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Analysis of Factors Affecting Purchase Intention of Virtual Items in Dota 2 Game at Jakarta

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Abstract

Dota (Defense of the ancient) is a Multiplayer Online Battle Arena (MOBA) online game. Many Dota 2 players buy items where these items are only cosmetic (beautify the appearance of the character) where this effect does not have a more effect that supports the chance for players to win the game and the price of these items is quite high, as well as product knowledge and response to these products. It is fairly positive so that it can make buying interest for the item quite high. This study examines the relationship between benefit value, product knowledge, price, attitude toward, and item purchase interest in Dota 2 games conducted by Dota 2 players in Jakarta. in this study there are two approaches to data collection as follows secondary data and primary data. Primary data is obtained from data through sources in order to obtain what is needed from research, primary data is obtained using a private network in order to get answers to questionnaires filled out by respondents through the media google form. Secondary data can be accessed by other researchers for different purposes, the source of data from secondary data is obtained from government publications, information from internet. A survey was conducted of 210 respondents (Dota 2 players). The Smart PLS version 3.8 program was used to run a panel data regression test on this research. The results indicated how purchase intention is positively affected by perceived value, product knowledge is highly effective toward purchase intention, purchase intention is affected by price, and purchase intention is impacted by attitude toward.

Keywords: Perceived Value, Product Knowledge, Price, Attitude Toward, Purchase Intention, Multiplayer Battle Online Game

Introduction

In Indonesia, internet users continue to increase sharply from year to year. The growth in technology is the most important factor in the surge of internet users in Indonesia. The Internet itself is a widely used media to fulfill their needs of information to support their activities. The survey results of the Indonesian Internet Service Providers Association (APJII) for the 2019-quarter II/2020 period noted that the number of internet users in Indonesia reached 196.7 million. This number increased by 23.5 million or 8.9% compared to 2018. At first, game is an entertainment media to relieve stress that can usually be done alone, together, or in groups. Along with the times, the game was supported by technology. In the past, traditional games that we often played were traditional games such as hide and seek, sack racing, etc. However, along with technological developments, video games were discovered. Video game is an electronic game that involves interaction in the form of a user interface that produces a visual display on an electronic screen such as television or monitor. Video games are also divided into many platforms: PC, console, handheld, mobile, arcade, and web browser.

The first online game in the world that boomed in 2001, one of the oldest online games and still exists today, is Ragnarok Online (2001). This game has a type of Massive Multiplayer Role-Playing Game (MMORPG) where this type of games is very thick with an adventure theme.

In 2005, an online game called Dota came from the abbreviation of (Defense of the ancient) made by Blizzard Entertainment, a division of Vivendi games. Dota is a Multiplayer Online Battle Arena (MOBA) online game. MOBA is a game where two teams of players fight on one map, destroying the enemy's main headquarters building to be the goal in this game (Sand et al, 2015). Eight years after the emergence of Dota, the valve corporation that became the Dota game developer continued its success by releasing the sequel to Dota 2, where Dota 2 was released in 2013. Dota 2 is a MOBA type game. Based on data collected, a 79.34% proportion of Dota 2 Indonesia players in Jakarta from 2012 to early 2015 (source: Trans Hybrid Communication).

Previous research has not discussed variables related to perceived value, product knowledge, price, attitude toward, and purchase intention and the industry being studied is not from the online game industry.

Considering that there are many players of Dota 2 in Indonesia and abroad, the Valve Corporation provides a variety of facilities that players can use by buying, such as weapons, skins, couriers, and others that can give a different look or show characteristics from the player. However, for these items, the valve corporation sells it at an average price of Rp 50,000 - 1,000,000, with the most expensive one Rp 29,000,000. Even if it costs a large amount, the existence of this game can still survive even if the number of game players Dota 2 is declining every day because many game lovers and new gamers are starting to switch from PC game players to mobile game players, especially for MOBA game players where this type of game has been found on mobile devices. Although the number of Dota 2 game players has decreased, the existence of this game has survived in a vulnerable time of more than one decade, and purchases (transactions) items from this game are still running.

