The Influence of Integrated Value in Purchasing Game Item and Game Satisfaction against Game Item Purchase Intention over the Unknown's Battlegrounds Player

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The existence of online gaming as entertainment is inseparable from the rapid development of technology that allows an online battle games to be used at any time. In this study, we determine the effect of integrated value of purchasing game items and satisfaction about games on game item purchase intentions by examines the respondents of the game Player Unknown's Battle Grounds and involves as many as 200 respondents using the Structural Equation Modelling (SEM) method. The results showed that there was a relationship between integrated value of purchasing game items against satisfaction about game, there was a relationship between integrated value of purchasing game items on game item purchase intentions, there was a relationship between satisfaction about game and game item purchase intentions. And satisfaction about game mediates the relationship between integrated value of purchasing game items and game item purchase intentions.

Keywords: Integrated value of purchasing game item, Satisfaction about game, Game item purchase intentions, PUBG, Online Gaming

1. INTRODUCTION

The Internet has become a basic necessity at this time. The internet is used for various needs ranging from information searching, trading, and of course entertainment. Following this change, the development of online games in recent years shows very significant changes along with the development of gadgets that have a high capacity to run online games on mobile devices, namely mobile phones. Today's game users are 2.3 billion and Indonesia alone has 52 million online game users [1]. This development shows that the online game industry has become one of the profitable e-commerce businesses. The battle royal mobile game category for players who want to improve the character's abilities, the player is given the option to improve equipment, ranging from costumes, weapons, and equipment. Therefore many game users are accustomed to and want to buy game items. Consumer satisfaction will be a product created if the expectations and reality of consumers are no different. Consumers are satisfied with the product when getting a value that is in line with their expectations. The satisfaction of the game will appear when the game can provide quality game items as promised in the game item. Satisfaction arises over repeated use and consumers feel the same or increased satisfaction. Consumers in using products consider consumption value. In every product some values will be felt by customers when using it, a good product can provide maximum benefits and will give satisfaction when used. Game items also determine the satisfaction created by using the game, the added value felt by users when making improvements to the game items in their account will also create buying interest to buy every item released by the game. The satisfaction with the game influences the formation of a player's buying interest in-game items, players who feel a significant effect in using game items have a high level of buying interest to continue to improve game items and have higher attention towards promotion or Game item updates [2, 3]. Satisfaction with the game is related to purchase intention for game items as players in the game wherein this case satisfaction in the decision to play and satisfaction in choices are interrelated in influencing the purchase interest over game items [4, 5].
The consumption values such as functional values (price and quality utilities), emotional values (aesthetics and pleasure), social values (social self-image expression and social relations), satisfaction with play and character identification, are all major influences in consumer buying interest [5, 6]. Game users will buy game items if they become stronger, happier, and can notify other users when buying game items [7]. Apparently, game item users assess the overall value by considering several value dimensions with the costs incurred then used as a basis for making an intention to use game items [8, 9]. In research on the dimensions of other virtual game, the items founded over last significant factor due to monetary value which shows the buying interest of gamers through online game prepaid cards depending on whether it is necessary to exchange game items or can be considered a kind of virtual currency in cyberspace. This is not in accordance with other research which states that there is an influence between the integrated value of purchasing game items on game item purchase intention which is shows there is no influence of character competency value and visual authority value does not affect purchase intention so this research will confirm again whether there is an overall integrated value of game item purchasing effect on game item purchase intention. The game satisfaction is defined as a positive affective state resulting from the overall evaluation of gamers of their experiences in online games that are positively related to engagement [10, 11].

Also, ease of use is an important driver in determining user interest in in-game purchases. Satisfaction is found to have a positive effect on players' purchase intentions in the game. This shows that service providers and game companies must maximize the satisfaction of the players in the game so that they generate more revenue and continue their operations [12]. However, the research an empirical results show that, regardless of how satisfied the players are with the game itself, they do not always intend to buy game items [13]. This is not following other studies that said there is an influence between satisfaction about game items on game item purchase intention. Research on the influence of satisfaction about game items has a gap in research results related to the findings shows there is no effect of satisfaction about game items on purchase intentions so this study will reconfirm whether there is an effect of satisfaction about game items against game item purchase intention [14, 15]. The online games as a means of entertainment or to seek pleasure with the facts is suggest that 90.1% of all respondents make buying and selling transactions in online games [16]. So based on the background, the purpose of this study is to examine the effect of total value consumption and satisfaction on purchase intention.

