

## **ANALYSING SOCIAL STATUS AND PURCHASING BEHAVIOUR WITHIN VIRTUAL WORLDS**

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### **Abstract**

In 2021, there were an estimated 3.24 billion gamers worldwide, making up around 40 per cent of the worldwide population and is forecast to reach 45.2 per cent by 2027. Within the industry, game-oriented virtual worlds (VWs) exist that have real economic value via in-built economies with virtual currencies where participants can buy and sell virtual goods, including fashion items. Purchasable virtual items enhance a player's gaming experience and have become the primary method of monetising within the free-to-play business model. These virtual items, also known as micro-transactions contributes to large proportions of company revenues and in 2021 the worldwide online micro-transaction market reached US\$33.4 billion. Despite a growing market, there is scarce information about the drivers of virtual fashion micro-transactions in the virtual world Guild Wars 2 (GW2), therefore signifying a need to further explore the pursuit of purchasing virtual fashion items. It has been determined that in game-oriented VWs where players interact and socialise both within and outside of gameplay, social stratification exists similarly to real-world communities, impacting purchasing behaviour for virtual fashion. In view of this, the study aims to determine the link between social status and purchasing behaviour of players who buy virtual fashion within GW2. In this research, a conceptual model was used as a framework to discuss and compare results of purchasing behaviour for virtual fashion items within GW2. A quantitative method was used, and responses were collected from GW2 players via a survey link posted to relevant social media gaming forums. The results reveal social status is a motivator for purchasing virtual fashion items, with highest ranking players spending the most real-world money on virtual fashion, and players who are highly motivated to enhance character status spend the highest amounts to achieve their status goals. The current findings may aid game developers, fashion marketers and brands to better understand the influences driving the pursuit and use of virtual fashion items by players within game-oriented virtual worlds.

## **Introduction**

The global gaming industry continues to grow; in 2021 there was an estimated 3.24 billion gamers (Clement, 2022). Market predictions signal significant player base expansion, and in 2027 will have increased by 5.2 per cent, making up roughly 45.2 per cent of the worldwide population (Statista, n.d.). Within the gaming industry, virtual worlds (VWs) exist where players participate in gameplay, socialise, explore character identity, and purchase virtual goods, including fashion items. Game-oriented VWs are persistent online environments that bring players together who are physically distant to connect and interact in virtual spaces (Kock, 2008). Furthermore, they have built-in economies and virtual currencies, with trading systems where players buy and sell virtual items. These items boost a player's gaming experience and are the main method of monetising within the free-to play business model (Flunger et al., 2017). Virtual item purchases are also called micro-transactions, making up significant proportions of company revenues, and in 2021 worldwide microtransactions market value was reported at US\$33.4 billion and is forecast to reach \$51.09 billion by 2025 (Business Wire, 2021). Despite these growing markets, there is scant information on the drivers of micro-transactions, particularly virtual fashion within VWs, signalling opportunity to explore player motivations for purchasing virtual fashion within the game-oriented virtual world GW2.

The unique environments of VWs play a crucial role in the pursuit and use of virtual fashion and many factors influence the purchasing behaviour for virtual fashion, including channelling players' needs and desires from the real-world. Moreover, players interact and socialise both in and out of gameplay mimicking real-world experiences, as ascertained by Yee (2006) and Hassouneh and Brengman (2014), and social mechanisms exist, similar to real-world communities (Curtis, 1999; Hassouneh and Brengman, 2014). For instance, within VWs players may customise grand characters, interacting with each other as virtual representations of their real-life selves, and virtual items provide users with ability to achieve personal goals like expressing identity, flaunting (Cleghorn and Griffiths, 2015) or to manage social relationships (Yee, 2006). Furthermore, game developers design social stratification and obstacles into gameplay, to promote the sale of virtual goods. Accordingly, social status, customisation and advancement have been determined as key factors influencing purchasing behaviour. Therefore, more research is required to understand purchasing motivations for virtual fashion in VWs. In view of this, the research aims to determine the influence of social status in purchasing behaviour within the virtual world GW2. Insights into player behaviour and exploring their social needs in addition to in-world features would aid game developers, fashion marketers and brands to create desirable virtual fashion, satisfying the personal and social needs of players to keep them engaged and motivated to continue participating within the VW.

