

Virtual Skin Outfit in PUBG Mobile Games: Value and Enjoyment with Virtual Appearance

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ABSTRACT

Playing games is indisputably one of the most prevalent human activities. Without a doubt, the expansion of mobile gaming is undeniable. PlayerUnknown's Battle Royale is an exceptionally notable mobile game since 2018. Player Unknown's Battlegrounds (PUBG) has gained worldwide success, attributed to the charming gameplay, tactical component, and "Royale Pass" system, which provides in-game items such as virtual skins. A virtual skin is an in-game item that players may purchase and obtain in-game. These skins have different values according to their rarity. Gamers eagerly anticipate the release of their "Royale Pass" to discover the latest skin variations that cater to their preferences. Previous studies have raised concerns about these gambling-like properties due to the unpredictable and rare opportunities to obtain virtual skins, leading to ambiguity about players' perceptions of the value and enjoyment of these skins. This research aims to explore players' perceptions of the value and enjoyment of virtual skin outfits in the game. A survey was conducted via a questionnaire generated using Google Forms. The research employed convenience sampling as it was based on the accessibility and willingness of the respondents to participate. A total of 30 respondents responded to the question, and a descriptive analysis was performed using the Statistical Package for the Social Sciences (SPSS) to determine the frequencies of the variables indicated. The study's findings indicate that players attribute value to virtual skins due to their design and style of the skin. Thus, they derive enjoyment from using the skins during gameplay. Moreover, the player's enjoyment in the game is influenced by their imagination and emotions, as they find various designs and styles aesthetically pleasing. Each player has their own unique perspective on beauty, and they have the freedom to select any virtual skin that brings them satisfaction in the game.

Keywords: Virtual skin outfit, PUBG mobile game, Enjoyment, Value.

INTRODUCTION

The video game industry is rising tremendously. According to The Asean Post, it is forecasted that the global game market will be worth US\$159 billion in 2020, and the figure is four times the office revenue in 2019, which is US\$43 billion. The Asia-Pacific region has the highest market revenue, accounting for nearly half the total game market value (Athira, 2020). The game industry is predicted to grow steadily, and one factor that could be the factor is the recent pandemic. The deadly virus, COVID-19, has threatened billions of lives worldwide, allowing consumers to spend more time playing games because of the stay-at-home phase. The pandemic shows increased gaming activity in the first half of 2020. This is part of escapism and a way to fill the time while in the quarantine phase. The lockdown situation allows these gamers to socialise and interact in games.

Mobile phones are the most popular platform for gamers to indulge in their favourite pastimes. Young adults and teenagers are attracted to the addictive nature of mobile games, and in certain situations, even older individuals. According to Newzoo's Global Games Market Report 2020, most players will access the ecosystem via mobile devices by the end of 2020. This platform's easy gameplay, shorter wait times, and advertising-based revenue make it possible for anybody to play and enjoy (Newzoo, 2020). The mobile gaming market for smartphones and tablets will be worth \$77.2 billion in 2020, a growth of 13.3 percent yearly. This is because most gamers have shifted from PC gaming to mobile gaming, which is decreasing with time. The second major factor contributing to the expansion of the worldwide gaming business is the lockout scenario of COVID-19 (Newzoo, 2020). One of the most famous downloadable mobile games is PlayerUnknown's Battlegrounds (PUBG). This game has been played worldwide. The first version was released in 2017 and has since received the Best Multiplayer Game award in 2017 and the Best Mobile Game award in 2018, both at the Game Awards (Gough, 2020). PUBG is one of the top mobile e-sports in 2020, and the PUBG Mobile Club Open Fall Split Global Finals in Kuala Lumpur has attracted massive audiences, with contestants from over 20 nations and a \$476,400 prize pool. (Conlan, 2020). Its reputation also increased when PUBG entered the South East Asia (SEA) Games in Vietnam in May 2022. PUBG is currently a viral game with 100 players, and the catchphrase is "Winner, Winner, Chicken Dinner." Both esports pros and amateur gamers play the game from across the world. Similar games include Fortnite, Call of Duty, and Free Fire, in addition to PUBG. Nevertheless, based on the early research, this study will examine the most recently played game by respondents, which is PUBG.

The rise in popularity of PlayerUnknown's Battle Royale since 2018 highlights the increasing impact of mobile gaming. The reference to the "Royale Pass" and the excitement it elicits among players underscores the significance of virtual skins in the gaming community. The inclusion of virtual items that may be acquired with digital currency enhances the game experience by introducing an intriguing dimension. Virtual skins are virtual items in-game that can be bought from a loot box, royale pass, events, or as a seasonal reward to the players. According to Grove and his view on the skin definition: "The term "skin" is derived from the typical function of these virtual items, changing the appearance of a player's in-game avatar, weapons, or equipment." (Grove, 2016). Grove was referring to Counter-Strike: Global Offensive (CS: GO), where skins are virtual items used in games, and they are purely aesthetic and do not add any function to the specific weapon or other item. In PUBG, an outfit is considered a skin. There are also weapon skins and vehicle skins. As previously stated, some skins are only available as part of a complete set during a specific event. At this point, skin becomes a collectable item for gamers. In some games, such as Mobile Legend Bang Bang, a skin is functional with specific attributes. However, in PUBG, the skin is just an outfit with only aesthetic value. Gamers are waiting for a new event to buy a

skin set and are willing to spend real cash, although they are expensive. PUBG virtual items are categorised by rareness level: rare, epic, legendary, and mythic. These items are placed in specific crates, with some crates having limited-time offers based on the event.

