THE INFLUENCE OF TELEPRESENCE, SOCIAL PRESENCE, AND SOCIAL VALUE ON REPURCHASE INTENTION OF ONLINE VIRTUAL GAME ITEMS

Sholahudin Aditya Al-Ayyubi, Lilik Noor Yuliati[*)]

Departement of Family and Consumer Sciences, Faculty of Human Ecology,
IPB University, Dramaga, Bogor 16680, Indonesia

*)Email: lilikny@apps.ipb.ac.id

Abstract

The emergence of online learning during the COVID-19 pandemic has led to an increase in the use of gadgets by students. The increasingly proficient use of gadgets for teenagers is not only used for learning activities but also for playing online games. This study aims to identify consumer characteristics and influences, telepresence, social presence, social value, and repurchase intention of online game virtual items in adolescents and analyze the relationship between consumer characteristics and repurchase intention of online game virtual items in adolescents. This study involved 239 adolescents who were dominated by males and were in the late adolescent stage with an age range between 19-24 years. The last education of the majority of respondents is high school graduates, and the monthly allowance of most respondents is above Rp1.000.000. Telepresence, social presence, and social value variables are in the medium category, which means they are pretty good. However, the repurchase intention variable is in the low category, meaning the interest in repurchasing online game items is relatively low. Based on the influence test, it can be concluded that telepresence and social value variable has significant effect on repurchase intention.

Keywords: adolescents, repurchase intention, social presence, social value, telepresence

PENGARUH TELEPRESENCE, SOCIAL PRESENCE, DAN SOCIAL VALUE TERHADAP REPURCHASE INTENTION ITEM VIRTUAL GAME ONLINE

Abstrak

Munculnya pembelajaran daring selama pandemi COVID-19 menimbulkan peningkatan penggunaan gadget oleh para pelajar. Penggunaan gadget yang semakin mahir bagi remaja tidak hanya digunakan untuk kegiatan pembelajarn tetapi juga untuk bermain game online. Penelitian ini bertujuan untuk mengidentifikasi karakteristik dan pengaruh konsumen, *telepresence*, *social presence*, dan *social value*, dan repurchase intention item virtual game online pada remaja serta menganalisis hubungan karakteristik konsumen dengan *repurchase intention* item virtual game online pada remaja. Penelitian ini melibatkan 239 remaja yang didominasi oleh laki-laki dan berada pada tahap remaja akhir dengan rentang usia antara 19-24 tahun. Pendidikan terakhir mayoritas responden adalah tamat SMA dan uang saku setiap bulan mayoritas responden > Rp 1.000.000. Variabel *telepresence*, *social presence*, dan *social value* berada pada kategori sedang yang artinya cukup baik. Akan tetapi, variabel *repurchase intention* berada pada kategori rendah yang artinya minat untuk membeli kembali item game online cukup rendah. Berdasarkan uji pengaruh, dapat disimpulkan bahwa variabel *telepresence* dan social value berpengaruh signifikan terhadap *repurchase intention*.

Kata kunci: kehadiran sosial, niat beli ulang, nilai sosial, remaja, telepresence

INTRODUCTION

The emergence of online learning during the COVID-19 pandemic has led to an increase in gadget usage among students. This has made the internet an essential part of societal activities, particularly for teenagers, resulting in online addiction (Maharani et al., 2022). However, during the online learning process, teenagers' growing proficiency in using gadgets is not only for educational activities but also for playing online games.

Online games are games that can be played by connecting computers and smartphones to the internet. The ease of internet access has made online games increasingly popular among the public. Online games serve as entertainment media for the public during their leisure time and can relieve stress, train motor nerves, enhance social skills, and improve problem-solving abilities (Suryanto & Kadarisman, 2015). Additionally, online games provide challenges to be completed, causing individuals to play without regard for time to achieve satisfaction from completing these challenges. This leads individuals who play online games to become addicted, rather than just entertaining themselves.

According to a report by We Are Social, Indonesia ranks third in the world for the number of online game players. The report notes that as of January 2022, 94.5 percent of internet users in Indonesia play online games. Online game addiction can occur across various groups, including children, teenagers, and even adults. Furthermore, online gaming has now become an officially recognized sport. However, teenagers are considered to use online games more frequently and are more vulnerable to it than adults. Teenagers' interest in online games is substantial, and if uncontrolled, it can be detrimental. Online game addiction can lead teenagers to purchase virtual items in online games to satisfy themselves. These purchases are made by all online game users from various groups, but are dominated by teenagers (Yulius, 2017).