Theoretical background

Literature review

Perceived Value

Perceived value relates to how many products consumers can get for a given price, which products are more economical, and what consumers have paid compared to what they got (Huwaishel & Meshal, 2018). Perceived value refers to the number of products customers can obtain at the given price, which is more cost-effective, and whether the value paid and what they received is equivalent (Santoso, 2018): emotional, social, price value, quality.

Product Knowledge

Product knowledge is consumer awareness to find information about a product (Sriminarti & Nora, 2018). Product knowledge also includes various information processed by consumers to get these products, product knowledge consists of knowledge of where to buy the product and when to buy the product, when the consumer decides to buy a product, he will decide where to buy the product and when to buy it (Khairunnisa & Hendratmi, 2019). Product Knowledge is a consumer's understanding of a product that can be used as material for consideration and guidance on products offered to consumers to determine their following action. (Trijumansyah et al., 2018): product attribute, physical benefits, psychological benefits, values obtained

Price

Price is price based on the value from the consumer side, can be grouped into four, namely: Consumers can see the value of the amount that has been spent (money with time), consumers can see what is received is in accordance with the price issued, consumers are concerned with low prices while quality is of greater importance low, consumers see something to satisfy desires (Abdurachman, 2016). Price implies as the only marketing mix component that generates revenue or company’s revenue (Suleman, 2018):

1. Affordability of the price
2. Price Competitiveness There are various prices for consumers
3. Price Compliance with product quality
4. Compatibility of prices with product benefits

Attitude Toward Virtual Item In Dota 2

Attitude toward is an individual estimate of whether the product is under choice to manage the desired attributes. When consumers show good attitudes towards certain behaviors, their behavioral intentions will increase because of it (Chee et al., 2020). The attitude toward was consumers studying the tendency to respond consistently to something they like or dislike the attention given to an object (Schiffman & Kanuk, 2007; Khairunnisa & Hendratmi, 2019): consumers like the benefits provided by the product of a brand, consumers like the ease of use of the product or brand used, consumers like the reliability of the product or brand, consumers like the service of the brand.

Purchase Intentiton

Purchase Intention refers to the internal driving factor influenced by a positive stimulus for the product (Nurvidiana, 2015). Purchase Intention is having the heart's desire for something high, according to theory. Purchase intention is the basis of the combined study of consumer behavior with intention thus making this arrangement important for consumer research based on (Ghalandari & Norouzi, 2012; Curvelo et al., 2019).

Hypothesis Development

Perceived Value and Purchase Intention

In this case, the correlation of purchase intention effect on perceived value is explained, whereby higher perceived value occurs with greater purchase intention (Henry et al., 2017). Kurniawan and Indriani (2018) state that a positive effect occurred between perceived value and purchase intent, similar to Li (2017).

According to a previous study, perceived value is ineffective toward purchase intention (Lomboan, 2017), and there is no impact on perceived value nor purchasing intention (Nihlah et al., 2018).

H1: perceived value has a positive effect towards purchase intention.

Product knowledge and Purchase Intention

Tanoto et al. (2018), in previous research, have research results on product knowledge that are positively correlated with purchase intention, whereby greater purchase intention will occur with more product knowledge. Purchase intention is significantly affected by product knowledge, showing its importance (Vivian et al., 2020). No direct influence on product knowledge or the intention to purchase was found (Tanoto et al., 2018; Wang et al., 2013)

H2: Product knowledge has a positive effect towards purchase intention.

Price and Purchase Intention

According to Dama (2016), price significantly affected purchase intention. Similarly, Nainggolan & Heryenzus (2018) discovered how price is substantial in affecting purchase intention (Nainggolan & Heryenzus, 2018). It is explained that there is a price that affects purchase intention in the journal (Nirushan, 2017). According to Satria (2017), the high intention to purchase could be influenced by price, making it substantially influential.

According to Aptaguna and Pitaloka (2016), price and purchasing intention have no substantial influence.