## **Literature Review**

Virtual world is an umbrella term commonly used to describe persistent online social environments where users share ongoing collaborative experiences (Girvan, 2018; Schroeder,

2008). These virtual spaces enable synchronous interactions between users who are geographically distant in the physical world (Kock, 2008). Game-oriented VWs such as GW2 and World of Warcraft (WoW) are subsets of virtual worlds, also known as massively multiplayer online role-playing games (MMORPGs). Despite debates attempting to define differences between game and socially oriented VWs (Girvan, 2018; Guo and Barnes, 2012; Schroeder, 2008), it has been agreed that socialising is a core characteristic of all VWs. Moreover, Yee (2006) affirms that MMORPGs are distinctive social environments.

Social attributes have advanced since VWs first appeared online, in fact observations recorded in a study based on one of the earliest text-based multi-participant virtual reality systems called a MUD (multi-user dungeon) described social practices where participants formed true communities, agreeing on standards of behaviour, appropriate language and social duties (Curtis, 1999; Stuart, 2007; Yee, 2006). MUDs have since evolved but the social element remains a crucial feature, central to modern virtual environments. Moreover, Yee (2006) supports this, contending that users reported learning leadership skills from the MMORPG in his study. This is consistent with virtual world GW2, where players gather outside of gameplay to socialise, holding events including parties or a fashion show in shared spaces called guild halls with assigned responsibilities and roles.

### ***Free-to-play Games and Virtual Items***

VWs like these have social and real economic value via built-in economies with virtual currencies where users may buy and sell virtual goods (Guo & Barnes, 2012). However, environments are unique and conditional to the business and revenue model game developers have adopted. The two main business models for game-oriented VWs are free-to-play (F2P) and pay-to-play (P2P). Traditional P2P are models that require one-off payments or subscriptions, whereas F2P offers a free yet restricted core experience. For instance, playing time and in-game actions are limited (Flunger et al., 2017). F2P revenue is generated through monetisation of additional features, services, and game functions that enhance core product and player experience. In addition, the sale of purchasable virtual items has become key to monetising within the business model (Flunger et al., 2017), and is for this reason that F2P games produce higher revenues than P2P.

Globally, players are spending up on virtual items. These sales, known as micro-transactions are contributing to sizable proportions of business revenues, impacting the worldwide micro-transaction market, which reached US\$33.4 billion in 2021 (Business Wire, 2021). The core features of F2P games are key to understanding the revenue model underpinning the sale of virtual goods, including fashion items. Moreover, conversion rates to paying customers are extremely low, sitting around one per cent, emphasizing that roughly one per cent of players finance 99 percent of those who play for free (Flunger et al., 2017). Similarly, Pinchefskey (2013) explains only two per cent of users purchase virtual items, showing that player spending has decreased over time.

Players may not be completely aware of game mechanics influencing purchasing behaviour (Flunger et al., 2017).

For instance, F2P game designers exploit player motivations to purchase virtual goods by manipulating the gaming experience. Strategies such as inconvenient gameplay elements, artificial scarcity, special occasions, and content alterations are deployed to generate increased revenue. Likewise, Hamari and Keronen (2017) discuss how game developers design obstacles and hindrances into gameplay, leading to player frustration where virtual item sales are driven by negative enjoyment. Additionally, social stratification is built into gameplay, encouraging players to distinguish themselves. Therefore, a delicate balance must be achieved between designing enjoyable experiences and gameplay gaps to generate virtual item sales. Moreover, these factors produce a double-sided effect where player enjoyment increases willingness to purchase, however, purchasing also occurs when the game is not enjoyable enough. Nonetheless, there has been little research on virtual fashion sales in VWs making it difficult to analyse how gameplay features impact purchasing motivations. However, it follows that they would as virtual fashion exists as a sub-category of virtual items. Furthermore, since social stratification is designed into the game, players would be motivated to stand out through character modification and buying virtual fashion to reach social goals. For these reasons, it can be argued that F2P characteristics are particularly relevant to influence the purchase of for virtual fashion in VWs.