A thorough investigation of popular games such as Fortnite, Counter-Strike: Global Offensive (CS: GO), Dota 2, Call of Duty, League of Legends, and PUBG contributes to the growing study of virtual skin costumes. Researchers have explored several gaming settings to comprehend the complex influence of virtual skins on player behaviour, game economics, and the overall gaming experience (Joseph, 2020; Li et al., 2020; Makryniotis, 2018; Marder et al., 2019; Musabirov et al., 2017; Stadtmann et al., 2020; Wang, 2021). Virtual skin influences player behaviour, fosters engagement, and enhances the overall gaming experience. Players exhibit a strong desire to acquire aesthetic items, contributing to increased immersion, personalisation, and attachment to their in-game avatars or items. The economic aspects of virtual skin economies, including spending patterns, market dynamics, and the real-world value of virtual items, have been explored. The in-game market for virtual skins has proven to be a lucrative aspect for game developers, generating substantial revenue through microtransactions (Hamari, 2015; Hamari and Keronen, 2016, 2017; Li et al., 2020; Macey & Hamari, 2019). The psychological impact of virtual skin ownership reveals how these items contribute to player identity, self-expression, and social interactions within gaming communities (Li et al., 2020; Rivandy and Adibayu, 2020). The desire for rare or exclusive virtual skins often drives players to invest time and money to obtain these items, showcasing the emotional and psychological value attached to cosmetic customisation (Wang, 2021). Ethical concerns have been highlighted, particularly in relation to the use of loot boxes for virtual skin distribution, raising questions about player fairness and consumer protection. The existing studies on virtual skin outfits highlight their intricate impact on player behaviour, game involvement, and economic dynamics (Korkeila & Hamari, 2020; Macey & Hamari, 2019).

Although there is a substantial amount of study on virtual skin outfits, there is still a significant lack of information about players' firsthand reviews of the value and enjoyment connected with these cosmetic items. Though earlier research has examined the economic and psychological aspects, there has been a noticeable lack of investigation into the subjective experiences of players, specifically regarding their aesthetic preferences on the value and enjoyment of virtual skin outfits. The objective of this research is to fill this void by examining the intricate elements of player involvement with virtual skin outfits, resulting in a more extensive comprehension beyond mere expenditure patterns or broad psychological variables. The results of this study are positioned to provide useful insights into both academics and game production strategies, enhancing understanding of player preferences in the field of virtual goods.

LITERATURE REVIEW

Virtual Skin Outfit in PUBG

The habit of Malaysian PUBG streamers spending virtual currency in the game's loot boxes to acquire the skin outfit they prefer can be seen, and several videos document this behaviour. Unquestionably, purchasing virtual products in an online game is an issue. Numerous studies have been conducted on buying behaviour. The aesthetic value of virtual products is one of the aspects related to the purchasing factor. The most popular items are weapons, items, pets, mounts, and skin customisations (Cleghorn & Griffiths, 2015). Skins are based on a specific theme designed and come with a complete set. Therefore, gamers who considered to collect skins as their collectable item will insistently buy a loot box only to get the skin set. In PUBG, the skin will be applied to a particular item, such as an outfit, weapon, vehicle, and the best melee weapon, which is a pan. The unique skin set can be bought at a limited-time event. It should be noted that the skins are only for aesthetic purposes and have no special attributes or effects in-game. However, gamers still think that this purely aesthetic object is valuable and has some enjoyment to be used in games, though it does not affect gameplay.

Martinelli stated that skins are regarded as valuable by gamers: "Skins are merely ornamental and have no effect on actual gameplay, but have become a token of status and are immensely valuable" (Martinelli, 2017). Since skins in PUBG are aesthetic virtual items, they do not affect the gameplay. It has no unique functional elements to activate and no superficial powers to release when a certain skin type is used. Virtual items, which are purely aesthetic, have different values that the players determine. These products not only possess visual appeal but also impart status based on their rarity and contribute to the formation of one's identity or group affiliation (Martínez, 2017). Hellsten (2019) asserts that, like luxury apparel, aesthetic virtual items must possess substantial value to rationalise their purchasing by gamers. According to him, as games continue to improve in visual appeal, the first impression one gets of other players or gamers is mainly based on how they look.

Perceived Valuable and Perceived Enjoyment

A research was conducted to examine the purchase behaviour of aesthetic products, specifically focusing on how players of Counter Strike: Global Offensive (CSGO) view the value of these items. The study used the Consumer Culture Theory and narrowed its focus to the emotional and social components of commodity consumption. This study also examines the significance of symbolic consumption in order to understand the motivations behind players' purchases of virtual items. Martínez (2017), in his research, created a framework that focuses on three main perspectives on consumer culture identified by Featherstone (1990). Consumer culture theory focuses on three perspectives: 1) the expansion of capitalist commodity production, which has led to a vast accumulation of material culture; 2) the sociological focus on how people use goods to create social bonds or distinctions; and 3) the emotional pleasures of consumption, which generate excitement and aesthetic pleasure. The findings indicate a deviation from the motives often reported in players of free-to-play (F2P) and social network games. In these games, players generally obtain functional items to increase their enjoyment and reduce boredom while playing. Regarding Counter-Strike: Global Offensive, players have shown that they find pleasure in the game itself and do not consider virtual cosmetic items to be necessary for their in-game enjoyment. Instead, players purchase these items for hedonic and conspicuous consumption, fulfilling emotional and symbolic needs akin to owning a piece of art.

