention is related positively to actual purchase behavior.

**Research Model**

**Figure 3.** Research Model



**METHODS**

This study using quantitative method. Population in this research are online game users while, the sample used in this study are the users of online game Audition. The sampling technique used in this study is *non-probability sampling* with *convenience* technique. The number of sample sizes at least four or five times the number of constructs used in each variables (Permana and Haryanto, 2013). As there are 30 constructs in total, the minimum sample needed in this research is 150 respondents. Primary data used in this study and were collected by distributing questionnaires online to the users of online game Audition who are the active users of Facebook and Instagram. The data were obtained through field research and self-processed The technique used in this study is quantitative research using SEM (*Structural Equation Modeling*) with *Maximum Likelihood* methods.

This table below measure indicator of each variables about *social influence*, *price utility*, *satisfaction*, *aesthetic*, *purchase intention*, and *actual purchase behavior*. The overall observed variables can be seen in Table 1

**Table 1.** Observed Variables

Variables	Definitions	Indicators	Sources
<b>Social Influence</b>	the inner feelings of the interactions with other peoples in the platform through virtual objects	Form interpersonal bonds Make new friends Maintain relationship Considered by others Enhances relationship	(Cheng and Wu, 2012) and (Souza and Freitas, 2017) with modifications.
<b>Price Utility</b>	how reasonable the price offered and the function of the virtual goods itself	More valuable than the real price Reasonable price Good product Value for money Economical price	(Cheng and Wu, 2012).
<b>Satisfaction</b>	The response of consumers regarding their fulfillment of needs.	Good gameplay Satisfying gameplay Satisfying feature Satisfying account security Satisfying decision Wise choices	(Cheng and Wu, 2012) and (Bastian, 2015) with modifications.
<b>Aesthetic</b>	Subjective judgment based on aesthetics value which related to the reflection of individual preferences.	Aesthetically appealing Lovely Reflect beauty Aesthetically features Adorn character virtual	(Cheng and Wu, 2012) with modifications.
<b>Purchase Intention</b>	Estimation of individual probability when they will participate in the transaction of virtual goods within games.	Future intention Likelihood to buy Willingness to buy Probability to waste money High probability to buy	(Cheng and Wu, 2012) and (Souza Freitas, 2017) with modifications.
<b>Actual Purchase Behavior</b>	The consumer that have actual buying rates.	Fulfill desire Regularly buy Often buy Adore the items	(Wee et al., 2014) with modifications

Previously, a pre-test was conducted to 30 respondents to test the reliability and validity of each construct which would later be used as final research questionnaires in actual research. Descriptive analysis was used in this study to measure construct in each variables. This research measured each indicator by using a six-point Likert scale in which score 1 is defined as *Strongly Disagree*, 2 as *Disagree*, 3 as *Somewhat Disagree*, 4 as *Somewhat Agree*, 5 as *Agree*, and 6 as *Strongly Agree* (Makhriyani, 2012). This scale enables respondents to represent their degrees of agreeing or disagreeing towards each indicator.

The research conducted *pre-test* to find out whether the question of each constructs, filling instruction, and other important factors of the questionnaire can be well understood and accurately represent each variable. The results were used to evaluate, revise, and then redistribute the final research questionnaire to the actual respondents.

<sup>3</sup>  
**Table 2.** Reliability and Validity Pre-test Results

Variable	Indicator	Corrected Item-Total Correlation	Cronbach's Alpha	Action
Social Influence	SI1	.372	.680	Continue
	SI2	.512		Continue
	SI3	.565		Continue
	SI4	.279		Revise
	SI5	.499		Continue
Price Utility	PU1	.377	.785	Continue
	PU2	.510		Continue
	PU3	.765		Continue
	PU4	.752		Continue
	PU5	.445		Continue
Satisfaction	S1	.739	.891	Continue
	S2	.802		Continue
	S3	.717		Continue
	S4	.511		Continue
	S5	.815		Continue
	S6	.703		Continue
Aesthetic	A1	.389	.824	Continue
	A2	.795		Continue
	A3	.816		Continue
	A4	.666		Continue
	A5	.500		Continue
Purchase Intention	PI1	.769	.881	Continue
	PI2	.787		Continue
	PI3	.859		Continue
	PI4	.430		Continue
	PI5	.798		Continue
Actual Purchase Behavior	AP1	.800	.884	Continue
	AP2	.715		Continue
	AP3	.833		Continue
	AP4	.647		Continue