Virtual items are products or services whose purchase and usage are limited to specific online environments (Cha, 2011). This purchasing occurs when teenagers have developed a liking for the online game they play, leading them to spend on it. Generally, players buy virtual goods because they perceive benefits that satisfy them, despite the items being virtual or non-physical (Putra & Atmaja, 2014). The perceived need is a response from the consumer's evaluation of the expected benefits from the purchase and use of the product. Psychological needs create expressive or hedonic needs such as satisfaction, prestige, and emotions that arise to meet social status and aesthetic demands (Sumarwan, 2014). The evaluation process begins before the purchase, continues while using the goods or services, and after the purchase. After evaluating, consumers feel either satisfied or dissatisfied with the product or service. The final stage of the decision-making process is the consumer's satisfaction response, which encourages repeat purchases and consumption of the product or service (Sumarwan, 2014). The behavior of purchasing virtual items is driven by several factors, leading teenagers to make repeat purchases.

The large number of online game players among teenagers leads to competition to win, prompting many to buy virtual items. The feeling of competition and rivalry also motivates online game players to purchase virtual items. Individuals intending to buy typically select items that are desirable and suitable before making a purchase decision (Saputri, 2016). Essentially, the decision to purchase is highly complex and involves a lengthy process, influenced by several factors before teenagers decide to buy.

According to Pelet et al. (2017), telepresence is a subjective feeling experienced by individuals immersed in a virtual environment. Qiu and Benbasat (2005) describe telepresence as the sensation of being present in a game-generated environment. Telepresence can be considered the feeling of realistically being in a virtual world. According to Animesh et al. (2011), the sense of togetherness with others in a virtual game world is termed social presence. This feeling encourages gamers to play together. Social presence can be experienced at various levels, ranging from merely sensing the presence of others to deeper emotional involvement, and eventually reaching behavioral involvement with mutual social interactions (Cairns & Hudson, 2014). Ho and Wu (2012) identified two determinants influencing the intention to purchase virtual goods through social aspects: social self-image expression and social relationship support. One aspect of social value is social self-image expression, which refers to the ability of virtual items to enhance an individual's image in the eyes of others.

The following are previous studies used as references. The interest in purchasing virtual game items has been widely researched, such as the study by Patricia and Sahetapy (2021) on the influence of telepresence and social presence on the purchase intention of virtual items in the battle royal game PUBG and the study by Febrianto and Artanti (2019) on the effect of consumption values on the intention to purchase virtual hero customization items. This research aims to identify consumer characteristics, telepresence, social presence, social value, and repurchase intention of virtual game items among teenagers; analyze the relationship between consumer characteristics and repurchase intention of virtual game items among teenagers; and

analyze the influence of telepresence, social presence, and social value on the repurchase intention of virtual game items among teenagers.

While there is extensive research on the general effects of online game addiction and virtual item purchasing, there is a lack of studies focusing specifically on the repurchase intentions of virtual items among teenagers, particularly in the context of social and psychological factors. This study aims to fill this gap by exploring how telepresence, social presence, and social value influence teenagers' intentions to repurchase virtual items. It will provide new insights into the behavioral patterns of teenage gamers in the Indonesian context, which has not been extensively covered in existing literature. The findings of this research will be beneficial for educators, parents, and policymakers to understand the underlying factors driving online game addiction and virtual item purchases among teenagers. Additionally, it will help game developers and marketers tailor their strategies to promote responsible gaming and potentially develop features that can mitigate addiction while enhancing user satisfaction and engagement.

METHOD

This study employs an explanatory research design, which aims to explain the relationships between research variables through hypothesis testing. The chosen research location encompasses all provinces in Indonesia. The study was conducted from June 2023 to September 2023. Primary data were collected through online questionnaires filled out by respondents. The questionnaires were distributed via Google Forms through social media platforms. They served as tools to collect the necessary data for the study, including telepresence, social presence, social value, and repurchase intention variables.

The sampling method used in this study is nonprobability sampling. The research population consists of adolescents aged 12-24 years according to the World Health Organization (2018) across Indonesia. The sample includes teenagers aged 12 to 24 who have played online games in the past six months and have purchased virtual game items. The sampling technique applied is purposive sampling, which involves selecting respondents based on specific criteria (Sugiyono, 2019). The initial total number of respondents in this study was 282, and after data screening, 239 valid respondents were obtained.