2. METHODOLOGY

A. Theory of Consumption Value (TCV)

The definition of the theory of consumption value (TCV) or theory of consumption value is about the process for making a new decision. The theory explains five values namely, functional, social, emotional, conditional and curious [17, 18]. According to the consumption theory, value can explain why consumers choose or not choose buy or not buy and why consumers decide to choose certain products or brands over others.

A consumption value theory has three fundamental propositions, where consumer behavior is a function of various consumption values, consumption values have different contributions in each purchasing situation, and consumption values are independent [19, 20]. Each of these values has a different contribution to certain buying situations. In this study, the integration value factor was developed using consumption value theory to assess the purchase value of online game items: (1) Enjoyment value, where gamers buy game items to increase the fun associated with playing games; (2) Character competency value, where gamers buy game items to increase the strength and strength of character in the context of the game; (3) Visual authority value, where gamers buy game items to decorate their characters, because game items are rare, or to improve their status in the social context of the game; (4) Monetary value, where game users buy game items because the price is effective and the price is affordable.

B. Satisfaction

The definition of satisfaction is a person's feelings of pleasure or disappointment arising from comparing the performance of the product (or outcome) to their expectations [21]. Satisfaction is the level of one's feelings after comparing the performance or the results he feels with his expectations [22]. So it can be said that satisfaction is a decisive factor in marketing, on the contrary, customer disappointment can lead to the company's destruction in the future. In the evaluation model, the customer will judge the overall performance of the product or service. In general, satisfied customers will intend to purchase a product or service. However, dissatisfied customers are looking for other products or services [23]. In a gaming environment, when gamers enjoy online games, they will play games more often and motivate gamers to buy online game items that they consider valuable [24].

C. Purchase Intentions

The definition of purchase intentions is the possibility of a consumer planning to buy a particular product at a certain period and that happens after the consumer stores
relevant information to determine a buying decision [25]. The purchase intentions are plans carried out by conscious individuals who are an attempt to buy a product [26]. Intention to buy based on consumer attitudes that lead to specific brand purchases, subjective norms that affect individual expectations, where subjective norms refer to social factors in the form of beliefs about what is normative behavior (expectations of others) and motivation to act according to the norm [27]. While consumer attitude has been identified as the main factor used by customers when they need to evaluate a product and determine its value to issue a purchase intention [28]. Whereas, in this study the intended purchase intention is the intention to purchase virtual items in online games and to measure the intention to purchase virtual items online games will adopt the intention to purchase game items is seen from gamers interacting with other game characters and trying to gain more power than other gamers, motivating gamers to buy online game items that they consider valuable [28, 29, 30].

D. Relationship of Integrated Value of Purchasing Game Items to Game Item Purchase Intentions

The value of virtual items is closely related to online games, such as price or meaning, the quality of virtual items in the relevant online game, so it will be seen to affect whether or not the virtual item is suitable for use [31]. Purchase intentions are used to measure the likelihood of consumers to buy a product, so the higher the intention to buy owned by an individual, the higher the availability to purchase a product [32]. The value of virtual items affect the intention to purchase virtual items [32, 33, 34]. Based on the above literature the hypothesis can be put forward:

\[ H_1: \text{the Integrated value of purchasing game items has a positive effect on game item purchase intentions} \]

Relationship of Integrated Value of Purchasing Game Items to Satisfaction about Game Customer satisfaction is influenced by price factors following the product, service quality and product quality sold [35]. Therefore, companies engaged in entertainment services (online games) are expected to be able to create attractive virtual items or virtual items that can support the game process, so that players will feel satisfied. A virtual item can function, facilitate and expedite the process of playing a game [36]. The value of virtual items affects consumer satisfaction in playing games [37]. Based on the above literature the hypothesis can be put forward:

\[ H_2: \text{the Integrated value of purchasing game items has a positive effect on satisfaction about the game} \]

E. Relationship of Satisfaction about Game to Game Item Purchase Intentions

Quality has a close relationship with customer satisfaction. Quality will encourage consumers to establish close relationships with companies [38]. Therefore, if consumer satisfaction is achieved by what he feels it will have an impact on consumers’ desire to buy a product. The gamers will be more willing to buy virtual items if the product is perceived to have a beneficial function to be superior to other players, which before buying, consumers will usually collect product information based on experience [38, 39]. A customer satisfaction is determined by products it consumes performance. When players are satisfied with the online game being played, there will be an intention to make virtual item purchases [39]. Furthermore, the satisfaction of playing games has an effect on the intention to purchase virtual items. Based on the above literature the hypothesis can be put forward:

\[ H_3: \text{Satisfaction about the game has a positive effect on Game Item Purchase Intentions} \]

From the description above, the research model can be described in Figure 1.