<sup>3</sup>  
 Reliability and validity testing were done by looking <sup>3</sup> the values of *Cronbach's Alpha* and *Corrected Item-Total Correlation*. The result of *Cronbach's Alpha* generated from each variable and *Corrected Item-Total Correlation* obtained from each indicator. According to (Saidani and Arifin, 2012), the minimum value of *Cronbach's Alpha* must be above .60. As for the *Corrected Item-Total Correlation*, the r value must be higher than r table. The r table used in this research is .361. The results of *Cronbach's Alpha* as seen in Table 2 show all variables exceed minimum requirements which means that all variables are reliable. While from the results of *Corrected Item-Total Correlation*, SI4 turned out to be invalid as the value is lower than .361. Therefore, researchers revised the SI4 indicator question from the previous 'Using the virtual goods here makes me become more noticed by others' to 'Using virtual items makes me become more considered by others'.

## RESULTS

The online questionnaires were distributed through Instagram and Facebook using *Google spreadsheets* in order to facilitate data collection and save time. The researcher managed to collect as many as 200 respondents after passing screening stage. This number has fulfilled the minimum sample size needed which is 150 respondents. After minimum respondents have been collected, the researcher summarizes the respondent profile as shown in Table 3.

**Table 3.** Profile Respondents

Category	Sub-category	Frequency	Percentage (%)
Gender	Female	73	36.5
	Male	127	63.5
Age	Under 20 years old	88	44
	Between 21-35 years old	112	56
	Over 35 years old	0	0
Current Education	Junior High School	6	3
	Senior High School	71	35.5
	College Student	97	48.5
	Bachelor	26	13
Long Game Play in a Week	Less than 10 hours	87	43.5
	10 – 20 hours	55	27.5
	20 – 30 hours	28	14
	30 – 40 hours	11	5.5
	More than 40 hours	19	9.5

*Confirmatory factor analysis* (CFA) refers to a statistical technique used to verify whether there is a relationship between the indicators and observed variables adopted from prior theory or research (Suhr, 2006). CFA was used in this study because indicators have been grouped into each observed variable. The technique used in this CFA is *Convergent Validity*. *Convergent validity* is a test to examine whether the indicators of each variable used are significant in terms of reflecting construct or latent variables (Sukmono and Sudarso, 2011). *Convergent validity* test consists of *standardized loading factor* (SLF), *construct reliability*, and *variance extracted*.

(Hair et al., 2010) stated that the *standardized loading factor* (SLF) of the variables observed in the model that meets the good standards is if the value of SLF exceeds .50. If the SLF is lower than .50, the variable indicator has to be removed. As the SLF values of SI5, PU2, and PU3 are below .50, therefore they were all removed. The reliability and validity of this research were done by calculating the *construct reliability* and *variance extracted* from the values of *standardized loading factors* and *error variance*. According to (Ahmad et al., 2016), the reliability of the model is good if the *Construct Reliability* exceeds .60 and the validity of the model is good if the *Variance Extracted* exceeds .50.