The measurement of the telepresence variable used a questionnaire modified and adapted from Papagiannidis et al. (2013). The social presence variable was measured using a questionnaire developed and modified from Tu and McIsaac (2002) and Leong (2011). The social value variable was measured using a questionnaire modified and adapted from Ho and Wu (2012) and Febrianto and Artanti (2019). The repurchase intention variable was measured using a questionnaire modified and developed from Turel et al. (2011) and Durianto and Sugiarto (2004).

The analysis used in this study includes descriptive analysis, which covers frequency distribution, minimum value, maximum value, mean, and standard deviation. Data processing and analysis were conducted using Microsoft Excel, Statistical Package for Social Science (SPSS), and LISREL. Descriptive analysis and correlation tests were processed using SPSS. For Structural Equation Modeling (SEM) analysis, the overall measurement model fit and the structural model fit were tested.

RESULTS

Consumer Characteristics

The consumer characteristics analyzed in this study include gender, age, last completed education level, and monthly allowance. A total of 239 respondents participated in this study. All respondents were aged between 12-24 years, had played online games within the last six months, and had purchased online game items. The findings reveal significant insights into the demographic profile of the consumers. The majority of the respondents were male, constituting 79,5 percent of the sample, indicating a higher prevalence of online gaming and virtual item purchasing among male adolescents and young adults. Age distribution showed that most respondents were in the late adolescence stage, specifically those aged 18-24 years, making up 88,4 percent of the sample. This suggests that older teenagers and young adults are more actively involved in online gaming activities and the associated purchasing behaviors compared to younger adolescents.

Regarding education, 62,8 percent of respondents had completed high school, highlighting that the majority of online game players who engage in purchasing virtual items have a high school level education. This educational background could be reflective of their stage in life where they have disposable income or access to funds for discretionary spending on online games. Monthly allowance data showed that 47,7 percent of the respondents had a monthly allowance of more than Rp 1.000.001. This indicates that nearly half of the participants had relatively high financial resources at their disposal, enabling them to spend on virtual game

items. The financial capability of these teenagers and young adults plays a crucial role in their purchasing decisions and behavior in the context of online games. This detailed demographic analysis provides a comprehensive understanding of the consumer base engaged in online gaming and virtual item purchasing. It highlights the importance of considering these characteristics when developing strategies for addressing online gaming addiction and promoting responsible gaming practices among adolescents and young adults. Additionally, it underscores the need for targeted interventions and policies that cater to the specific needs and behaviors of this demographic group (Table 1).

Table 1 Consumer characteristics (n=239)

Variables	Total (n)	Percentage (%)
Gender		
Male	190	79,5
Female	49	20,5
Age		
Early adolescence (12-15 years)	4	1,6
Middle adolescence (16-18 years)	24	10,0
Late adolescence (19-24 years)	211	88,4
Last Education		
Elementary school graduate	1	0,4
Junior high school graduate	5	2,1
High school graduate	150	62,8
Bachelor's degree	83	34,7
Pocket Money per Month / Income		
<Rp 100,000	21	8,8
Rp 100,001 - Rp 500,000	47	19,7
Rp 500,001 - Rp 1,000,000	57	23,8
>Rp 1,000,001	114	47,7

Variable Description

The results of the study, which explain the distribution of respondent data based on the variables telepresence, social presence, social value, and repurchase intention, are presented in Table 2. The findings indicate that the highest percentage for the telepresence variable falls in the medium category, with an average index of 73,07. This suggests that the level of telepresence is adequate to provide consumers with a moderate reason for engagement in the online gaming environment. Similarly, the highest percentage for the social presence variable also falls in the medium category (64%) with an average index of 73,56. This indicates that social presence is sufficiently significant for consumers, providing a moderate reason for their engagement in online gaming activities.

For the social value variable, the highest percentage is in the medium category (48,1%) with an average index of 66,99. This implies that social value moderately influences consumer behavior, as it falls within the medium category. In contrast, the highest percentage for the repurchase intention variable is in the low category (59%) with an average index of 56,12. This finding suggests that consumers have a relatively low inclination to repurchase virtual game items, as it is categorized as low.