**Key Factors Influencing Purchasing Behaviour within Virtual Worlds**

Prior literature shows the reasons why people purchase virtual items in VWs and games corresponds to the item’s native environment, contradictory to traditional goods (Hamari and Keronen, 2017).

To better understand purchasing motivations within specific VWs, Guo and Barnes (2012) created a research model and used this to investigate World of Warcraft for factors influencing purchasing behaviour within the environment (Figure 1).

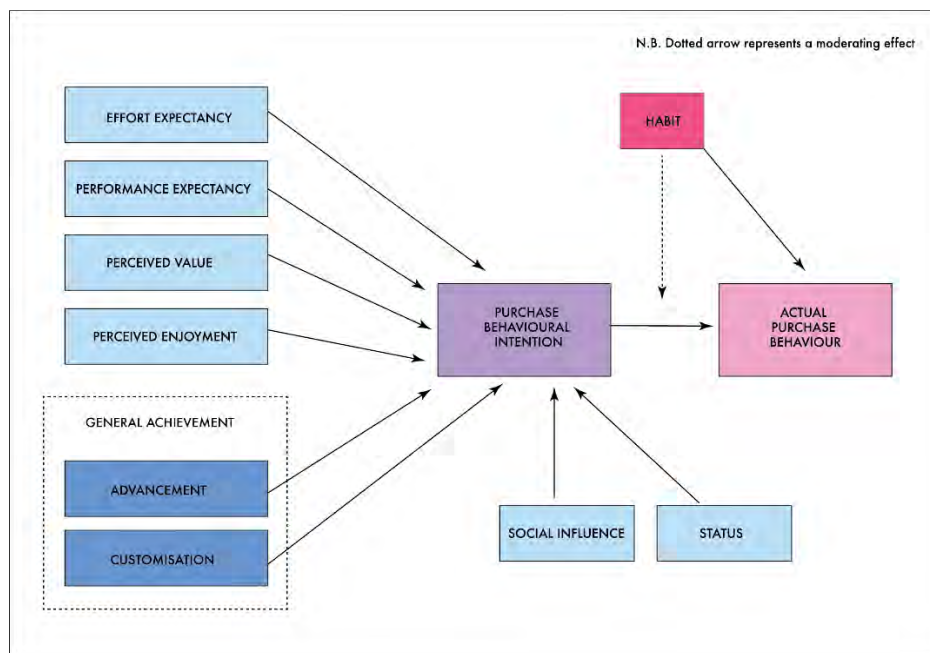


Figure 1. Research Model guided by Guo and Barnes (2012)

The model was designed to be used across various VWs, providing researchers with a framework to compare purchasing behaviours. The model identifies *performance expectancy, perceived enjoyment, perceived value, social influence, status, and general achievements advancement and customisation* as key factors guiding purchase behavioural intention (PBI), giving rise to actual purchase behaviour (APB). Therefore, it was appropriate to use this model to analyse purchasing behaviour for virtual fashion within GW2. However, this paper focuses on the key factors relating to social status and purchase behaviour within the VW. Thereby, social influence, social status, advancement, and customisation are the most relevant factors influencing purchasing behaviour within GW2.

Game-oriented VWs are extremely social (Yee, 2006), therefore social influence is a key factor to understand its influence on PBI. For instance, there are in-game quests requiring player cooperation, and players typically join in-world groups, developing personal networks (Guo and Barnes 2012). In addition, they can develop acquired skills within the networks, such as leadership skills through long lasting guild memberships where responsibilities, duties and rank assignments are managed and administered (Yee, 2006). Furthermore, Yee (2006) contends that the game architecture of MMORPGs promotes relationships that may extend into the real-world. For these reasons and more Guo and Barnes (2012) justify exploring social influence because of the influence that an individual's role has on other players' intentions towards purchasing virtual items. Cai et al. (2022) also report that flow and social influence are key factors influencing PBI for virtual items. Therefore, since virtual fashion is non-functional and a subset of virtual items, social influence may also impact PBI towards buying virtual fashion within these environments.