**Table 4.** Convergent Validity

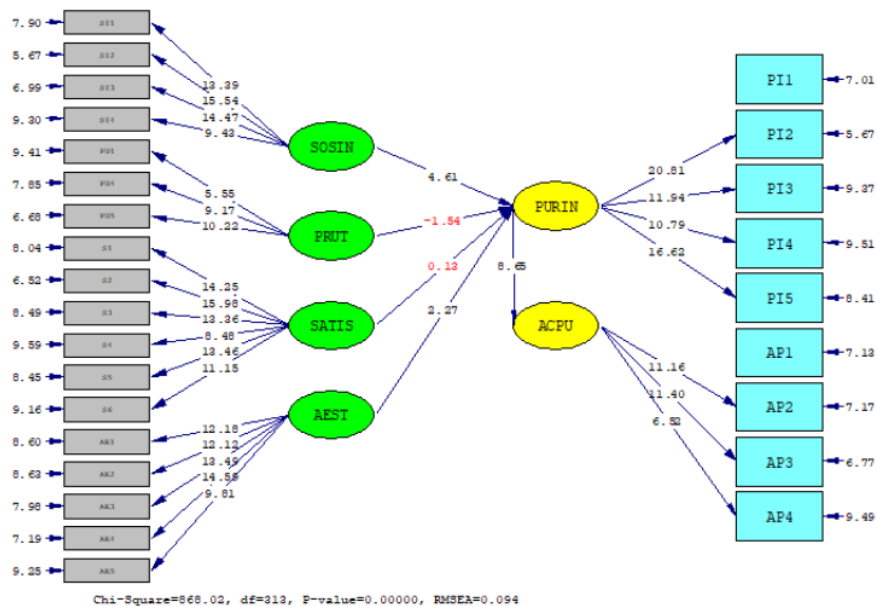
Variable	Indicator	SLF	Error	Construct Reliability	Variance Extracted
Social Influence	SI1	.80	.35	.87	.63
	SI2	.90	.19		
	SI3	.86	.26		
	SI4	.61	.63		
Price Utility	PU1	.80	.75	.65	.52
	PU4	.65	.57		
	PU5	.72	.48		
Satisfaction	S1	.84	.29	.89	.60
	S2	.90	.19		
	S3	.80	.36		
	S4	.57	.68		
	S5	.81	.35		
	S6	.70	.51		
Aesthetic	AE1	.76	.43	.87	.59
	AE2	.78	.39		
	AE3	.84	.30		
	AE4	.84	.30		
	AE5	.59	.65		
Purchase Intention	PI1	.91	.18	.90	.64
	PI2	.95	.10		
	PI3	.68	.53		
	PI4	.62	.61		
	PI5	.82	.33		
Actual Purchase	AP1	.81	.35	.81	.53
	AP2	.78	.38		
	AP3	.80	.37		
	AP4	.50	.75		

**Goodness of Fit Measurement Models.** The Goodness of Fit is generated by using LISREL 88 to check whether the values of *p-value*, *RMSEA*, *NFI*, *NNFI*, *CFI*, *IFI*, *RFI*, *Standardized RMR*, *GFI*, and *AGFI* which are obtained in output are meet various sizes that will indicate a good match or not.

Table 5. Goodness of Fit Index

Indicator	Standard Value for Good Fit	Analysis Result	Model Evaluation
<i>p</i> -value	≥ .05	.00	Marginal Fit
RMSEA	≤ .08	.09	Marginal Fit
NFI	≥ .90	.91	Good Fit
NNFI	≥ .90	.94	Good Fit
CFI	≥ .90	.94	Good Fit
IFI	≥ .90	.94	Good Fit
RFI	≥ .90	.90	Good Fit
SRMR	≤ .05	.10	Marginal Fit
GFI	≥ .90	.76	Marginal Fit
AGFI	≥ .90	.71	Marginal Fit

Figure 4. t-value Diagram



From the structural model obtained, the positive influence of one latent variable with the other latent variables is determined by looking at the *t*-value. When *t*-value exceeds 1.96, the latent variable gives a positive influence to the other latent variables (Permana and Haryanto, 2013). Conversely, if *t*-value is less than 1.96, the latent variable does not have a significant positive influence on the other latent variables. Table 6 below shows the results regarding the value of *t* in the structural model that has been processed by the researcher.

Table 6. Hypotheses Analysis

Hypotheses	Hypotheses Statement	T-value	Result
H1	Social Influence has a positive effect on Purchase Intention	4.61	Data support the hypothesis
H2	Price Utility has a positive effect on Purchase Intention	-1.54	Data does not support the hypothesis
H3	Satisfaction has a positive effect on Purchase Intention	0.12	Data does not support the hypothesis
H4	Aesthetic has a positive effect on Purchase Intention	2.27	Data support the hypothesis
H5	Purchase Intention has a positive effect on Actual Purchase Behavior	8.65	Data support the hypothesis

The use of  $R^2$  or *coefficients of determination* serves to show how far each variable is able to explain the dependent variable (Saidani and Arifin, 2012). According to (Makhriyani, 2012), the coefficient of determination in structural equations does not have a clear interpretation and to interpret  $R^2$  as in the regression equation, we must take it from reduced form equations. Based on the reduced form equations of LISREL output, *social influence*, *price utility*, *satisfaction*, and *aesthetic* on *purchase intention* has  $R^2$  value of 0.36. This shows that 36% of the *purchase intention* variants can be explained by *social influence*, *price utility*, *satisfaction*, and *aesthetic*, while 64% of other variants are explained by other factors which are not discussed in this study. Further, the effect of *purchase intention* on *actual purchase behavior* has  $R^2$  of 0.43. This implies that 43% of the *actual purchase behavior* variants can be explained by *purchase intention*, while 57% other variants are explained by other factors which are not discussed in this study.