These results provide valuable insights into the factors influencing consumer behavior in the context of online gaming. The medium levels of telepresence, social presence, and social value suggest that these factors moderately contribute to consumers' online gaming experiences and their decision to purchase virtual items. However, the low level of repurchase intention indicates that consumers are not strongly motivated to make repeat purchases of virtual game items. Understanding these variable distributions is crucial for developing strategies to enhance consumer engagement and satisfaction in online gaming environments. It highlights the need to address the aspects of telepresence, social presence, and social value to better cater to consumer needs and potentially increase their repurchase intention.

Table 2 Categories of research variables

Category	Telepresence		Social Presence		Social Value		Repurchase Intention	
	n	%	n	%	n	%	n	%
Low (≤60)	18	7,5	22	9,2	73	30,5	141	59
Medium (60-79)	152	63,6	153	64	115	48,1	75	31,4
High (≥80)	69	28,9	64	26,8	51	21,4	23	9,6

Table 2 Categories of research variables

Min-Max	36–100	44–100	7–100	0–100
Mean±SD	73,07±11,86	73,56±12,54	66,99±16,98	56,12 ± 17,70

Correlation Test

The correlation test conducted in this study aimed to explore the relationship between consumer characteristics, including gender, age, last completed education level, and monthly allowance, with the variable of repurchase intention. The results from the analysis indicate that there is no statistically significant relationship between these consumer characteristics and repurchase intention, as evidenced by the absence of p-values below 0,05. These findings, detailed in Table 3, suggest that factors such as gender, age, education level, and financial allowance do not significantly influence consumers' intentions to make repeat purchases of virtual game items in the online gaming context. This highlights the need for further investigation into other potential factors that may affect repurchase intentions among online gamers. Understanding these correlations is crucial for refining strategies aimed at enhancing consumer engagement and loyalty in online gaming environments.

Table 3 Relationship between consumer characteristics and repurchase intention variables

Variable	Consumer Characteristics			
	JK	**U**	**PDT**	**USPB**
Repurchase Intention	0,775	0,703	0,239	0,423

Notes: JK=gender, U=age, PDT=last education, USPB=monthly allowance

Structural Equation Modeling (SEM) Analysis

In this study, Structural Equation Modeling–Linear Structural Relationship (SEM-LISREL) using LISREL software was employed to examine the complex interrelationships between variables. The primary objective was to assess the overall model fit using key goodness of fit indicators: RMR (Root Mean Square Residual), RMSEA (Root Mean Square Error of Approximation), GFI (Goodness of Fit Index), AGFI (Adjusted Goodness of Fit Index), IFI (Incremental Fit Index), NFI (Normed Fit Index), and CFI (Comparative Fit Index). These indicators were crucial for evaluating how well the observed variables explain the latent variables in the model. Detailed results from the model fit test are provided in Table 4.

The findings from the model fit assessment indicate a favorable fit, suggesting that the SEM model utilized in this research is appropriate for the data. Specifically, the RMSEA, which assesses the discrepancy between the observed data and the model's predicted values, yielded a value of 0.071 in this study. With a cutoff criterion of ≤ 0.08 indicating a good fit, this result indicates that the model adequately fits the data or can be deemed as a good fit. These outcomes underscore the reliability of the SEM approach in understanding the relationships between variables in the context of online gaming behavior.

Table 4 Results of the model fit test

Goodness of Fit (GoF)	Cut–off–value	Result	Notes
Root Mean Square Residual (RMR)	RMR ≤ 0,1	0,034	Good fit
Root Mean Square Error of Approximation (RMSEA)	RMSEA ≤ 0,08	0,80	Good fit
Goodness of Fit Index (GFI)	0,80 ≤ GFI ≤ 0,90	0,071	Good fit
Adjusted Goodness of Fit Index (AGFI)	0 < AGFI < 1	0,76	Good fit
Comparative Fit Index (CFI)	0 < CFI < 1 ; CFI ≥ 0,9	0,95	Good fit
Incremental Fit Index (IFI)	0 < IFI < 1 ; IFI ≥ 0,9	0,91	Good fit
Normed Fit Index (NFI)	0 < NFI <1 ; NFI ≥ 0,9	0,95	Good fit