H3: Price has a positive effect towards purchase intention

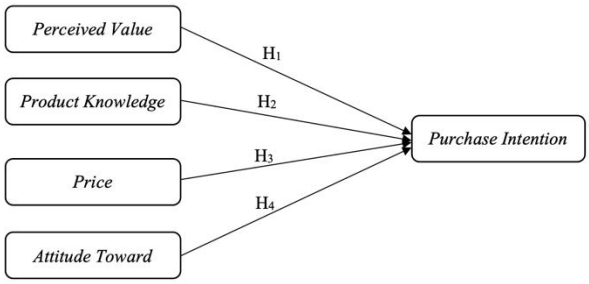
Attitude Toward and Purchase Intention

Yazdanpanah & Furouzani (2015); Yazar & Burucuoglu (2019) attitude toward strengthening or influencing purchase intention, showing that attitude acts as a strong determinant of purchase intention. Attitude is positively and substantially effective toward purchase intention (Sriminarti & Nora, 2018; Dhahak & Huseyno, 2020).

H4: Attitude toward virtual item dota has a positive effect towards purchase intention

Research Model

Figure 1: Authors' research model



Research Method

The quantitative design was used for this research with the independent factors being perceived value, product knowledge, price, and attitude toward, whereas the dependent variable is purchase intention. This study used non-probability sampling – convenience sampling as the sampling technique. The following is a series of this research process: In the beginning, this research was formulated by solving the problem and gathering the problem while finding out, here formulating the object, method, and journal as the foundation in this research. There are several pros and cons of purchasing intention on the player of Dota 2 at Jakarta. Because of the influencing factors such as perceived value, product knowledge, price, and attitude toward. After the phenomenon of many statements and research before, this stage developed a questionnaire conducted by looking at the related indicators obtained from the literature on relevant theories. According to the number of respondents, the questionnaire was successfully published and approved online by Dota 2 players in Jakarta. Hair et al., (2006); Tanuwijaya & Tannady, (2019) explained that the recommended number of samples depends on the number of indicators multiplied by 5 to 10. Based on the theory above, it can be concluded: this study has 21 indicators, then multiplied by ten, the results are 210 respondents to the questionnaire. The uestionnaires distributed from December 2020 to January 2021. After the data is collected, the data is implemented using Smart-PLS, which is requested to support the relationship with existing variables. This study uses SmartPLS version 3.8 based on SmartPLS analysis to analyze Hypotheses, so this study produces conclusions from the final results.

Results and Discussion

The respondents chosen in this study are Dota 2 gamers, especially millennials aged between 17-36 years old in Jakarta.

The questionnaire was compiled using the Google Form application. Questionnaires were distributed to respondents who were Dota 2 gamers in Jakarta. The total number of respondents found to have met the number of research samples is 210 (the number of indicators multiplied by 10).

Respondents Profile

Table 1: Profiles of Respondents

Gender	
Male	155
Female	55
Long Time Playing Dota 2	
Less than one year	61
One to three years	79
More than 3 years	70
Dota 2 Virtual Item Purchase	
Yes	210
Expenses In the Past Year	
Less than Rp 1.000.000	65
Rp 1.000.000 - Rp 10.000.000	139
Rp 10.000.000 - Rp 20.000.000	5
More than Rp 20.000.000	1

This study received responses from respondents with the following criteria: male or female, long-playing Dota 2, have made transactions (purchasing items) and spending on buying items in the last one year, and focused on questionnaires compiled using the Google Form application. The distribution of questionnaires served to respondents where respondents were players of the Dota 2 game in Jakarta. The total number of respondents meeting the largest sample size of this research is 210 (number of indicators multiplied by 10).

The research data collected was then analyzed descriptively and quantitatively. Descriptive analysis was carried out using Microsoft Excel to determine the explanations of Perceived Value, Product Knowledge, Price, Attitude toward virtual items, and Purchase Intention. Quantitative analysis was done through PLS (Partial Least Square) method with SmartPLS 3.2.8 tool in determining the effects of Perceived Value, Price, and Purchase Intention to Purchase Decision.