However, this is contrary to Manaf and Sabian's (2019) study about perceived visual enjoyment factors in artistic playability. They found that the visual aspect of the game did not significantly influence the player's engagement in continuous gameplay. Instead, the desire to finish the task and experience pleasure upon completion were the main motivating factors. However, the player expresses their subjective interpretation of the visual elements of the DOTA 2 game, highlighting their general satisfaction and admiration for the animation, crisp character graphics, realistic surroundings, and realism. The practical effect of the characters' powers encouraged players to extend the time of games, and the players are affected by visually rich effects during gaming. Additionally, a high-quality visual experience may significantly boost the player's excitement and motivation to play. This is supported by another study that examined the subjective perceptions of value associated with virtual goods and determined that the dimensions of value are socially built to varied extents in DOTA 2. The analysis shows that social factors influence and may vary the value of virtual items in various dimensions. The research specifically examines the internal structure of status and aesthetic qualities. The rarity and uniqueness of something determine its status, but its visual appeal is also a factor in its aesthetic appeal. Social behaviours like trading and interpersonal relationships have an impact on value formation. Understanding these aspects and their core elements has consequences for creating virtual items that match player preferences and improve the overall game experience (Musabirov et al., 2017). In addition, Gianto (2020) clarified the concept of perceived enjoyment in PUBG mobile games and found that the perception of enjoyment influences the desire to purchase virtual items, expressly signifying a desire to obtain items that are inside the game. This implies that the level of enjoyment is not just determined by the desire to play but also by the willingness to invest in or engage actively in the virtual gaming environment. Moreover, the persistent desire to engage with the game, or a strong impulse to do so, has significant impacts on the intention to obtain virtual items.

According to Reza et al.'s (2019) study, "I Like the Way the Skin Looks," the desire for diversity in the virtual gaming environment is associated with the act of purchasing and using skins in video games. Specifically, players from ethnic minority backgrounds tend to purchase and use skins that reflect their racial and ethnic identities, indicating a strong preference for visual appeal and a desire for representation in the digital realm. A player highlighted the significance of representation, expressing a preference for content that profoundly engages them in the game and depicts characters that mirror the varied reality of the real world. This emphasises the significance of including a wide range of racial and ethnic representations of in-game characters to improve the gaming experience and demonstrate a dedication to diversity. This could indicate the probable relationship between self-expression and the player's need for self-attachment in the game.

All prior research studies had examined the perspective of gamers towards these virtual items, known as 'skins', in both direct and indirect ways. According to Martinez (2017), players' perception of the 'skins' in CSGO is connected to their desire to own a piece of artwork rather than being linked to their enjoyment of the game. However, Marder et al. (2019) and Gianto (2020) mentioned that purchases are driven by the need for enjoyment, which might be linked to the desire for new experiences or visual attractiveness inside the game. These factors included 'novelty', 'aesthetics', 'self-gratification', and 'character dedication'. Additionally, it may serve as a method of honouring achievements both inside and outside the game while also demonstrating devotion to a character within the game. Abdul Manaf and Sabian (2019), in their research, also mentioned that players were drawn to the visual elements of DOTA 2, such as its characters, but did not explicitly mention 'skins'. The enjoyment derived from playing, however, is closely tied to its realistic visual elements. Musabirov et al. (2017) and Reza et al. (2019) presented eve-catching representations that highlight the distinctiveness of 'skin' value. For instance, possessing items that are eye-catching and linked to high social standing might potentially damage the owner by drawing unwanted attention to their own behaviour or the behaviour of their teammates. This situation can be seen from an ethnographic study of emergent behaviour in PUBG on Steam by Aguilar (2019) which revealed that during the spawn phase, players express their personal styles and affinities within the gaming community. This observation impacts social interactions, cultivating a sense of belonging and unity among players with similar preferences for virtual skin 'themes', 'colours', and 'styles.

Virtual Skin and Player's Imagination

When we contemplate imagination, several things come to mind. Some individuals may associate imagination with creative thought. Within the context of players and virtual skin outfits, it is how we interpret a scenario or item in the virtual world that drives us to acquire it, even though it is intangible. The force of emotion on "I want to have this skin" might be a factor that grows the imagination of players of having a collection of bundle skin outfits in their virtual wardrobe. A desire that might lead to the satisfaction and enjoyment of having this beautiful collectable item. Koumoundouros mentioned that imagination is "Imagining something into reality is probably a desire as old as imagination itself, but there might just be a slight bit more to it than mere wishful thinking" (Koumoundouros, 2019). In real life, we have wishful thinking that leads us to dream and imagine something we want in the future. Thus, in PUBG, players desire those skin outfits that evoke their emotions. Hence, they will purchase the skin at whatever cost, either for their satisfaction or for them to show off to their peers. The selection of skin outfits in PUBG is like Outfit of The Day (OOTD) in the current trend term. Player's imagination when selecting what skin to wear might be related to their emotions. Their decision to choose a skin for the day is associated with the imaginative vision of their desired persona, what maps they will go on, what beautiful skin they want to show off to their friend, or perhaps, "I just use it because that is what I have". Players tend to change their skin and imagine that the skin represents them. The imagination could also be in a different way. A person might imagine that they can wear something different from what they are. Players also tend to match their skin's outfit with their peers. This way, the skin gives them a feeling of being part of the team.