![Research model](image1)

**Figure 1. Research model**

F. Research Framework

In this study, we use take the data from a Player of the Unknown's Battle Ground in the Jakarta area with the following conditions: (1) at least 17 years old; (2) has used the game for more than 1 year; (3) already working. The sampling method requires the right method to obtain the right sample and representative sample and can describe the population to the fullest. The minimum sample size ranges from 100 to 200 observations depending on the number of indicators estimated. The guideline is 5-20 times the number of indicators estimated. There are 20 questions, so that 20 at 10 times the indicator questions that the results amounted to 200, then in this study using purposive sampling that is the User Unknown's Battle Ground in the Jakarta area with a total of 200 users. Furthermore, the method of data analysis in this study uses Structural Equation Modeling (SEM). SEM is a multivariate statistical technique that combines aspects in multiple regression (which aims to test the dependent relationship) and factor analysis (which presents
unmeasured concepts factors with multiple variables) that can be used to estimate a series of dependent relationships that influence each other together.

G. Measurement
In our study, there were 1 independent variable (exogenous), namely integrated value of purchasing game items and 2 dependent variables (endogenous), namely satisfaction about the game and game item purchase intention. We measure the variable value of purchasing game items using indicators with dimensions consisting of enjoyment value, character competency value, visual authority value and monetary value as many as 13 indicators than for satisfaction about the game as many as 4 indicators from game items and purchase intention as many as 3 indicators. The scale of measurement by Likert scale method. On the Likert scale the method used is to use five alternative answers: on a score of 5 ratings strongly agree (SS), a score of 4 ratings agree (S), a score of 3 neutral ratings (N), a score of 2 ratings do not agree (TS) and a score of 1 assessment strongly disagrees (STS). Furthermore, from the measurement dimensions displayed in the form of a questionnaire, we conducted a validity and reliability test. In validity test, we use Confirmatory Factor Analysis is by looking at the value of the Kaiser-Meyer-Olkin Measure of Sampling (KMO) and Measures of Sampling Adequacy (MSA). In this test the value achieved must be greater than 0.5 which means that the factor analysis is appropriate or appropriate. The scale of all variables produces valid values. Cronbach Alpha reliability test is greater than 0.6, which means reliable, which means the indicators of all variables can be trusted as a data collection tool in research. In the next step, we process the data using the SEM (Structural Equation Modeling) analysis method.

3. RESULT AND DISCUSSION
A. Validity Test and Reliability Test (Pretest)
The results of validity testing with confirmatory factor analysis show that all indicators of the integrated value of purchasing game items, satisfaction about games and game items purchase intention have been declared valid with KMO and MSA values> 0.500 and 1 component matrix). Furthermore, reliability testing on all indicators of the integrated value of purchasing game items, satisfaction about the game and game item purchase intention shows a Cronbach alpha value> 0.5, which means reliable.

B. Test Validity and Reliability of Constructions
In the measurement results of construct validity, all indicators on the integrated value of purchasing game items (enjoyment value, character competency value, visual authority value, and monetary value), satisfaction about the game and game item purchase intention can be accepted, because the factor loading value has a good match (> 0.50), and the t-value is greater than t-table (1.96) at the 5% significance level. Furthermore, the construct reliability test meets the reliability requirements with CR values above 0.60 and VE values above 0.50 where in CR value, all variables meet the reliable requirements, namely values above 0.60, the integrated value of purchasing game items (0.85), satisfaction about games (0.93), and game item purchase intention (0.95). Here, VE values meet the reliable requirements ie values above 0.50, for the integrated value of purchasing game items (0.59), satisfaction about the game (0.78) and game item purchase intention (0.87).

C. Structural Test Analysis
Structural test analysis can be seen from the R² value. The value of R² for each equation serves to show how far the independent variable can explain the dependent variable. The results of the first analysis, namely the integrated value of purchasing game items (IVP) affect satisfaction about the game (S) with an R2 of 0.61. This means that 61% of the variants of the variable satisfaction about the game (S) can be explained by the integrated value of purchasing game items (IVP), while the remaining 39% can be explained by other variables that do not exist in this study. The results of the two analyzes, which are jointly integrated value of purchasing game items (IVP) and satisfaction about the game (S) affect the game item purchase intention (PI) with an R2 of 0.56. This means that 56% of variants of game item purchase intention (PI) can be explained by the same variable integrated value of purchasing game items (IVP) and satisfaction about games (S), while the remaining 44% can be explained by other variables that are not in this study.