Table 2. Results of the Questionnaire Variable Perceived Value

Indicator Code	Respondent's Answer						Total	Average	Std. Deviation
	Strongly Disagree	Disagree	Little Disagree	Quite Agree	Agree	Strongly Agree			
PV1	18	24	38	74	31	25	210	3.72	1.40
PV2	24	22	58	72	13	21	210	3.43	1.37
PV3	13	35	37	50	46	29	210	3.80	1.46
PV4	17	20	73	59	16	25	210	3.53	1.34
PV5	18	27	24	65	44	32	210	3.89	1.49
PV6	22	27	33	51	48	29	210	3.78	1.54
PV7	19	20	71	64	16	20	210	3.47	1.31
PV8	23	34	30	50	51	22	210	3.66	1.53
Total	**154**	**209**	**364**	**485**	**265**	**203**	**1680**	**3.66**	**1.43**
Percentage	**9.17%**	**12.44%**	**21.67%**	**28.87%**	**15.77%**	**12.08%**	**100.00%**		

The table above shows the result of the questionnaire in the Perceived Value (PV) variable. There are eight questions based on the data distribution, as 9.17% of respondents strongly disagree, 12.44% disagree, 21.67% disagree, 28.87 % quite agree, 15.77% agree, and 12.08% strongly agree. The results show that the average is

3.66 is the interpretation of the interval into the "Disagree" category. Then it proves that the Perceived Value in the scope of the sample is in a good category, with questions from PV5, the highest average value is 3.89 with the question point "Cosmetics Dota 2 that I want is proportional to the price I pay" the most answered quite agreeably according to the respondent.

Table 3. Results of the Questionnaire Variable Product Knowledge

Indicator Code	Respondent's Answer						Total	Average	Std. Deviation
	Strongly Disagree	Disagree	Little Disagree	Quite Agree	Agree	Strongly Agree			
PK1	21	33	29	61	30	36	210	3.73	1.56
PK2	17	20	73	59	16	25	210	3.53	1.34
PK3	20	30	32	68	34	26	210	3.69	1.47
PK4	14	29	39	54	46	28	210	3.82	1.44
PK5	19	41	34	48	44	24	210	3.61	1.51
PK6	18	24	38	74	31	25	210	3.72	1.40
PK7	24	22	38	53	49	24	210	3.73	1.50
PK8	13	35	37	50	46	29	210	3.80	1.46
Total	**146**	**234**	**320**	**467**	**296**	**217**	**1680**	**3.70**	**1.46**
Percentage	**8.69%**	**13.93%**	**19.05%**	**27.80%**	**17.62%**	**12.92%**	**100.00%**		

Table above shows that for the questionnaire statement in the Product Knowledge (PK) variable, there are eight questions, while based on the data distribution it shows that for the questionnaire statement in the Product Knowledge (PK) indicator variable, 8.69% of respondents strongly disagree, as 13.93% of respondents disagree, 19.05% of respondents disagree, 27.80% of respondents quite agree, 17.62% of respondents agree, and 12.92% of respondents strongly agree. The average in the product knowledge section here has a result of 3.70, which means that the interpretation of the data interval falls into the "Disagree" category. This proves that Product Knowledge has a sample scope that falls into the good category, with questions from PK4 having the highest average score of 3.82 with the question point "I feel satisfied when playing with the Dota 2 cosmetics I bought" based on the respondents' answers obtained. Many answered quite agree.

Table 4. Results of the Questionnaire Variable Price

Indicator Code	Respondent's Answer						Total	Average	Std. Deviation
	Strongly Disagree	Disagree	Little Disagree	Quite Agree	Agree	Strongly Agree			
P1	13	32	37	65	35	28	210	3.77	1.41
P2	20	30	32	68	34	26	210	3.69	1.47
P3	21	33	29	61	30	36	210	3.73	1.56
P4	23	34	30	50	51	22	210	3.66	1.53
P5	14	23	26	98	29	20	210	3.79	1.28
P6	30	28	33	48	42	29	210	3.62	1.61
P7	18	27	24	65	44	32	210	3.89	1.49
P8	16	34	32	53	45	30	210	3.80	1.50
Total	**155**	**241**	**243**	**508**	**310**	**223**	**1680**	**3.74**	**1.48**
Percentage	**9.23%**	**14.35%**	**14.46%**	**30.24%**	**18.45%**	**13.27%**	**100.00%**		

The table 4 shows that for the questionnaire statement in the Price (P) variable, there are eight questions, while based on the data distribution it shows that for the questionnaire statement in the Price (P) indicator variable, 9.23% of respondents strongly disagreed, as many as 14.35% respondents disagree, as many as 14.46% of respondents disagree, 30.24% of respondents quite agree, 18.45% of respondents agree, and 13.27% of respondents strongly agree. The average in the price section here has a result of 3.74 which means that the interpretation of the data interval falls into the "Disagree" category. This proves that Price has a sample scope that falls into the good category, with questions from P7 having the highest average value of 3.89 with the question point "The price of Dota 2 cosmetics given is in accordance with the appearance of the Dota 2 character that I received" based on the respondent's answer obtained many who answered quite agree.