Advancement and customisation are two basic constructs used in the research model to understand if they impact player motivations for purchasing virtual items (Guo and Barnes 2012; Lehdonvirta 2009). Customisation describes how a player may acquire satisfaction and self-esteem from personalising character appearances using non-functional virtual items. Whereas advancement describes a character's increased competitive ability within the game that can be boosted through purchasing functional or non-functional virtual items (Guo and Barnes, 2012). Yee (2006) argues that customisation and advancement is only achieved using virtual items and Lehdonvirta (2009) discusses advancement in VWs as engaging within a status hierarchy. Aside from the functional attributes of virtual items such as how a sword or wearing armour increases character power, non-functional items like virtual fashion can increase the social status power through character advancement where players level up, unlocking access to desirable, highly valued items. Guo and Barnes (2012) add that players with high social status are compelled to maintain rank through regular item upgrades. Therefore, it follows that players would buy virtual fashion in this pursuit, supporting that customisation and advancement influence purchasing behaviour within VWs.

Social status in the context of VWs describes an individual's relative social position (rank) in relation to others within the in-world community, including members of subgroups such as guild communities in GW2. One study on personal and social effects found that users value social status, social identity, and personal identity (Koles and Nagy, 2012).

Moreover, Guo and Barnes (2012) included status into their research model to understand if players' positions within WoW influenced desire towards purchasing virtual goods, and they found this to be true. Furthermore, virtual gifting is linked to social status-seeking motivations in VWs (Goode et al., 2014) and this increases system use continuance. Thus, it could be argued this increases the likelihood of continued virtual fashion purchases due to ongoing game participation. Also, these items hold different social status value, depending on attributes of item price and shared symbolic value.

Connections between social status and in-world purchasing has been demonstrated across diverse gaming environments. Notably, players that gain high levels of satisfaction from developing powerful characters, are status driven and therefore highly motivated to increase character competency to acquire higher in-world status; thus, influencing PBI for virtual items (Oh and Ryu, 2007; Guo and Barnes, 2012). This corresponds with Hamari and Keronen (2017) who argue that social stratification is designed into gameplay. For this reason, it follows that players' purchasing motivations are influenced by game mechanisms. In addition, Oh and Ryu (2007) compare in-world with real-world behaviour where non-western customers purchase imported or western brands to signal high status. Likewise, advanced virtual items, including virtual fashion can be compared to luxury goods in this context. Given the above, social status has been shown to positively influence PBI for virtual fashion. Further, Guo and Barnes (2012) found a strong relationship between social status and PBI, where players who perceived themselves to have high status and rank, tended to purchase advanced virtual items. In fact, we can assume that some items would be non-functional, therefore it follows that these players may pursue virtual fashion items for this purpose.

## **Methodology**

An online questionnaire containing 21 questions was posted to popular Guild Wars 2 (GW2) community forums via social media platforms Reddit, Discord and Facebook GW2 groups.

The survey was designed to engage with anonymous, English-speaking adult GW2 players (18 years old and over) using specific game terminology and jargon. An initial interview with a GW2 player was carried out via live gameplay to ascertain game information, terminology, and jargon to demonstrate game knowledge and authenticity for participants. Finally, an ethics application was approved, and participants were informed of their rights to discontinue the survey at any time and that participation was anonymous. Ethics application number 25742 was granted by RMIT College Human Ethics Advisory Network (CHEAN).

Respondents were asked to answer questions ranging from multiple-choice to a Likert scale format. Resulting variables were compared and analysed to gain insights into players' purchasing motivations. A 5-Point Likert scale was presented as a scale (minimum =1, maximum =5) with 3 being neutral, and was selected due to reliability in measuring human behaviour. Respondents were presented with two sorts of Likert scales measuring degrees of agreement or disagreement, or satisfaction relating to their in-world experience of purchasing

virtual fashion. Values below the median point represent negative values and those above are positive.

Descriptive statistics and statistical hypothesis testing were carried out to determine whether associations between variables were statistically significant. P-values were determined and used to discuss these relationships.

## Results and Discussion

There were 152 adult respondents. 61.7 per cent identified as male, 32.2 per cent female, 3.4 per cent third gender/non-binary and 2.7 per cent preferred not to say. Of the respondents, most (122) were born after 1980 and located around the world, with majority based in the United States and countries within the European Union, notably United Kingdom, Germany, and Australia (Figure 2). Results from the study reveal that social status is an important factor influencing purchasing behaviour for virtual fashion. Questions targeted respondents' attitudes and behaviours towards purchasing virtual fashion within GW2.