**Hypothesis Analysis.** There are five hypotheses in this study. Hypothesis testing analysis was carried out with a 5% significance level to produce a crisis value  $t \pm 1.96$ . The hypothesis is accepted if the *t-value* obtained exceeds 1.96, while the hypothesis is not supported if the *t-value* obtained is less than 1.96. The following is a summary of the hypothesis test to see if the proposed model is supported by data:

**H1: Social Influence affects positively on Purchase Intention.**

Based on the results of Table 6 above, it is found that; *social influence* has a positive effect on *purchase intention* as the *t-value* is 4.61 which fulfills the statistical requirements. In proposing H1, it is found that *social influence* is considered as capable of giving a positive influence on *purchase intention* of the players related to virtual items in game Audition. This is also supported by previous researches by (Lu et al., 2016), (Ho and Wu, 2012), (Hung et al., 2011), and (Guo and Barnes, 2007) who stated that *social influence* has a positive effect on *purchase intention*. Researcher presumes it is because players believe that buying a virtual item can help players find new friends, build up, or even maintain a social relationship between players. The better the social influence obtained by the player, the better the effect on the intention to purchase virtual items in Audition game.

**H2: Price Utility affects positively on Purchase Intention.**

Based on the results of Table 6 above, it is found that; *price utility* not support *purchase intention* as the t-value is -1.54 which does not meet statistical requirements. Therefore, H2 in this study is not supported. This finding is in line with previous researches by (Kim et al., 2011), (Kim et al., 2009), and (Furnols et al., 2011) who state that price utility does not affect the purchase intention positively. Researcher presumes it could be caused by the majority of respondents who filled out this questionnaire are college students who most of them do not yet have their own income, thus their expenditure is limited.

### H3: Satisfaction affects positively on Purchase Intention.

Based on the results of Table 6 above, it is found that; *satisfaction* not support *purchase intention* as the t-value is 0.12 which does not meet statistical requirements. Therefore, H3 in this study is not supported. This is contrary to the research by (Ho and Wu, 2012), (Bastian, 2015), (Bai et al., 2008), and (Chen, 2008) who state that satisfaction has a positive effect on purchase intention. Researcher presumes it could be caused by the majority of respondents who filled out this questionnaire are players who have long game play in a week is less than 10 hours.

### H4: Aesthetic affects positively on Purchase Intention.

Based on the results of Table 6 above, it is found that; *aesthetic* has a positive effect on *purchase intention* as the t-value is 2.27 which fulfills the statistical requirements. In proposing H4, it is found that *aesthetic* is considered as capable of providing a positive influence on *purchase intention* of the players related to virtual items in game Audition. Researcher presumes it is because players believe that the virtual items offered are good and aesthetically attractive which make the players to be more recognized in the virtual world and encourage them to buy virtual items. This finding is also supported by previous researches by (Ho and Wu, 2013), (Shaharudin et al., 2013), and (Kim et al., 2011) who state that *aesthetic* has a positive effect on *purchase intention*. The better the value of virtual aesthetic items and ability to reflect the appearance of individual players in the virtual world, the better the effect on the purchase intention of virtual items in the Audition game.