Though there is no direct effect on the gameplay when gamers use an aesthetic skin outfit, it cannot be denied that this virtual skin outfit gives some satisfaction to gamers when they use skins in playing games. Imagination is a fascinating skill of the human mind that affects our primary perception and comprehension of the environment in which we reside (Kiefer, 2020). A player uses their imagination to interact with the experience, not to describe it (Buchanan, 2016). Buchanan mentioned that the vibe of the impressive game is delivered from the game's creator's imagination to the player's imagination. In this case, the creation of a virtual skin set by the game's creator gives the players a chance to experience the imagination of the aesthetic virtual skin outfit. The selection of the skin outfits with the realistic representation of the game display gives the players a feeling of having a charming outfit in the real world. This includes the gender preference, either to use a male or female avatar. Players imagine and experience a virtual skin outfit to match the current maps in PUBG. According to pubg.gamepedia.com, PUBG has four different maps: Erangel, Sanhok, Miramar, and Vikendi. The latest map currently running in beta testing is Livia. All these maps have different environments and surroundings. Vikendi, for instance, is a snow forest map, and its location was inspired by the Adriatic Sea. Miramar is inspired by a desert in Mexico, while Sanhok is a rainforest/jungle environment taken from various islands in the Philippines and Thailand. Meanwhile, Erangel is a map inspired by the Russian climate with a forest theme (Maps, 2020). Because of the different weather and maps, players tend to visualise themselves in the surroundings and change their virtual skin outfits based on the map they will be playing. For example, a player might choose a white skin outfit for the Vikendi map or wear a warm and thick skin outfit just to fit in with the environment.

PUBG is currently in its "New Royale Pass A5" season, as mentioned on the official PUBG mobile website at https://www.pubgmobile.com/en-US/royalepass.shtml. Starting with season 4, a "Royale Pass" has been introduced in PUBG, which can be purchased using a virtual currency known as "Unknown Cash" (UC). This UC can be bought directly from an in-game application or other platforms that sell virtual money, for example, "midasbuy," which is an official account link to purchase virtual currency. "Royale Pass" gives players a chance to get skin by completing a mission and getting a free, rewarded skin outfit after buying a pass. From the Indian mobile gaming scene, besides supporting the developer, players buy "Royale Pass" to get top-quality loot. They will get an in-game item, though they must spend some money. Showing off is one of the reasons premium gamers buy "Royale Pass". Those who have money will buy it. This can be related to the collectors, who are willing to spend to fill their inventory with new skin from all seasons. The last factor that is also related is "the status seeker," which means if your peer has it, then you must have it (Biswas, 2019). This article relates to the social factor of how players act in-game regarding their behaviour when purchasing an in-game item. The purpose of buying and showing off the inventory that consists of skin is to give them some satisfaction.

Games allow players to control characters in imaginary environments, also enabling a high degree of flexibility at both visual and mechanical game levels (Harrell & Harrell, 2012). Added to this, there must be social, psychological, technological, cultural, and aesthetic factors at play that are worthy of inspection, given the broad distribution of user representations across platforms. In PUBG season 13, most of the adult players are not pleased with the 'Toy Playground' theme by the developer. The Power Rangers and Super Sentai skin are not preferable, and many complaints have been received. Several players have claimed that the design is similar to Fortnite, and the realistic image that was once associated with PUBG has been missing because of it (Eko Saputro et al., 2019). Adult players tend to like realistic skin rather than something that looks childish. Because the character and skin represent the player itself, the character needs to reflect themselves. The selection of skin and characters relates to a player. For example, in one study about personality and fantasy games, individual variations, such as age, sex, race, and personality, affect the selection of characters (Park & Henley, 2007). The study also indicates that males exhibited a preference for selecting human characters, while females tended to choose elves. Female gamers showed a more pronounced imagination compared to their male counterparts when comparing their preferences. Women often prefer options that diverge from reality. In PUBG, when engaging in imaginative role-playing, male players often opt to select a female persona as their avatar. They either perceive themselves as female or have a strong admiration for ladies, which might be the reason that motivates them to select it. That will be a distinct issue to deliberate. However, this study has

indirectly shown the differing perspectives of women and men on the value of virtual skin and their level of enjoyment with its use in games.

RESEARCH METHODOLOGY

This preliminary study used convenience sampling, a non-probability sampling technique that selects respondents based on their ease of access. The benefits of this method are its cost-efficiency, time effectiveness, and convenience (Etikan & Bala, 2017; Golzar, 2022). The surveys were sent to the respondents (n = 30) using Google Forms. Hinton et al. (2004) provide a recommended range of 10 to 30 respondents as an appropriate sample size for preliminary research. Prior to responding to the online questionnaire, a concise explanation was given of the objective of this survey, and respondents were instructed to offer feedback on the questionnaire. The questionnaire does not provide any visual representation. Instead, the rating relies only on the players' prior experience with the use of virtual skin outfits inside the game.