Table 5. Results of the Variable Questionnaire Attitude Toward Virtual Items

Indicator Code	Respondent's Answer						Total	Average	Std. Deviation
	Strongly Disagree	Disagree	Little Disagree	Quite Agree	Agree	Strongly Agree			
AT1	18	30	30	64	44	24	210	3.75	1.45
AT2	21	36	33	58	41	21	210	3.60	1.48
AT3	18	31	38	53	40	30	210	3.74	1.50
AT4	11	36	34	58	52	19	210	3.77	1.37
AT5	20	30	32	68	34	26	210	3.69	1.47
AT6	13	31	40	51	42	33	210	3.84	1.47
AT7	18	24	38	74	31	25	210	3.72	1.40
AT8	18	27	24	65	44	32	210	3.89	1.49
AT9	18	31	38	53	40	30	210	3.74	1.50
AT10	21	36	33	58	41	21	210	3.60	1.48
Total	**176**	**312**	**340**	**602**	**409**	**261**	**2100**	**3.73**	**1.46**
Percentage	**10.48%**	**18.57%**	**20.24%**	**35.83%**	**24.35%**	**15.54%**	**100.00%**		

The table above 4.5 shows ten questionnaire statements in the attitude toward virtual items variable in the Dota 2 (AT). The data distribution shows that for the questionnaire statements in the attitude toward virtual items indicator variable in the game Dota 2 (AT), as many as 10.48% of respondents strongly disagree, 18.57% of respondents disagree, 20.24% of respondents disagree, 35.83% of respondents quite agree, 24.35% of respondents agree, and 15.54% of respondents strongly agree. The average attitude toward virtual items in the Dota 2 game has a result of 3.73, which means that the data interval interpretation falls into the "Disagree" category. This proves that attitude toward virtual items in the Dota 2 game has a sample scope that falls into the good category, with questions from AT8 having the highest average score of 3.89 with the question point "I like the service in the form of Dota 2 blog to help me find out. about the price of cosmetics Dota 2" based on the answers of the respondents, many who answered quite agree.

Table 6. Results of the Questionnaire Variable Purchase Intention

Indicator Code	Respondent's Answer						Total	Average	Std. Deviation
	Strongly Disagree	Disagree	Little Disagree	Quite Agree	Agree	Strongly Agree			
PI1	22	27	33	51	48	29	210	3.78	1.54
PI2	16	22	24	105	32	11	210	3.70	1.23
PI3	21	33	29	61	30	36	210	3.73	1.56
PI4	21	24	35	62	41	27	210	3.76	1.48
PI5	14	29	39	54	46	28	210	3.82	1.44
PI6	18	39	31	47	49	26	210	3.70	1.52
PI7	12	17	36	99	30	16	210	3.79	1.19
PI8	18	27	24	65	44	32	210	3.89	1.49
Total	**142**	**218**	**251**	**544**	**320**	**205**	**1680**	**3.77**	**1.43**
Percentage	**8.45%**	**12.98%**	**14.94%**	**32.38%**	**19.05%**	**12.20%**	**100.00%**		

The table above shows that for the questionnaire statement in the Purchase Intention (PI) variable, there are eight questions, while based on the data distribution it shows that for the questionnaire statement in the Purchase Intention (PI) indicator variable, 8.45% of respondents strongly disagree, as many as 12, 98% disagree, 14.94% disagree, 32.38% quite agree, 19.05% agree and 12.20% strongly agree. The average in the purchase intention section here has a result of 3.77, which means that the interpretation of the data interval falls into the "Disagree" category. This proves that Purchase Intention has a sample scope that falls into the good category, with questions from PI8 having the highest average score of 3.89 with the question point "I intend to find out how to buy the Dota 2 cosmetics before buying it" based on the respondent's answer obtained many who answered agree.