### H5: Purchase Intention affect positively on Actual Purchase Behavior.

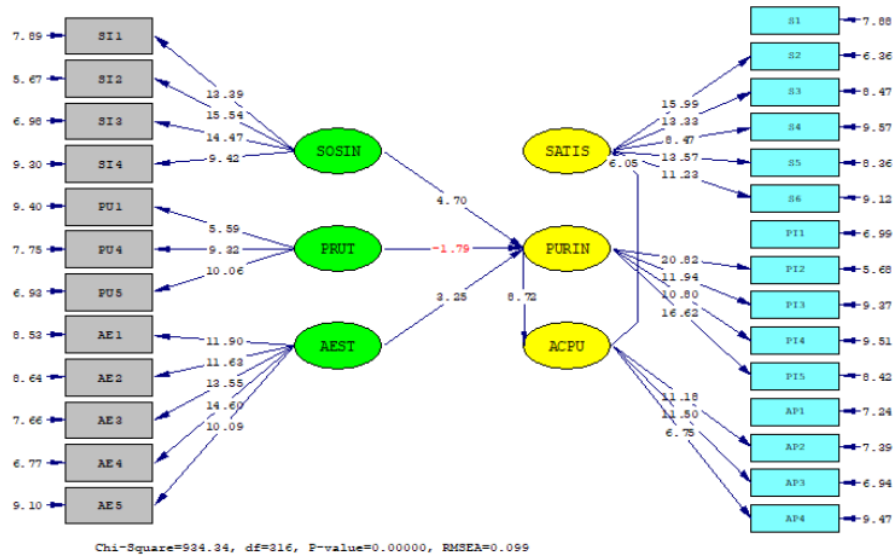
Based on the results of Table 6 above, it is found that; *purchase intention* has a positive effect on *actual purchase behavior* as the t-value is 8.65 which fulfills statistical requirements. In proposing H5, it is found that *purchase intention* is considered as capable of providing a positive influence on *actual purchase behavior* of players related to virtual items in Audition. Researcher presumes, if the player has intention to buy, actual purchase decisions will arise. This finding is supported by previous researches of (Wee et al., 2014) and (Stefany, 2014) who state that *purchase intention* has a positive influence to *actual purchase behavior*. This finding is also supported by the theory proposed by (Wee et al., 2014) of planned behavior which explains that consumers who have intentions to buy products or services will indicate higher actual buying rates compared to those who do not have any intention at all.



## DISCUSSION

From the results of this study, the t-value used to measure the significance level of price utility with purchase intention is -1.54. It may be concluded that the higher price offered by the producer, the lower their intention to buy virtual goods.

Figure 4. t-value Diagram



Researcher presumes it is because the majority of respondents are college students who do not have yet income, but allowances. This also supports our common understanding about the negative effect of price toward purchase intention. Our context is virtual goods which is actually considered as non primary product, so it is very logical if price has negative effect towards purchase intention. Furthermore, the researcher also discovered a new phenomenon. Previous studies found that satisfaction of the players affects the purchase intention, while this study found that players satisfaction emerges after their actual purchase. It could be explained that satisfaction is the comparison of expectation and perceived benefits. Thus, in order to be satisfied they have to purchase it first to get the experience and perceived benefits. Researcher presumes it is caused by differences in respondents where in previous studies, satisfaction of the players affects purchase intention on roleplaying game players. Meanwhile, the satisfaction in the socializer game rises after the purchase of the players. The path analysis of this new discovery proven by the results as seen in Figure 4 below.

## CONCLUSION

From the hypothesis analysis above, the researcher concludes that social influence and aesthetics have a positive influence on purchase intention and purchase intention has a

positive effect on actual purchase behavior. It means that social interaction between players in a virtual world provides a significant contribution to their intention to buy virtual items in Audition games in the future. After the players have the intention, they finally enter the purchase process. In addition, aesthetic factors also contribute significantly to the purchase intention of virtual items in the Audition game in the future. It means that the better the aesthetic value offered related to preferences of each player, the higher the probability of players to have purchase intention of virtual items in game Audition. Meanwhile, price utility and satisfaction do not positively influence in the purchase intention presumably because the respondents in this study are Audition game players which are socializer game players. This finding is in contrast with the previous researches that specifically studied the players of role-playing games. The researcher hopes that this research can be a reference for future studies which discuss social influence, price utility, satisfaction, aesthetics, and purchase intention in its influence on actual purchase behavior.

**Managerial Implication.** After conducting this research, expectations in the future for PT. Megaxus Infotech as a company that markets Audition game are to strengthen the online gaming market in Indonesia, which has a population over 260 million and huge potential in the gaming industry. The researcher suggests to develop features which are related to players' social relationship by adding player slots in the room, from initially 6 slots to 8 or 10 slots. This development may create or consolidate the relationship among players. With the addition of player slots in the room, it is expected to increase interaction with fellow players through virtual objects in a virtual world. Furthermore, Audition can focus to encourage the players' purchase intention by developing more attractive and aesthetic virtual items that may fulfill individual preferences of players in virtual worlds. The researcher also suggests to offer virtual items that currently in trends, such as creating outfit used by actress or idol who are favored at the time.

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