A descriptive analysis was performed using the Statistical Package for the Social Sciences (SPSS) to determine the frequencies of the variables indicated. Descriptive analysis is an essential component of statistical data analysis since it transforms unprocessed data into a format that is both comprehensible and interpretable. Data analysis encompasses the process of reorganising, sequencing, and altering data to uncover valuable insights. Descriptive analysis facilitates the constructive description of data points, enabling the identification of patterns that satisfy all data requirements. The tool offers a comprehensive analysis of data distribution, effectively recognises typos and outliers, and accurately determines similarities among variables, hence facilitating further statistical studies (Rawat, 2021). Descriptive analysis seeks to ascertain the occurrence rate of a particular event or reaction using metrics such as counts or percentages. For example, in a survey consisting of 500 participants, tracking the frequency of selection for a specific IPL team might enhance data accessibility by minimising the number of necessary replies (Rawat, 2021). This research used frequency measurement to analyse the data further. This approach is relevant to the goal of exploring the player's perception of the suggested variable.

The suggested variable is "*Perceived Valuable*," which encompasses design and style, collectability of cool items, the functionality of the skin, camouflage, novelty, and self-reward. "*Perceived Enjoyment*" includes satisfaction in the gameplay, attachment to the character, social self-image expression, emotional, symbolic, and hedonic needs, and 'showing off.' The frequency technique would be used to figure out the players' preferences for each item in the variables. This will include constructing a percentage to indicate which item is favoured by the players in terms of its value and enjoyment derived from its visually appealing appearance.

Instruments

The questionnaire took about 5 to 6 minutes to complete and has three sections – Part A: Respondent's details, Part B: User behaviour on the game, and virtual skin.

The purpose of the self-structured questionnaire is to explore players' perceptions of the value and enjoyment derived from virtual skin outfits in the game. The variables are derived from an in-depth review of the literature on virtual items and consumer behaviour pertaining to the purchase of virtual goods in games. The survey includes five multiple-choice options and open-ended questions where respondents may express their own opinions about the utility and fun of utilising in-game skins. Nevertheless, the open-ended question received a response from just one participant, and this response is included in the data for the "perceived value" variable.

Respondents

A total of 30 respondents participated in the study (Table 1), with an equal number of males and females. Of the 30 participants, 22 of them (73.3%) come from the age group 18 - 24, while 7 of them (23.3%) come from the age group 25 - 34. Only one respondent is from the age group 35 - 44, which makes up the rest of the sample (3.3%). The employment status shows that 21 of them (70%) are students, 7 of them are working (23.3%) and 2 of them are unemployed (6.7%).

Independent Variables	N (%)	
Gender: Male Female	15 (50%) 15 (50%)	
Ager: 18 -24 25 - 34 35 - 44	22 (73.3%) 7 (23.3%) 1 (3.3%)	
Employment Status Students Unemployed Working	21 (70%) 2 (6.7%) 7 (23.3%)	

Table 1. Respondents' demographic

FINDINGS

The frequency table shows male and female respondents how they perceive skin as valuable to them (Table 2). The players had chosen these six elements, which they mentally assigned these meanings to the skin they purchased or used. In those six, one element is an open-ended answer from a respondent, which is self-reward. The five elements are camouflage, design and style, collectability, cool item, functionality, and novelty. The frequency showed how frequently males and females select the elements they value the most. The overall result shows that design and style are the most frequently answered, with 93.3% (n = 28). Almost all agreed with this element, and both males and females are equal in number, which is 14. This was followed by 'collectability cool item' - 70% (n = 21). This element shows that males are more likely to collect skin than female respondents, with 12 males versus 9 females. A total of 16 players felt that they benefited from the functionality of the skin (53.3%), constituting nine (9) female players and seven (7) males. Camouflage constitutes 23.3% (n = 7). Four male respondents agreed that skin can contribute to camouflage, while only three females agreed. Novelty is only 16.7% (n = 5), and females are more particular about novelty than males (n = 2). There is one open-ended answer that comes from a male respondent, which is self-reward with 3.3% (n = 1).

Elements	Male	Female	N (%)
Design and Style	14	14	28 (93.3%)
Collectability cool item	12	9	21 (70%)
Functionality of the skin	7	9	16 (53.3%)
Camouflage	4	3	7 (23.3%)
Novelty	2	3	5 (16.7%)
Self-reward	1	0	1 (3.3%)

 Table 2. Perceived valuable frequency of virtual skin

The frequency table above shows males' and females' perceived enjoyment of using virtual skin in-game (Table 3). 'Satisfaction with the gameplay' is the most frequently answered question by respondents, with 83.3% (n = 25). There are 13 males and 12 females that support this statement. 73.3% (n = 22) said they were an attachment to the character, with 11 males and 11 females. 11 male and 10 female players stated that the skin is for social self-image expression, which accounts for 70% (n = 21). Then, for emotional, symbolic, and hedonic needs (53.3%; n = 16), more than half agreed to this, with an equal number of males and females, which is 8. Meanwhile, 'showing off' is at the bottom and less favourable with 36.7% (n = 11).