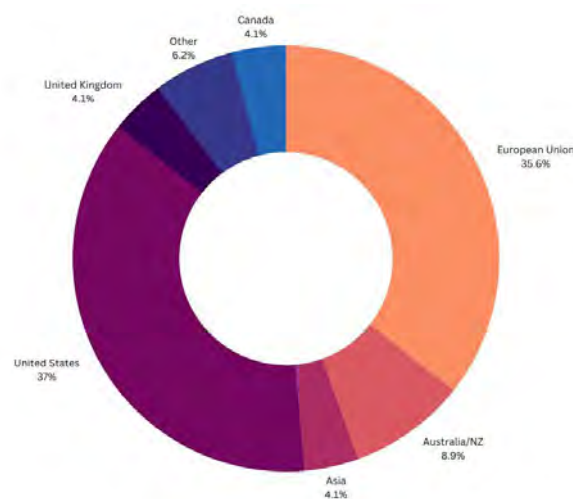


Figure 2. Base country of survey respondents

The results demonstrated that factors *performance expectancy* and *effort expectancy* were found to generally align with the findings of Guo and Barnes (2012) who found these factors to positively influence players' purchase intention and actual purchase behaviour for virtual items in WoW. However, as these link to players' use of the trading platform and are not relevant to social status it was decided to summarise them for this paper. In addition, the results for the factors *perceived enjoyment* and *perceived value*, revealed that most players enjoy the in-world and guild experience, similarly to the findings of Guo and Barnes (2012). Furthermore, most players are satisfied they receive value for money when purchasing virtual fashion. *Social influence* was analysed with most players disagreeing their relationships within their guild(s) influences skin/outfit purchases. This aligned with Guo and Barnes (2012) research, who demonstrated that social influence was not determined as a key factor

influencing PBI for virtual items in WoW. Last, *social value* and *hedonic behaviour* were both found to be key factors influencing purchasing behaviour. Table 1 shows the key factors influencing PBI for virtual fashion in GW2.

No.	Key Factors Influencing PBI for Virtual Fashion in GW2	Factor Influences PBI
1	Status	✓
2	Customisation	✓
3	Advancement	✓
4	Social value	✓
5	Enjoyment	✓
6	Perceived value	✓
7	Performance expectancy	✓
8	Effort expectancy	✓
9	Hedonic behaviour	✓
10	Social influence	✗

Table 1. Results of key factors influencing PBI for virtual fashion in GW2

### ***Social Status***

Within the literature it was found that users value social identity, personal identity, and social status (Koles and Nagy 2012). Furthermore, Guo and Barnes (2012) demonstrated that influence of players' in-world positions impacted desires towards purchasing advanced virtual items. In this study participants were asked to reflect and answer questions linked to their perceived in-world status.

Initially, participants were presented with the statement *My position(s) within my guild(s) motivates me to continually purchase advanced skins/outfits to enhance my character's status* and were asked to what extent they agreed. This yielded a negative result with most players disagreeing (Table 2).

Scale	Percentage of players
Strongly agree	0.7%
Agree	2.7%
Neither agree nor disagree	14.3%
Disagree	19.0%
Strongly disagree	63.3%

Table 2. Guild position as a purchasing motivator for skins/outfits (n=152)



Then, participants were asked to what extent they agreed with the statement *I am highly motivated to purchase skins/outfits, so my character appearance indicates how advanced I am in the game*. Most respondents were in disagreed with the statement as per Table 3.

Scale	Percentage of players
Strongly agree	3.4%
Agree	12.9%
Neither agree nor disagree	18.4%
Disagree	26.5%
Strongly disagree	38.8%

Table 3. Respondent answers for purchasing motivation to show advanced status

Subsequently, the study investigated the relationships between players' purchasing motivation to show character status and real-life money spent on virtual fashion. Of the minority group (3.4 per cent) who strongly agreed they are highly motivated to show character status through purchasing skins/outfits, 80 per cent spent US\$101-\$10,000 and 20 per cent spent greater than US\$10,000, and of the agree group (12.9 per cent) 63.2 percent spent US\$101-\$5,000 and 61.5 percent spent under US\$100. The results suggest that although most respondents disagree with being highly motivated to purchase advanced virtual fashion to enhance character status, those who agree spend more money to reach status goals.