D. Model Conformity Test Analysis
From the analysis of the suitability test, all tests showed good compatibility including ECVI, AIC, and CAIC, Fit Index, while Chi-Square, RMSEA, Critical N and Goodness of Fit showed marginal fit. It can be concluded that the suitability of all models meets the requirements (goodness of fit). Furthermore, this research produces the T-Value path diagram (see Figure 2)

E. T-Value Path Chart
Based on Figure 2 Path Diagram T-Value, the hypothesis in this study is presented in Table I.
The mediating variable in this study is satisfaction with the game. Mediation variable analysis can be done through two approaches, namely, the coefficient difference and multiplication. The first approach is carried out by examining through analysis with and without mediating variables. The results of this study will conclude two mediation results, namely the coefficient multiplication method. The first result is the testing of research hypotheses showing the influence of the satisfaction about game mediation variable between the integrated value of purchasing game items on game item purchase intentions on the Player of the Unknown’s Battle Ground. Based on the test results from coefficient difference in the research model shows the integrated value of purchasing game items has a direct effect on the satisfaction of the game with a value of $t = 10.49 (> 1.96)$. In the integrated value of purchasing game items directly affect the game item purchase intentions with a value of $t = 4.45 (> 1.96)$ then the satisfaction about the game directly affects the game item purchase intentions with a value of $t = 3.44 (> 1.96)$. So it can be concluded that satisfaction about the game can mediate the relationship of the integrated value of purchasing game items to game item purchase intentions on Player Unknown's Battle Ground users. It can be said that partial mediation analysis occurs because it can affect directly and indirectly. In this study some results show that there is an influence of the integrated value of purchasing game items on game item purchase intentions, meaning that the higher the level of the integrated value of purchasing game items. Here, the influence of integrated value of purchasing game items on game item purchase intentions. However, the effect of the integrated value of purchasing game items on game item purchase intentions. In games, game items are considered as important criteria that can be used as a comparison with other players. This explains why the value of visual authority is important to encourage interest in buying players to buy game items. Based on this psychological character, online game companies continually increase their prices and game items. Gamers are also interested in certain types of functions available in-game items. Product cues have been identified as a major factor and are used by customers when they evaluate a product before deciding to buy. In every online battle game, there is always a large selection of game items provided. The provision of this game item aims to provide comfort in playing the game and accelerate the upgrade process in the game. The variety of choices given to users to increase their value and ability in the game can also help increase levels in the game. These items have their respective functions and affect the value in the game. In the PUBG game, the items available are game items that function to increase the value and ability of game characters, from healing, weapons, skins, and points.

Developers can increase the uniqueness of these items ranging from improving the types and capabilities of weapons and releasing weapons for special events. Then for the character competency value dimension which is about the character value owned by the player, focus on the player’s character development features. Developers can enhance features for character development by providing easy access to level up points and providing differentiation for player characters, for example by providing character levels based on the amount of play or the level of game wins that have been done by players. Customize new characters that are developed following other characters such as movie characters, comics, and others. The addition of another integrated dimension of game item purchasing is monetary value, which is about the value of the game item itself. The value felt by the players must match or even exceed the costs they incur to buy game items. Providing game items that are following the cost so that players will feel the benefits under their sacrifice to get game items. This must be done by the developer so that there is no disappointment from the player function of these items that will make gamers more comfortable in using the game and help them to reach the desired level faster. The value of the game items provided will make players have the intention to buy the released game items. The need to reach a certain level in a game faster to get an assessment from other gamers makes many gamers competing to be able to have a unique game item or limited edition.