Meanwhile, the results of the measurement model fit test are depicted in Figure 1. According to Figure 1, the assessment of the measurement model fit indicates that all indicators satisfy the validity criteria, with standardized loading factors ≥ 0,5. This outcome follows a rigorous process of eliminating indicators that did not meet the loading factor cutoff. Specifically, indicators such as C1, C2, C3, C4, C5, C6, GV1, OC1, OC2, SSIE1, SSIE2, SSIE3, and SSIE5 were excluded from the analysis. This ensures that the remaining indicators reliably represent their respective constructs within the SEM framework, underscoring the

robustness of the measurement model in capturing the relationships between variables in the context of online gaming behavior.
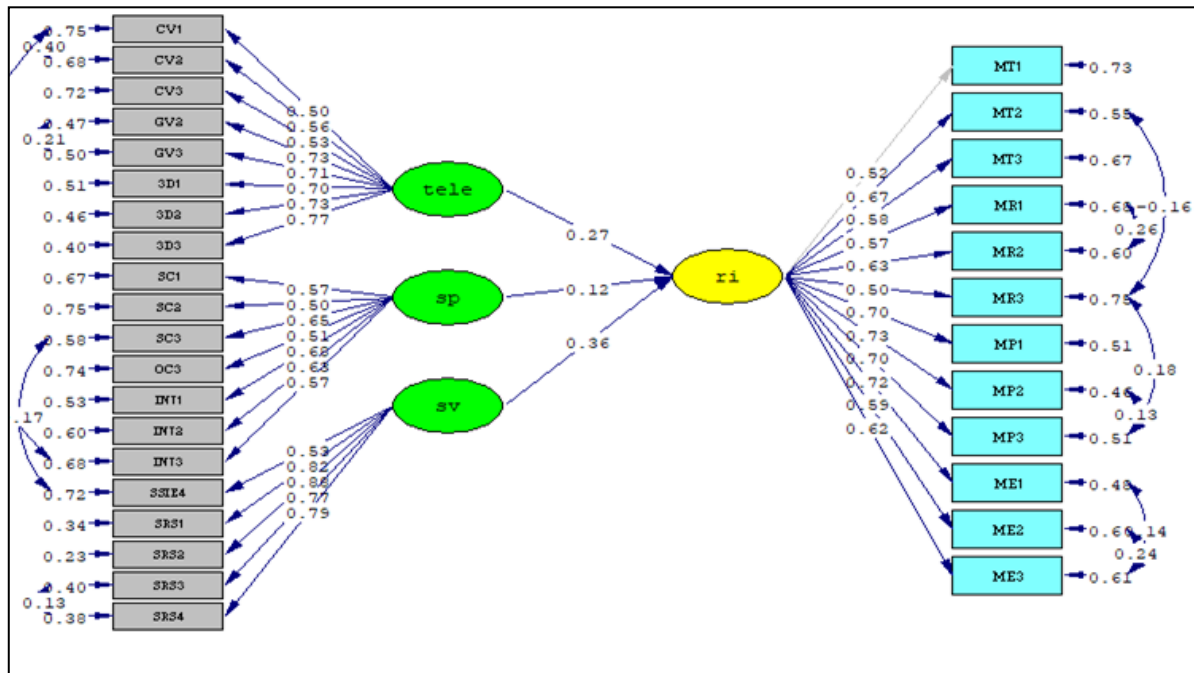

Figure 1 Measurement model fit test

Next, to assess the values of Construct Reliability (CR) and Average Variance Extracted (AVE) for the variables in this study, they are presented in Table 5. Construct Reliability (CR) is considered good if its value is $\geq 0{,}7$, while Average Variance Extracted (AVE) is considered adequate if its value is ≥ 0.5. Based on Table 5, all variables exhibit CR values $\geq 0{,}7$, indicating high reliability across the board.

From the findings in Table 5, the AVE for the social value variable is $\geq 0{,}5$, meeting the criterion for acceptable variance extraction. However, the AVE values for the telepresence, social presence, and repurchase intention variables are $\leq 0{,}5$. According to Fornell and Larcker (1981), AVE values $\leq 0{,}5$ can be acceptable if the CR values are $\geq 0{,}7$, which is the case here. This indicates that while the AVE values for some variables are slightly below the recommended threshold, their reliability (CR $\geq 0{,}7$) supports their validity within the measurement model.

Table 5 Construct reliability (CR) and average variance extract (AVE) values

Latent Variable	CR	AVE	Total Indicators
Telepresence	0,85	0,43	15
Social Presence	0,78	0,34	9
Social Value	0,83	0,51	9
Repurchase Intention	0,88	0,39	12

The structural model fit test was performed to determine whether the relationships between variables have significant effects according to the research hypotheses. The assessment of structural model fit relies on the significance level set at 0,05, indicating a 95% confidence level, with a minimum t-value threshold of 1,96 for statistical significance. Detailed results of the structural model test conducted in this study are provided in Table 6, showcasing the outcomes of these analyses.