Elements	Male	Female	N (%)
Satisfaction with the gameplay Attachment to character	13	12	25 (83.3%)
Social self-image expression	11	11	22 (77.3%)
Emotional, symbolic, and	11	10	21 (70%)
hedonic needs	8	8	16 (53.3%)
Show off			
	7	4	1 (36.7%)

Table 3. Perceived enjoyment frequency of using virtual skin

DISCUSSIONS

This study examines players' views on virtual skins' value and enjoyment. Males and females see virtual skin differently; hence, element frequency was investigated by gender. Both sexes appreciate value in design and style, as well as enjoyment and satisfaction from in-game play on virtual skin. Males are more likely to display virtual skin as a collectable item because they value it more than females because they are more likely to flaunt it in-game. Skin function is more important for females. Given its distinctive appearance and style, skin design is an enjoyable and valuable in-game item. Both males and females prioritise skin design and style, followed by seasonal and functional skins. Virtual skins provide players with a virtual environment and significance. The design's rarity enables players to use their creativity and appreciate their look as an in-game valuable asset.

PUBG skin outfits are valued depending on imagination and expectation. excitement that may satisfy their beauty demands and desire for an aesthetic virtual good. After trying various seasonal, beautiful virtual skin outfits, the player's creativity grows stronger.Design and style matter most to players, and this analysis implies that rare skin-design outfits will grow in value because of players' attractiveness to them. This rarity sometimes makes the player different from the crowd and allows players to stand out or show their team loyalty (Wolfarth, 2019). Each season, players may earn a free skin to use as peer-group identification. Players dream about their seasonal skin designs, and collectors should have them. An aesthetic virtual skin outfit is not functional; however, some players believe it has a disguise purpose, such as utilising a white skin outfit to win Vikendi maps. Since it's aesthetically pleasing, it doesn't alter the skin's outfit's functioning. The camouflage factor is a result of the player's imagination and indirectly makes the appealing virtual skin outfits useful. Since novelty placed second in recognising virtual skin outfit differs based on player preferences; for example, in PUBG season 13, the developer came up with a very fancy toy box theme that is possibly appealing to teenagers but not to adults.

The character with a virtual skin outfit functions as the player's avatar. An avatar is a player's social representation, a graphical depiction of the character they control(Rogers, 2017). Thus, a player's selection is strongly influenced by their emotions and ideas about what they enjoy and desire to be. The

expression of a player's social self-image in PUBG depends on the skin they chose for their avatar to represent themselves. It provides a sense of attachment to the character. In-game identification is influenced by the player's relationship to the character and their gameplay experience (Sommer, 2016). Hence, a player in PUBG feels connected to the character through the skin outfit they use in-game. So, this is the main thing that makes players enjoy the game when they have "skin in the game." Though the result (Table 3) shows that showing off is the lowest element to provide enjoyment in using virtual skins in-game, it has some significance to some players. Previous research highlights the importance of a virtual skin outfit in a player's community, as it reflects their community status and appreciation of the skin. Owning rare and expensive skins, such as rare and expensive skins, is seen as a symbol of community status and appreciation. The aesthetic aspect of a virtual skin outfit is strongly linked to showing off among the community rather than the functional aspect (Hamari, 2015; Hellsten, 2019; Wolfarth, 2019). The emotional, symbolic, and hedonistic demands of a virtual skin are interconnected with how players feel. Both males and females agree that virtual skin has different symbolic and hedonistic meanings, but more research is needed to understand the deeper meaning behind these meanings.

CONCLUSION

Building upon this research on the perceived value and enjoyment of virtual clothing items in PUBG, the following suggestions aim to continually provide unique virtual outfits that appeal to players' interests. In addition, recommendations for improving the system that determines the probability of a player obtaining a virtual skin outfit include mechanisms to reduce the risk of developing an addiction to in-app purchases. Game makers should offer a 'diverse range of virtual skin outfit designs' to cater to various user preferences. This ensures gamers can showcase their uniqueness in the digital realm. 'Community engagement' can be fostered through online skin design competitions and live event skin design competitions. Incorporating player feedback into the creation of virtual skin outfits can enhance satisfaction and community involvement. 'Wide-ranging depictions' of ethnic origins, genders, and fashions can enhance the welcoming atmosphere in gaming. 'Customisation and personalization', can be achieved through various colour selections or brief events designed to customise avatars. 'Continuous innovation' in technology and industry developments can further enhance the gaming experience by integrating AR functionalities and dynamic animations. Overall, incorporating diverse designs and user preferences can enhance the gaming experience for gamers.

Royale Pass, a popular virtual skins outfit, is a popular choice among a diverse range of players. To ensure 'fairness and accessibility', it is recommended to implement fair procedures that don't limit access based on financial capacity. The 'integration of functional skins' can enhance gameplay while maintaining balance, such as adding unique animations or effects. 'Transparency in rarity systems' is crucial for managing player expectations and fostering trust in the virtual economy. However, current rarity probabilities may result in players spending a significant amount before obtaining valuable items. 'Advocacy for prudent expenditure' includes features promoting responsible spending on virtual goods, such as imposing fiscal limits, providing notifications for excessive spending, and providing educational materials. 'Collaborative events' can foster engagement with the gaming community by creating unique challenges and providing players with special skins as incentives. These strategies aim to promote a dynamic gaming experience and unity within the game.