The effect of enjoyment is very important for adoption. Users want to show themselves to their community and other players with the values provided in-game items because in the game world items are important criteria for comparing players. Consumption of digital goods has a symbolic meaning and is related to how they want others to see it as an expression of self-image and it influences purchasing decisions. For the next test results which state the integrated value of purchasing game items affects the satisfaction about the game. The importance of the role of game items in the formation of satisfaction with the game because game items become support so that players can feel the fun and ease of using games with the support of game items in the game. By using game items players can improve their character’s abilities so that the game becomes more fun to use. The integrated value of purchasing game items affects the satisfaction about the game. However, the integrated value of purchasing game items does not affect the satisfaction about the game. For the next test results which stated that the effect of the game affects the game item purchase intentions, it is found that there is an effect so that it can be said that player

### Table I. Research Model Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis statement</th>
<th>$t$-Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$</td>
<td>The integrated value of purchasing game items affects the game item purchase intentions</td>
<td>4.45</td>
<td>Data support the hypothesis</td>
</tr>
<tr>
<td>$H_2$</td>
<td>The integrated value of purchasing game items has an effect on the satisfaction about the game</td>
<td>10.49</td>
<td>Data support the hypothesis</td>
</tr>
<tr>
<td>$H_3$</td>
<td>Satisfaction about game affects game item purchase intentions</td>
<td>3.44</td>
<td>Data support the hypothesis</td>
</tr>
</tbody>
</table>
satisfaction in using the game will increase the level of purchase intention towards the game item. Gamers who use game items will feel a high level of control will be motivated to play more often and longer. The more rewards gamers receive by buying game items, the more time they will spend playing. Gamers use game items to compete or cooperate with other players and feel that they have a different level from gamers who do not have game items, which leads to playing more and being more satisfied with the game. Game satisfaction is a positive affective state that results from player evaluations of their experience in online games that are positively related to engagement. Also, ease of use is an important driver in computer game adoption and in-game user purchases. If the game is too easy to master can lead to boredom and if a game is too difficult to learn it might not get pleasure from playing the game so there might be a weak point. A satisfaction about game affects the game item purchase intentions. The impact of customer satisfaction in e-commerce and defined customer satisfaction with prior purchasing experience with e-commerce companies. Purchase intention is called consumer subjective assessment as a general evaluation after purchasing a product. The role of consumer perceptions about online purchasing behavior in electronic satisfaction ratings. Their results reveal satisfaction is the most dominant factor in influencing consumer purchase intentions. A consumer perceptions of satisfaction must include evaluation of online and offline retail behavior. Overall, customer satisfaction in an online shopping environment increases rapidly when online satisfaction reduces complaints or the probability of return for online consumers, thereby affecting purchase intention.

4. CONCLUSION
The results can be concluded from this study, first, there is an influence between the integrated value of purchasing game items on game item purchase intentions on Player Unknown's Battle Ground users, secondly, there is a relationship between integrated value of purchasing game items, affecting the satisfaction about games on Player users Unknown's Battle Ground, thirdly there is a relationship between satisfaction about game affecting the game item purchase intentions on users of Unknown's Battle Ground. Some of the limitations contained in this study are that this study only discusses the integrated value of purchasing game item variables and satisfaction about the game to measure the item purchase intentions in Player Unknown's Battle Ground users. Then, the area covered in this study only examined in the Jakarta area. Furthermore, it is possible that the respondents did not fill in really or only filled in based on the expected ideal conditions, not the actual conditions that were happening. Future research developments can add other variables that are able to measure purchase intentions, expand the scope of research not only in the Jakarta area, and are expected to increase the number of respondents or samples so that they can better represent the real situation. This research discusses the influence of the integrated value of purchasing game item variables and satisfaction about the game on item purchase intentions on PUBG game players. The results of this study indicate that both the integrated value of purchasing game items and the static faction of games against item purchase intentions. In other words, item purchase intentions are influenced by the integrated value of purchasing game items and satisfaction about games owned by PUBG games. PUBG games also need to increase the integrated value of game item purchases to increase satisfaction about games and purchase intentions. Seeing the very rapid development of the game at this time because it is supported by the many appearances of the gamer profession and the emergence of many game events held both by the game developer itself and other parties. Therefore, managerial implications that can be proposed to increase the integrated value of purchasing game items on item purchase intentions is to look at the dimensions of the integrated value of purchasing game items used in this study. The satisfaction of the players in using a game must be maintained by the developer so that the game is not abandoned, changes must be made starting from the development of features, graphics, quality of use, as well as conducting events regularly to keep the community in the game to maintain the stability of the number of users. The developer must ensure that satisfaction in the game is not reduced by conducting surveys to see the player's assessment of the game regularly so that the development is carried out by player expectations. Then to maintain interest in buying players, developers can hold special discount events regularly for certain game items and to be able to reach the right players, developers can create a wishlist feature for game items so they can find out the game items that are most in-demand and can provide notification to players interested in game items that will be included in the discount event list.

References


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