Table 6 Structural model fit test results

Path	Path coefficient	t-value	Conclusion	Notes
Telepresence → Repurchase Intention	0,27	2,70	Significant	H1 accepted
Social Presence → Repurchase Intention	0,12	1,20	Not Significant	H2 rejected
Social Value → Repurchase Intention	0,36	4,18	Significant	H3 accepted

DISCUSSION

The research findings indicate that there is no significant relationship between consumer characteristics and repurchase intention. The consumer characteristics examined in this study include gender, age, last completed education level, and monthly allowance. Gender, with a correlation coefficient of 0,775, showed no significant influence on repurchase intention, suggesting that there is no distinct difference between males and females in their propensity to repurchase online game items. This contradicts Ha and Lee's (2019) study, which posited that males tend to view virtual game items as valuable investments, thereby leading to more frequent repurchases. Similarly, age among consumer characteristics did not exhibit a significant relationship with repurchase intention (correlation coefficient = 0,703), indicating that age does not significantly influence the likelihood of repurchasing virtual game items.

In contrast, the study found that telepresence significantly and positively affects repurchase intention. This suggests that a heightened sense of presence in the virtual online game world correlates with an increased inclination to repurchase virtual items. This finding aligns with Patricia and Sahetapy's (2021) research, which highlighted the influence of telepresence on the purchase intention of virtual game items. Adolescents who experience high levels of telepresence while playing online games are more inclined to repurchase virtual game items (Hussein et al., 2010).

Moreover, the study revealed that social presence does not significantly influence repurchase intention. This finding diverges from Lu et al.'s (2016) and Liu et al.'s (2020) studies, which suggested that stronger social presence enhances purchase intentions for virtual game items. Similarly, social value was found to significantly and positively affect repurchase intention. This finding supports Febrianto and Artanti's (2019) research, indicating that social value plays a significant role in the intention to purchase virtual game items. The use of virtual game items, such as in-game characters chosen by respondents, attracts attention from other players, which can lead to compliments or invitations to become in-game friends. This finding also resonates with Alfarisi et al.'s (2022) study, suggesting that gamers believe virtual game items can help them make new friends.

This study contributes to existing theories by demonstrating significant influences of telepresence and social value on repurchase intention, providing insights into consumer behavior theories related to the evaluation of products and services that stimulate repeat purchases among consumers. The lack of significant influence of social presence on repurchase intention may stem from virtual products or services not leaving a favorable impression, thus failing to stimulate repeat purchase intentions.

Educational efforts are crucial in raising awareness about the risks of excessive online gaming and the importance of selecting games wisely, especially amidst the prevalence of online gambling disguised as online games. Additionally, educating consumers, particularly adolescents, to avoid excessive purchases of virtual game items and to exercise caution in online transactions is essential. Impulsive and excessive purchases of virtual game items can lead to consumeristic behaviors that are detrimental to their well-being.

This study holds significant theoretical implications for understanding and managing consumer behavior in online gaming environments. The findings enrich theoretical frameworks that elucidate how immersive experiences and social interactions influence consumer decisions, particularly regarding the repurchase of virtual items in online games. Emphasizing telepresence underscores the nature of experiential consumption in online gaming. Understanding how adolescents engage in virtual environments and develop attachments to virtual items provides insights into experiential consumption patterns in digital contexts. This study also confirms that virtual items serve not only as functional assets but also as symbols of social status and identity within gaming communities. This advances theories on social influence and consumer identity in digital environments, highlighting the importance of social factors in virtual consumption behavior.

Practically, the research findings have significant managerial implications for game developers, marketers, and policymakers. Developers and marketers can utilize insights from this study to tailor marketing strategies that enhance consumer engagement and loyalty. By emphasizing the social value of virtual items and fostering telepresence-inducing environments, developers can stimulate repurchase intentions among players. Consumer education is also crucial in promoting responsible gaming practices and informed decision-making regarding virtual item purchases. Interventions that promote digital literacy and cultivate healthy gaming habits can mitigate risks associated with excessive spending and addictive behaviors. Enhancing platform design and user experience through an understanding of telepresence can create deeper gaming experiences and enhance long-term user engagement and loyalty. Additionally, regulators can use the findings to inform policies and guidelines that protect adolescent consumers from harmful practices and ensure ethical marketing of virtual items. Regulations promoting transparency in virtual transactions and safeguarding consumer rights are essential to maintaining a balanced digital ecosystem. In conclusion, this research not

only advances theoretical understanding of consumer behavior in digital contexts but also provides practical insights for stakeholders in the gaming industry, educators, policymakers, and consumer advocates in managing responsible virtual consumption among adolescents.