In summary, the comprehensive implementation of these suggestions and recommendations is poised to transform the gaming experience by fostering creativity, inclusivity, fairness, trust, and responsible gaming habits. The result is a gaming atmosphere where players feel empowered, connected, and excited about the virtual worlds they inhabit, mainly using diverse and engaging virtual skin outfits.

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REFERENCES

- Athira Nortajuddin (2020). *Video Game Industry Thriving In A Pandemic*. https://theaseanpost.com/article/video-game-industry-thriving-pandemic#:~:text=The global video game market, World Economic Forum (WEF).
- Aguilar, C. (2019). Emergent Behavior in PlayerUnknown's Battlegrounds [Texas Tech University]. In *Aγαη* (Vol. 8, Issue 5). https://ttu-ir.tdl.org/bitstream/handle/2346/85067/AGUILAR-THESIS-2019.pdf?sequence=1&isAll owed=y
- Biswas, T. H. (2019). *the Royale Pass in PUBG Mobile*. https://www.sportskeeda.com/esports/5-reasons-why-people-buy-royale-pass-in-pubg-mobile
- Buchanan, K. (2016). *How Video Games Engage the Imagination Muscle*. https://www.popmatters.com/how-video-games-engage-the-imagination-muscle-2495454604.html
- Cleghorn, J., & Griffiths, M. D. (2015). Why do gamers buy "virtual assets"? An insight in to the psychology behind purchase behaviour. *Digital Education Review*, *27*, 85–104. https://doi.org/10.1344/der.2015.27.85-104
- Conlan, D. (2020). *The best mobile esports in 2020*. https://www.ginx.tv/en/video-games/the-best-mobile-esports-in-2020/5
- Eko Saputro, M. P., Ananda, N. A., Rizqi, R. M., Al-qahtani, A. A., Alenzi, A. A. S., Ali, A. S., Johnson, J., Excy, J., Krishnanunni, A., Ding, Y., Dagdee, P., Philip, L., Kumar, R., Al-Mansour, J., Zhu, C., Chen, L., Ou, L., Geng, Q., Jiang, W., ... Flynn, D. (2019). Research on operational model of PUBG. Academy of Strategic Management Journal, 32(2), 2019–2020. https://doi.org/10.1051/matecconf/201817303062
- Etikan, I., & Bala, K. (2017). *Sampling and sampling methods*. 5(6), 215–217. https://doi.org/10.15406/bbij.2017.05.00149
- Gianto, K. C. (2020). Pengaruh Perceived Enjoyment Terhadap Continuous Use Intention Dan Purchase Intention for Virtual Goods Pada Game Pubg Mobile Di Kalangan Mahasiswa Universitas Kristen Petra. 8(2), 2–9. http://publication.petra.ac.id/index.php/manajemen-bisnis/article/view/10585/9407
- Golzar, J. (2022). Convenience Sampling. December. https://doi.org/10.22034/ijels.2022.162981
- Gough, C. (2020). Number of peak concurrent players of PlayerUnknown's Battlegrounds (PUBG) on Steam worldwide as of January 2018 (in millions). https://www.statista.com/statistics/755111/pubg-number-players/
- Grove, C. (2016). Esports & amp; Gambling: Where's the action? In *Narus Advisors*. http://www.esportsbettingreport.com/wp-content/uploads/2017/04/Esports-White-Paper-v3.pdf