Further analysis was performed to understand if player rankings impact purchasing intentions. For instance, players form guilds in GW2 where members hold positions such as leader, second-in-command (2IC), third-in-command (3IC), event coordinator, and may hold creative roles like interior decorator. The literature revealed that Guo and Barnes (2012) found players' positions within WoW influenced aspirations towards purchasing virtual items, showing a significant relationship between status and PBI. Players who perceived high status tended to purchase advanced virtual items (luxury virtual goods). To see if this was relevant in GW2, variables *My position(s) within my guild(s) motivates me to continually purchase advanced skins/outfits to enhance my character's status*, and *How much real-world money you estimate to have spent on skins/outfits?* were analysed to understand if guild rank motivates the continual purchasing of advanced skins/outfits to enhance character status by checking how much of the players' real-life money was spent on virtual fashion.

Results revealed most respondents strongly disagreed (63.3 per cent) that guild rank motivates virtual fashion purchases to enhance character status. Further, 59.1 per cent of this group spent less than US\$100 on virtual fashion. In addition, 2.2 per cent of this group spent above US\$10,000 demonstrating no distinct link between in-world status and virtual fashion purchases. However, of the few participants who agreed (2.7 per cent), 50 per cent spent US\$101-\$500, 25 per cent spent US\$5,001-\$10,000 and 25 per cent spent less than US\$100. Results suggest that although most disagree their guild position motivates advanced virtual

fashion purchases to enhance character status, those who agree spend higher to reach status goals.

Further analyses were performed into status related purchasing motivations within GW2. A significant relationship ( $P < .001$ ) was discovered between variables *My position(s) within my guild(s) motivates me to continually purchase advanced skins/outfits to enhance my character's status* and *I am highly motivated to purchase skins/outfits, so my character appearance indicates how advanced I am in the game*. Results showed (Table 4), that those players who strongly disagreed they are highly motivated to purchase for displaying character advancement, 89.5 per cent also strongly disagreed that guild position motivates purchasing to enhance character status, and a significant relationship was established between those respondents who strongly disagreed to those who disagreed (51.3 per cent). This shows that most respondents consider they are not status driven when it comes to virtual fashion purchases.

**Q9: To what extent do you agree with the following statement: I am highly motivated to purchase skins/outfits, so my character appearance indicates how advanced I am in the game**

<b>Q8: To what extent do you agree..character's status</b>	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Strongly agree	0.0%	5.3%	0.0%	0.0%	0.0%
Agree	20.0%	5.3%	3.7%	2.6%	0.0%
Neither agree nor disagree	40.0%	21.1%	22.2%	15.4%	5.3%
Disagree	0.0%	31.6%	25.9%	30.8%	5.3%
Strongly disagree	40.0%	36.6%	48.1%	51.3%	89.5%
Total	100%	100%	100%	100%	100%

Table 4. Guild position and status analysis

One last analysis was conducted on the topic, variables *what is your position within your primary social guild?* and *how much real-world money do you estimate to have spent on skins/outfits?* were compared to understand if those in higher ranking positions were spending more than those in sub ranks. Results showed that respondents' answers contradicted actual purchasing behaviour. For instance, it was found that leaders and 2IC members spent more than other ranks. In fact, 77.7 percent of leaders spent between US\$101-\$5000, 58.7 percent of 2IC members spent US\$101-\$5000, and 36.6 percent of 3ICs spent US\$101-\$5,000, showing a clear descension of spending through the top three ranks (Table 5).