However, this study has several limitations. The findings cannot be generalized due to the online distribution of questionnaires, resulting in uneven representation across different adolescent age groups, predominantly skewing towards late adolescence. Furthermore, the study did not differentiate between types of games played by adolescents, such as Mobile Legends, PUBG Mobile, Free Fire, Valorant, among others. Additionally, the study did not compare adolescents from Java Island with those from outside Java in terms of their repurchase intentions of virtual game items.

CONCLUSIONS AND SUGGESTIONS

This study involved 239 adolescents predominantly male, in late adolescence, aged between 19-24 years. The majority had completed high school as their highest education level, with most respondents having a monthly allowance exceeding IDR1.000.000. Variables such as telepresence, social presence, and social value were categorized as moderate, indicating satisfactory levels. However, repurchase intention was categorized as low, suggesting a relatively low interest in repurchasing online game items. Correlation analysis concluded that there is no significant relationship between consumer characteristics (gender, age, education level, and monthly allowance) and repurchase intention. Regarding the influence test, it was found that only social presence did not significantly influence repurchase intention, whereas telepresence and social value did.

Recommendations for consumers include choosing games carefully to avoid online gambling and refraining from excessive spending on virtual game items to prevent impulsive and consumptive behaviors. Recommendations for governmental/non-governmental organizations, such as PBESI, YLKI, and OJK, involve providing education on the prohibition of online gambling and fostering consumer understanding to deter impulsive and consumptive behaviors. Future research could explore additional variables influencing repurchase intention, such as gaming motivations and consumer satisfaction. Furthermore, researchers could specify the types of games played to better understand their impact on consumer behavior.

REFERENCES

Alfarisi, A. H., Siregar, M. E. S., & Febrilia, I. (2022). Pengaruh nilai-nilai fungsional, sosial, dan emosional terhadap niat beli barang virtual game online. *Jurnal Bisnis, Manajemen, Dan Keuangan*, *3*(1), 297–313. http://pub.unj.ac.id/index.php/jbmk/article/view/656

Animesh, A., Pinsonneault, A., Yang, S. B., & Oh, W. (2011). An odyssey into virtual worlds: exploring the impacts of technological and spatial environments on intention to purchase virtual products. *MIS Quarterly*, *35*(3), 789. https://doi.org/10.2307/23042809

Cairns, P., & Hudson, M. (2014). 6 Measuring Social Presence in Team-Based Digital Games. In *Interacting with Presence: HCI and the Sense of Presence in Computer-mediated Environments* (pp. 83–101). De Gruyter. https://doi.org/10.2478/9783110409697.6

Cha, J. (2011). Exploring the internet as a unique shopping channel to sell both real and virtual items: a comparison of factors affecting purchase intention and consumer characteristics. *Journal of Electronic Commerce Research*, *12*(2), 115–132. http://www.jecr.org/node/71

Durianto, T. S., & Sugiarto, D. (2004). *Strategi Menaklukan Pasar Melalui Riset Ekuitas dan Perilaku Merek*. Gramedia Pustaka Utama.

Febrianto, K. W., & Artanti, Y. (2019). Pengaruh nilai konsumsi terhadap niat beli virtual item kustomisasi hero. *Jurnal Ilmu Manajemen*, *7*(2), 471–477. https://ejournal.unesa.ac.id/index.php/jim/article/view/26777

Ha, H., & Lee, J. (2019). The impact of gender on repurchase intention in the virtual game market. *Journal of Retailing and Consumer Services*, *52*, 345–352.