- Hamari, J. (2015). Why do people buy virtual goods? Attitude toward virtual good purchases versus game enjoyment. *International Journal of Information Management*, *35*(3), 299–308. https://doi.org/10.1016/j.ijinfomgt.2015.01.007
- Hamari, J., & Keronen, L. (2016). Why do people buy virtual goods? a literature review. Proceedings of the Annual Hawaii International Conference on System Sciences, 2016-March, 1358–1367. https://doi.org/10.1109/HICSS.2016.171
- Hamari, J., & Keronen, L. (2017). Why do people buy virtual goods: A meta-analysis. *Computers in Human Behavior*, 71, 59–69. https://doi.org/10.1016/j.chb.2017.01.042
- Harrell, D. F., & Harrell, S. V. (2012). Imagination, Computation, and Self-Expression: Situated Character and Avatar Mediated Identity. *Leonardo Electronic Almanac*, 17(2), 74–91. https://doi.org/10.5900/su_9781906897161_2012.17(2)_74
- Hellsten, J. (2019). *How Functional and Aesthetic Virtual Goods Influence the Purchase Motivations and Attitudes* (Issue April) [Aalto University]. http://web.lib.aalto.fi/en/helevoc/pdf/
- Joseph, J.(2020). ARE THEY REALLY JUST COSMETIC ? THE IMPACT OF COSMETIC ITEMS ON FORTNITE 'S GAMEPLAY AND GAME DESIGN (Issue December). https://www.proquest.com/pqdtglobal/docview/2479034563/fulltextPDF/AAA08651E2AE4E6APQ /1?accountid=42518
- Kiefer, D. (2020). THE IMAGINED WITHIN THE REAL : IMAGINATION, STORYTELLING, AND OUR PERCEPTION OF REALITY A Thesis Submitted to the School of Graduate Studies and Research in Partial Fulfillment of the Requirements for the Degree Master of Fine Arts David Kiefer Indiana (Issue May) [Indiana University of Pennsylvania]. https://search-proquest-com.ezaccess.library.uitm.edu.my/pqdtglobal/index
- Korkeila, H., & Hamari, J. (2020). Avatar capital: The relationships between player orientation and their avatar's social, symbolic, economic and cultural capital. *Computers in Human Behavior*, 102(January 2019), 14–21. https://doi.org/10.1016/j.chb.2019.07.036
- Koumoundouros, T. (2019). *Our Imagination Really Can Change Our Perceptions of Reality on a Neural Level.* https://www.sciencealert.com/our-imagination-can-change-our-perceptions-of-reality-on-a-neural-le vel
- Li, L., Freeman, G., & Wohn, D. Y. (2020). Power in Skin: The Interplay of Self-Presentation, Tactical Play, and Spending in Fortnite. *CHI PLAY 2020 Proceedings of the Annual Symposium on Computer-Human Interaction in Play*, 71–80. https://doi.org/10.1145/3410404.3414262
- Macey, J., & Hamari, J. (2019). eSports, skins and loot boxes: Participants, practices and problematic behaviour associated with emergent forms of gambling. *New Media and Society*, 21(1), 20–41. https://doi.org/10.1177/1461444818786216
- Makryniotis, T. (2018). Fashion and Costume Design in Electronic Entertainment—Bridging the Gap between Character and Fashion Design. *Fashion Practice*, *10*(1), 99–118. https://doi.org/10.1080/17569370.2017.1412595
- Manaf, A. A., & Sabian, J. (2019). Perceived visual enjoyment factor in artistic playability: In case study real time strategy (RTS) game. *International Journal of Innovative Technology and Exploring Engineering*, 8(8), 1551–1554. https://link.springer.com/content/pdf/10.1007%2F978-3-642-03655-2_39.pdf

- Marder, B., Gattig, D., Collins, E., Pitt, L., Kietzmann, J., & Erz, A. (2019). The Avatar 's new clothes : Understanding why players purchase non- functional items in free-to-play games. *Computers in Human Behavior*, 91(September 2018), 72–83. https://doi.org/10.1016/j.chb.2018.09.006
- Martinelli, D. (2017). Skin Gambling: Have We Found the Millennial Goldmine or Imminent Trouble? *Gaming Law Review*, 21(8), 557–565. https://doi.org/10.1089/glr2.2017.21814
- Martínez, B. R. (2017). Purchasing behaviour on aesthetic items in online video games with real currency The case of Counter Strike: Global Offensive [UPPSALA UNIVERSITET]. https://www.diva-portal.org/smash/get/diva2:1148087/FULLTEXT01.pdf
- Musabirov, I., Bulygin, D., Okopny, P., & Sirotkin, A. (2017). Deconstructing cosmetic virtual goods experiences in dota 2. Conference on Human Factors in Computing Systems - Proceedings, 2017Januar, 2054–2058. https://doi.org/10.1145/3025453.3025893
- Newzoo. (2020). *Global Games Market Report Infographics Newzoo*. https://newzoo.com/insights/trend-reports/newzoo-global-games-market-report-2020-light-version/
- Park, A. E., & Henley, T. B. (2007). Personality and Fantasy Game Character Preferences. *Imagination, Cognition and Personality*, 27(1), 37–46. https://doi.org/10.2190/ic.27.1.d
- Rawat, A. S. (2021). *An Overview of Descriptive Analysis*. https://www.analyticssteps.com/blogs/overview-descriptive-analysis
- Rivandy, A. R., & Adibayu, I. N. (2020). *MOTIF PEMAIN PUBG DALAM KOMUNITAS REVOLUTION* '*Z ESPORT DALAM MENGGUNAKAN VIRTUAL GOODS*. 7(2), 7172–7179. https://openlibrarypublications.telkomuniversity.ac.id/index.php/management/article/view/13792/13 534
- Rogers, J. L. (2017). Factors Influencing Player Behavior In Digital Games: A Review Of Literature (Issue January). https://search.proquest.com/openview/ff2f02037ebcc9569d456228d45ffb0d/1?pq-origsite=gscholar &cbl=18750&diss=y
- Sommer, C. (2016). Visual Detail and Its Effects on Character Attachment in Video Games [Purdue University]. In *Open Access Theses*. https://docs.lib.purdue.edu/open_access_theses/1007/
- Stadtmann, G., Tosun, A. D., & Pierdzioch, C. (2020). Are female skins sold for a lower price ? Evidence from the Fortnite game. 420. https://scholar.google.com.my/scholar?cluster=15494071960556489077&hl=en&as_sdt=0,5&as_yl o=2017&as_yhi=2023
- Wang, B. (2021). Understanding In-game Purchase Behavior of Millennials in Mobile Battle Royale Games. https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1627099&dswid=5292
- Wolfarth, K. S. (2019). The product life cycle of CS: GO skins as virtual goods and its influencing factors A comparison between physical and virtual goods (Issue February). https://doi.org/10.13140/RG.2.2.21195.85285