Validity Test

a. Convergent Validity

Tests were conducted on the outer model using the Confirmatory Factor Analysis (CFA) technique. It is applied to determine each indicator's validity of each indicator and reliability. The validity criteria used for this research are based on the reflexive indicator model tested using convergent validity and discriminant validity. Convergent validity indicators are met and sufficient when the value of the loading factor is greater than 0.7 but was at 0.5 to 0.6 during the initial stage, indicated by the (AVE) Average Variance Extracted value over 0.50. Composite Reliability and Cronbach's Alpha are used to assess the construct's reliability and are deemed reliable if the value is greater than 0.70 (Imam Ghozali, 2014).

Table 7. *Inter-Construct Value Model and Dimensions of Purchase Intention Research Model Using SmartPLS 3.2.8*

Purchase Intention		***Perceived Value***		***Product Knowledge***		***Price***		***Attitude Toward***	
PI.1	0.772	PV.1	0.770	PK.1	0.799	P.1	0.717	AT.1	0.797
PI.2	0.763	PV.2	0.785	PK.2	0.732	P.2	0.779	AT.2	0.807
PI.3	0.801	PV.3	0.799	PK.3	0.798	P.3	0.802	AT.3	0.804

PI.4	0.781	PV.4	0.732	PK.4	0.781	P.4	0.770	AT.4	0.797
PI.5	0.768	PV.5	0.748	PK.5	0.787	P.5	0.703	AT.5	0.778
PI.6	0.760	PV.6	0.777	PK.6	0.758	P.6	0.823	AT.6	0.746
PI.7	0.761	PV.7	0.707	PK.7	0.768	P.7	0.748	AT.7	0.756
PI.8	0.751	PV.8	0.764	PK.8	0.801	P.8	0.762	AT.8	0.748
• Purchase Intention 0.898 • Perceived Value → Purchase Intention 0.198 • Product Knowledge→ Purchase Intention 0.282 • Price → Purchase Intention 0.310 • Attitude Toward → Purchase Intention 0.189								AT.9 AT.10	0.807 0.809

It is shown that the total value for each loading factor indicator in the variable is more than 0.7. This proves that all indicators of the variable Perceived Value (PV), Price (P), Purchase Intention (PI), and Purchase Decision (PD) in this study using valid or convergent validity have been met. The results in the table above are the results of outer loading for each indicator owned by each latent variable obtained from data processing using Smart PLS.

Table 8. Cross Loading Value of Each Variable and Constructure of the Research Model

Variable	***Perceived Value***	***Product Knowledge***	***Price***	***Attitude Toward***	***Purchase Intention***
PV.1	0.770	0.757	0.685	0.751	0.680
PV.2	0.785	0.661	0.663	0.656	0.660
PV.3	0.793	0.789	0.729	0.747	0.726
PV.4	0.732	0.735	0.644	0.641	0.627
PV.5	0.748	0.652	0.719	0.723	0.734
PV.6	0.777	0.696	0.690	0.706	0.768
PV.7	0.707	0.603	0.595	0.592	0.577
PV.8	0.764	0.679	0.770	0.668	0.716
PK.1	0.684	0.799	0.798	0.710	0.798
PK.2	0.708	0.732	0.633	0.637	0.627
PK.3	0.703	0.798	0.778	0.770	0.700
PK.4	0.686	0.781	0.702	0.687	0.762
PK.5	0.697	0.787	0.715	0.718	0.713
PK.6	0.774	0.758	0.680	0.744	0.684
PK.7	0.677	0.768	0.722	0.679	0.711