<b>Player rank</b>	<b>Ratio of player spending (US\$101-\$5,000)</b>
Leader	77.7%
2IC	58.7%
3IC	36.6%
Other please explain	36.3%
I prefer not to say	53.7%

Table 5. Player spending on virtual fashion

However, for those who preferred not to say there was an increase in player spending, although not higher than the top two ranking positions. In addition, those who answered *other please explain* identified as unranked players. Finally, the last result from this data set showed that 6.7 percent of 3IC players spent between US\$5,000-US\$10,000 on virtual fashion, however, no leaders or 2ICs spent higher than US\$5,000. It may mean that players in third rank aspire to a higher position and are therefore spending more to enhance status, aligning with Guo and Barnes (2012) who contend that players in high ranks are under pressure to maintain social position. However, more research is needed to understand this factor including a membership time frame to ascertain the statistical relation between length of time and expenditure. Overall, the findings demonstrate that although results showed negative responses to participants being asked whether guild position motivates advanced virtual fashion purchases to enhance status, when considered in relation to the analysis of variables *what is your position within your primary social guild?* and *how much real-world money do you estimate to have spent on skins/outfits?*, it demonstrates that higher ranked players are spending the most money on virtual fashion. This suggests social position affects PBI for virtual fashion in GW2. Likewise, these findings correlate with Guo and Barnes (2012) who found that players' positions within the game influenced desires towards purchasing virtual items. Similarly, Hamari and Keronen (2017) argue that game developers design social stratification into gameplay, subsequently incentivising users to stand out within the VW. Thus, it follows player motivations would be influenced by game mechanisms, feeling pressure to distinguish themselves through customisation of character appearance, thereby increasing likelihood of purchasing virtual fashion to meet social status goals.

### ***Advancement and Customisation***

As mentioned before, there are power gains attached to some functional and non-functional items, providing users with performance boosters and social status power. In addition, it has been discussed in the context of taking part in a status hierarchy where advancement and customisation is only achieved through virtual item use (Lehdonvirta, 2009; Yee, 2006). Therefore, advancement is defined as advancing a character's competitive power within the game, improved through purchasing functional and non-functional items (Guo and Barnes, 2012).

Study participants were asked to what extent they agreed with being highly motivated towards advancing in the game to access desirable skins/outfits. Results demonstrate that participants agreed they are highly motivated to pursue virtual fashion items (Table 6), showing that advancement within the game is connected to social status power, corresponding with Guo and Barnes (2012) who argue that players who perceive high social status feel pressured to maintain rank through virtual item upgrades. Accordingly, players motivated to achieve status power, are also motivated to purchase virtual fashion, therefore, advancement is a key factor influencing PBI for virtual fashion items in GW2.

Scale	Percentage of players
Strongly agree	36.0%
Agree	38.4%
Neither agree nor disagree	16.0%
Disagree	6.4%
Strongly disagree	3.2%

Table 6. Respondent answers for motivation towards advancing in the game

Customisation describes how players may enhance their character after purchasing a virtual item, and players may derive much satisfaction and self-esteem through personalising character appearances (Guo and Barnes 2012), or by displaying unique style through virtual item use. Customisation includes but is not limited to features such as ability to change the colours (dyes) and patterns of skins and outfits in GW2, providing further basis for motivation underpinning the pursuit and purchasing of virtual fashion items within the VW. Likewise, Guo and Barnes (2012) had similar reasons for including customisation in the research model. Consequently, participants were questioned to what extent they agreed with feeling a strong sense of satisfaction self-esteem through customising their character's appearance.

Most participants responded positively, with 41.6 per cent agreeing and 40 per cent strongly agreeing with the statement (Table 7).

Scale	Percentage of players
Strongly agree	40.0%
Agree	41.6%
Neither agree nor disagree	8.0%
Disagree	9.6%
Strongly disagree	0.8%

Table 7. Measuring satisfaction and self-esteem through character customisation

To glean further insight into players' motivations for character customisation and the connection to advancement within the game. Questions *I am highly motivated to work towards advancing within the game to access desirable skins/outfits (levelling to 80, unlocking exclusive story/dungeon/raid skins, converting gold to gems to buy skins/outfits etc.)* and *I feel a strong sense of satisfaction and gain self-esteem through customising my character's appearance* were compared and a significant relationship was discovered between variables ( $P < .003$ ). This analysis explored participants' motivations towards advancing within the game to access desirable skins/outfits; and levels of satisfaction achieved through customising character appearance.