Ho, C.-H., & Wu, T.-Y. (2012). Factors affecting intent to purchase virtual goods in online games. *International Journal of Electronic Business Management*, *12*(3), 204–212. https://www.semanticscholar.org/paper/Factors-Affecting-Intent-to-Purchase-Virtual-Goods-Ho-Wu/53293bb57dd6ce1ae386469912d771e8f902dfba

Hussein, Z., Wahid, N. A., & Saad, N. (2010). Evaluating telepresence experience and game players' intention to purchase product advertised in advergame. *International Journal of Economics and Management Engineering*, *4*(6), 1365–1370. https://doi.org/10.5281/zenodo.1070131

Leong, P. (2011). Role of social presence and cognitive absorption in online learning environments. *Distance Education*, *32*(1), 5–28. https://doi.org/10.1080/01587919.2011.565495

Liu, X., Lo, V., & Wei, R. (2020). Violent videogames, telepresence, presumed influence, and support for taking restrictive and protective actions. *SAGE Open*, *10*(2), 215824402091952. https://doi.org/10.1177/2158244020919524

Lu, B., Fan, W., & Zhou, M. (2016). Social presence, trust, and social commerce purchase intention: An empirical research. *Computers in Human Behavior*, *56*, 225–237. https://doi.org/10.1016/j.chb.2015.11.057

Maharani, A. S., Fimansyah, W., & Daud, D. (2022). Pengaruh game online terhadap perilaku konsumtif remaja di Desa Tebel Kabupaten Sidoarjo. *Buddayah : Jurnal Pendidikan Antropologi*, *4*(1), 29. https://doi.org/10.24114/bdh.v4i1.35639

Papagiannidis, S., Pantano, E., See-To, E. W. K., & Bourlakis, M. (2013). Modelling the determinants of a simulated experience in a virtual retail store and users' product purchasing intentions. *Journal of Marketing Management*, *29*(13–14), 1462–1492. https://doi.org/10.1080/0267257X.2013.821150

Patricia, P., & Sahetapy, W. L. (2021). Pengaruh telepresence dan social presence terhadap purchase intention item virtual pada game Battle Royal PUBG. *Jurnal AGORA*, *9*(2), 1–9. https://publication.petra.ac.id/index.php/manajemen-bisnis/article/view/11727

Pelet, J.-É., Ettis, S., & Cowart, K. (2017). Optimal experience of flow enhanced by telepresence: evidence from social media use. *Information & Management*, *54*(1), 115–128. https://doi.org/10.1016/j.im.2016.05.001

Prandini, L. D. Y., & Telagawathi, N. L. W. S. (2021). Faktor-faktor yang menentukan kepuasan pembelian produk virtual dalam online games Mobile Legends. *Bisma: Jurnal Manajemen*, *7*(2), 294. https://doi.org/10.23887/bjm.v7i2.32500

Putra, K., & Atmaja, F. T. (2014). *Motif players dalam proses pembelian virtual goods pada permainan game online* [Universitas Bengkulu]. https://repository.unib.ac.id/8125/

Qiu, L., & Benbasat, I. (2005). An investigation into the effects of text-to-speech voice and 3D avatars on the perception of presence and flow of live help in electronic commerce. *ACM Transactions on Computer-Human Interaction*, *12*(4), 329–355. https://doi.org/10.1145/1121112.1121113

Saputri, M. E. (2016). Pengaruh perilaku konsumen terhadap pembelian online produk fashion pada Zalora Indonesia. *Jurnal Sosioteknologi*, *15*(2), 291–297. https://doi.org/10.5614/sostek.itbj.2016.15.02.11

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif & RND*. Alfabeta.

Sumarwan, U. (2014). *Perilaku Konsumen*. Ghalia Indonesia.

Suryanto, R. N., & Kadarisman, Y. (2015). Dampak positif dan negatif permainan game online di kalangan remaja. *Jom FISIP*, *2*(2), 1–15. https://jom.unri.ac.id/index.php/JOMFSIP/article/view/6826

Tu, C.-H., & McIsaac, M. (2002). The relationship of social presence and interaction in online classes. *American Journal of Distance Education*, *16*(3), 131–150. https://doi.org/10.1207/S15389286AJDE1603_2

Turel, O., Serenko, A., & Giles, P. (2011). Integrating technology addiction and use: an empirical investigation of online auction users. *MIS Quarterly*, *35*(4), 1043. https://doi.org/10.2307/41409972

World Health Organization. (2018). *Adolescent Health*. http://www.who.int/topics/adolescent_health/en/

Yulius, R. (2017). Analisis perilaku pengguna dalam pembelian item virtual pada game online. *Journal of Animation & Games Studies*, *3*(1), 1–14. https://doi.org/10.24821/jags.v3i1.1582