PK.8	0.795	0.801	0.725	0.743	0.729
P.1	0.646	0.655	0.717	0.650	0.640
P.2	0.702	0.797	0.779	0.772	0.702
P.3	0.670	0.787	0.802	0.707	0.785
P.4	0.766	0.683	0.770	0.666	0.716
P.5	0.601	0.604	0.703	0.611	0.585
P.6	0.742	0.753	0.823	0.758	0.781
P.7	0.743	0.677	0.748	0.754	0.732
P.8	0.661	0.684	0.762	0.701	0.674
AT.1	0.649	0.645	0.677	0.737	0.696
AT.2	0.694	0.704	0.742	0.807	0.736
AT.3	0.664	0.694	0.692	0.804	0.686
AT.4	0.694	0.702	0.671	0.737	0.681
AT.5	0.709	0.796	0.778	0.778	0.703
AT.6	0.686	0.676	0.694	0.746	0.677
AT.7	0.782	0.760	0.679	0.756	0.702
AT.8	0.749	0.681	0.744	0.748	0.729
AT.9	0.669	0.696	0.696	0.807	0.685
AT.10	0.696	0.708	0.743	0.809	0.739
PI.1	0.775	0.699	0.692	0.710	0.772
PI.2	0.682	0.664	0.662	0.668	0.763
PI.3	0.683	0.796	0.799	0,713	0.801
PI.4	0.679	0.724	0.723	0.717	0.781
PI.5	0.695	0.779	0.702	0.685	0.768
PI.6	0.688	0.694	0.699	0.704	0.760
PI.7	0.634	0.644	0.668	0.670	0.761
PI.8	0.752	0.668	0.735	0.737	0.751

Table 8 and Figure 2 show that all loading factor values exist for each indication in the variable with a value greater than 0.7. This proves that all variable indicators of perceived value (PV), product knowledge (PK), price (P), attitude toward virtual items in the game Dota 2 (AT) and purchase intention (PI) used in this study are valid and meet convergent validity. The table above is the result of outer loading on the indicators for each latent variable derived from data processing using SmartPLS. Next, test the discriminant validity by checking

the AVE (Average Variance Extracted) value. AVE value is good if it has a value of more than 0.50 (Imam Ghozali, 2014). Here are the AVE values:

Table 9. AVE Research Model

Variable	AVE Value
Perceived Value (PV)	0.578
Product Knowledge (PK)	0.606
Price (P)	0.584
Attitude Toward Virtual Items	0.598
Purchase Intention (PI)	0.593

This research model's AVE value is shown above by the table. Can be displayed AVE the value of all research variables and research dimensions is above 0.5; therefore, the AVE value on the discriminant validity is sufficient and can carry out the next test. The Discriminant Validity test was successful with the Convergent Validity test so that the Valid research model could be carried out.

Reliability Test

Reliability test is a test aimed at determining how reliant and trusted a measuring instrument is. Reliable questionnaire if someone's answer to the question is consistent from time to time (Ghazali, 2014). Based on the PLS method, the indicator reliability in this study is determined from the composite reliability and Cronbach's alpha values for each indicator block. To assess the model in another manner, the latent variables' reliability could be assessed using the indicator block of the composite reliability and Cronbach alpha. The construct is deemed reliable within the first stage if the value of the composite reliability is greater than 0.70 (Imam Ghozali, 2014). Below are the outputs of the outer composite reliability model.

Table 10. Value of Composite Reliability of the Research Model

Variabel	*Composite Reliability*	Syarat	*Cronbach's Alpha*	Syarat	Keterangan
Perceived Value (PV)	0.916	>0,7	0.895	>0,6	**Reliabel**
Product Knowledge (PK)	0.925	>0,7	0.907	>0,6	**Reliabel**
Price (P)	0.918	>0,7	0.898	>0,6	**Reliabel**
Attitude Toward Virtual Items di Permainan Dota 2 *(AT)*	0.937	>0,7	0.925	>0,6	**Reliabel**
Purchase Intention (PI)	0.921	>0,7	0.902	>0,6	**Reliabel**

Table 10 shows the research model's composite reliability values, whereby all values for each composite reliability are greater than 0.7, with Perceived Value (PV) being the lowest at 0.916. The highest value of 0.937 for attitude toward virtual items in the game Dota 2 (AT) concludes how the research model has fulfilled the composite reliability value. Furthermore, as shown above, the study model's Cronbach's alpha value for all variables is shown to be greater than 0.6, with Perceived Value having the lowest value of 0.895 and the highest value of 0.925 from attitude toward virtual items in the game Dota 2 (AT). This concludes that the Cronbach's alpha value has been fulfilled, as well as the Composite Reliability with Cronbach's Alpha. Hence, the model is shown to be reliable and can be depended on as a measuring tool**.**