Results for both questions yielded positive results so it seemed relevant to determine if these factors were interrelated, therefore impacting each other's PBI for virtual fashion. The results showed that most respondents who agreed with *I am highly motivated to work towards advancing within the game to access desirable skins/outfits (levelling to 80, unlocking exclusive story/dungeon/raid skins, converting gold to gems to buy skins/outfits etc.)* also agreed with *I feel a strong sense of satisfaction and gain self-esteem through customising my character's appearance*, and of the minority who disagreed, claim they achieve much satisfaction through character customisation (Table 8).

**Q14: To what extent do you agree with the following statement: I am highly motivated to work towards advancing within the game to access desirable skins/outfits**

<b>Q15: To what extent do you agree...appearance.</b>	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Strongly agree	53.3%	41.7%	30%	0.0%	0.0%
Agree	33.3%	39.6%	55%	62.5%	50.0%
Neither agree nor disagree	6.7%	10.4%	10%	0.0%	0.0%
Disagree	6.7%	8.3%	5.0%	25.0%	50.0%
Strongly disagree	0.0%	0.0%	0.0%	12.5%	0.0%
Total	100%	100%	100%	100%	100%

Table 8. Motivations to advance within the game analysis

This demonstrates that most respondents are motivated to advance within the game to access desired virtual fashion and obtain much satisfaction and self-esteem through customising their character. Further, even though character customisation is not wholly achieved through virtual fashion purchases, respondents' motivations towards customisation are driven by desires to advance within the game. Thus, customisation and advancement are both key factors influencing PBI for virtual fashion in GW2.

## Conclusion

The use of virtual fashion within VWs contributes to sizable proportions of gaming industry revenue and considering market growth forecasts and the need to meet consumer demands, this study provided insights into social status and purchasing behaviour for virtual fashion in the virtual game-oriented world GW2.

Social status motivates the purchase of virtual fashion items within GW2, supporting the literature that demonstrates connections between social status and in-world purchasing within VWs. Moreover, enquiry into players' motivations for purchasing virtual fashion to show character status, and real-life money spent, revealed that although most players disagree they are highly motivated to purchase virtual fashion for this purpose, those who agree spend more to realise status goals.

Further analysis into whether players' in-world ranking impacts purchasing intentions demonstrated that although most players disagree their guild position motivates advanced

virtual fashion purchases to enhance character status; those who agree spend higher amounts to reach social status goals. In addition, a significant positive relationship was discovered. The analysis showed that players who disagreed guild position motivates purchasing virtual fashion purchases to enhance character status, also disagreed they are highly motivated to purchase for exhibiting character advancement. This showed that most players consider they are not driven by status goals for purchasing virtual fashion. However, it was determined that higher ranking players outspent those in lower or unranked positions and spent the most real-world money on virtual fashion items. Results supported social status as a key factor influencing purchasing behaviour for virtual fashion within the game-oriented virtual world GW2, and notably, that most players who on one hand consider themselves not status driven, are on the other hand acting differently.

The research also determined customisation to be a key factor influencing purchasing behaviour for virtual fashion and closely ties to social status and advancement within the game. Previous literature demonstrated how social stratification is designed into gameplay, thus, promoting a status hierarchy, whereby advancement within the game allows access to desirable skins/outfits. Likewise, the results showed players are highly motivated towards advancement within the game to access desirable skins. Additionally, advancing within the game is linked to perceived status power and high-ranking players feel pressured to maintain their status through regular virtual item upgrades. Accordingly, players motivated to purchase virtual fashion through advancement and customisation are in fact increasing their status power. These findings suggested that player motivations for character customisation are driven by desires to advance in the game and showed that most players are motivated by advancement to gain access to desirable virtual fashion. Therefore, character customisation and advancement are key factors influencing PBI for virtual fashion in GW2.

Virtual fashion purchases within game-oriented VWs are driven by a variety of factors, including social status, advancement, and customisation of character. In addition, virtual fashion features provide players with benefits such as a strong sense of satisfaction and self-esteem through the ability to customise their characters.

Game developers, fashion marketers and brands would benefit by understanding players' purchasing motivations within these environments to design highly customisable virtual fashion that satisfies players' personal and status goals to increase microtransaction revenue and capitalise on future market growth opportunities.

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