Table 11. Path Coefficient, T-Statistics, and P-Values

Each construct's relationship	***Original Sample (O)***	***Sample Mean (M)***	***Standard Deviation (STDEV)***	***T Statistics (|O/STDEV|)***	***P Values***
Direct Impact					
Perceived Value -> Purchase Intention	0.198	0.201	0.066	2.999	0.003
Product Knowledge -> Purchase Intention	0.282	0.281	0.073	3.864	0.000
Price -> Purchase Intention	0.310	0.311	0.058	5.357	0.002
Attitude Toward Virtual Items in Dota 2 -> *Purchase Intention*	0.189	0.186	0.069	2.733	0.007

There is a Positive Effect of Perceived Value (PV) on Purchase Intention (PI)

From the table above, namely table 4:12, the t-statistics value (2.999) is higher than the t-table value (1.972), with p-values (0.003) being less than α (0.05), meaning that H1 is accepted, namely the variable Perceived Value (PV) is effective toward Purchase Intention (PI). It is known that the coefficient value is positive at 0.198, where Perceived Value (PV) affected Purchase Intention (PI) of 19%; hence, H1 is accepted. Price (P) influences the Purchase Intention (PI). For H2, the t-statistics value is 4.26, which is more than the t-table value of 1.976, and the p-values are 0.000, which is less than α = 0.05, meaning that H2 is accepted (P) variable influences the Player Purchase Intention variable (PI). The coefficient value is positive, equal to 0.266, meaning that the Price (P) variable influences the Purchase Intention (PI) variable by 26.6%. The H2 hypothesis mentions Price (P) influences the Purchase Intention (PI) accepted. Dama (2016) explained in his journal that price significantly influenced Purchase Intention. Similarly, Naingolan and Heryenzus (2018) discovered how the buying interest is significantly and positively affected by price (Purchase Intention).

There is a Positive Effect of Product Knowledge (PK) on Purchase Intention (PI)

From the table above, namely table 4:12, the t-statistics value is 3.864, larger than the t-table value (1.972) and p-values (0.000) being less than α (0.05), then H2 is accepted; namely, Product Knowledge (PK) affects the Player Purchase Intention (PI). The positive coefficient value being 0.282 shows how Purchase Intention (PI) is affected by Product Knowledge (PK) by 28%, and H2 is approved.

There is a Positive Effect of Price (P) on Purchase Intention (PI)

From the table above, namely table 4:12, when the t-statistics value of 5.375 is larger than the t-table value (1.972), and p-values are 0.002 and less than α (0.05), H3 is acceptable, namely Price (P) affects Purchase Intention (PI). The coefficient value of this study is positive and equals 0.310, which means that Price (P) positively affected Purchase Intention (PI) by 31%, showing that H3 is accepted.

There is a Positive Effect on Attitude Toward Virtual Items in the Dota 2 (AT) Game on Purchase Intention (PI)

From the table above, namely table 4:12, t-statistics value is 2.733 more than the t-table value (1.972), and p-values (0.007) is less than α (0.05) means H4 is approved, namely attitude toward virtual items in the Dota 2 game. (AT) affects Purchase Intention (PI). The positive coefficient value of 0.189 indicates how Purchase Intention (PI) is affected by attitude toward virtual items in Dota 2 (AT) by 19% and shows that H4 is accepted.

Conclusion

At this stage, it can be concluded that the items in the Dota 2 game are still in demand, especially for Dota 2 players, especially in Jakarta. These items are only cosmetic (beautify the appearance of the character) and have no more effect that supports the opportunity for players to win the game, and the price of these items is relatively high, but the interest in buying these items is quite high. In conclusion, the effects of perceived value and purchase intention, product knowledge on purchase intention, price on purchase intention, and attention toward virtual items in Dota 2 game on purchase intention were addressed.

Research Limitation and Future Research

There are certain limitations within this research. The first limitation is how the respondents were only Dota 2 gamers in Jakarta. Second, the research period was short December 2020- January 2021. Therefore, further studies can increase the target of respondents covering national coverage in Jakarta and a more extended research period.

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