

Product Placement in life simulation video games: A quantitative analysis on the effect of product placement of luxury and non- luxury brands on purchase intention.

Student Name: Maria Evangelia Zachariadi
Student Number: 466573

Supervisor: Dr. Petra Tenbült

Master Media Studies - Media & Business
Erasmus School of History, Culture and Communication
Erasmus University Rotterdam

Master's Thesis
June 2022

Product placement in life simulation video games: A quantitative analysis on the effect of product placement of luxury and non-luxury brands on purchase intention.

Abstract

The increasing popularity of the video game industry has provided advertisers and marketers a new avenue for marketing and product placement research. Brands aim to target consumer in personal and relevant way, investing in this way towards product placement in video games platforms. However, there is conflicting research in regards to product placement effectiveness, specifically towards whether product placement affects consumer's purchase intention. Hence, the purpose of this study is to investigate how the product placement (permanent product placement, semi-permanent product placement and no-permanent product placement) of luxury brands and non-luxury brands in the life simulation video games affect purchase intention. Drawing on previous studies that were conducted on product placement in different fields, this study will have a combination of current theories and models while aiming to improve and extend them in the context of the video game industry.

An experiment was designed to a sample of university students between the age of 18-26 years old to investigate how Gucci and H&M's product placement affects purchase intention in the life simulation video game of Sims. Participants were asked to visualise a case scenario with real-life product placement of Gucci and H&M on Sims (edition 4) and rate nine statements.

The findings of the study show that individuals are more likely to purchase non-luxury brands compared to non-luxury brands in the life simulation video games. When looking at the effect of product placement types on purchase intention, results showed that product placement does not influence purchase intention. None of the product placement type had an impact on purchase intention. Lastly there was no interaction effect between brand type and product placement type on purchase intention. Moreover, these results provide meaningful insights for marketing managers regarding which brand types influence purchase intention in the life simulation video game genre. For future research, it would be interesting to investigate advergaming, a new less traditional approach to product placement in video games and research on its effectiveness.

KEYWORDS: Video games, product placement, luxury, purchase intention, non-luxury

Table of Contents

Abstract.....	2
1.Introduction.....	5
1.1 Problem statement	5
1.2 Academic relevance	5
1.3 Societal relevance	7
1.4 Managerial relevance	7
1.5 Research question	8
1.6 Research method	8
1.7 Outline.....	8
2.Theoretical Framework.....	10
2.1 Luxury & non-luxury brands definitions.....	10
2.2 Purchase intention definition.....	11
2.3 Luxury & non-luxury brands on purchase intention.....	12
2.4 Luxury & non-luxury brands in video games	13
2.5 Luxury & non-luxury brands on purchase intention in video games.....	13
2.6 Product placement definitions	14
2.7 Product placement in video games	15
2.8 Purchase intention in video games	17
2.9 Purchase intention & product placement of luxury and non-luxury brands	17
3. Methodology.....	20
3.1 Sample.....	20
3.2 Research design	21
3.3 Pre-tests	23
3.4 Operationalisation and measurements	24
3.4.1 Operationalisation and measurements for filler questions	25
3.5 Procedure	26
3.6 Data Analysis.....	27
4. Results	Error! Bookmark not defined.
4.1 Two-way ANOVA.....	30
4.1.1 Main effect: Brand type on purchase intention.....	30
4.1.2 Main effect: Product placement type on purchase intention	31
4.1.3 Interaction effect: Brand type and product placement type	31

<i>5. Discussion & Conclusion</i>	33
<i>5.1 Implications</i>	34
<i>5.2 Research limitation and future research</i>	36
<i>5.3 Conclusion</i>	38
<i>6. Reference list</i>	39
<i>APPENDICES</i>	48
<i>Appendix A. Pre-test survey – Determining luxury vs non-luxury brands</i>	48
<i>Appendix B. Pre-test survey – Manipulation check</i>	51
<i>Appendix C. Survey</i>	56
<i>Appendix D. Stimulus material</i>	60
<i>Appendix E. SPSS output</i>	66

1. Introduction

Video games are becoming increasingly popular in the last years. In 2020, the video game industry saw a 62% increase in revenue, earning in total \$175 billion, compared to 2017 where it generated 108.4 billion in revenues (Martí-Parreño, 2019; Barton, 2021). Due to the expansion of the video and computer game industry, advertisers and marketers acknowledge the potential of video games as a venue to promote brands and products in an engaging and indirect way (Kim & McClung, 2010; Martí-Parreño, 2019; Nelson, 2002).

1.1 Problem statement

As research has shown, traditional marketing and advertising are less effective in the current market environment resulting in companies to earn less return on investment compared to previous years (Clavio, 2009). Nowadays, brands aim to target consumer in personal and relevant way, investing in video game platforms. Brands such as Burberry in the Blankos Block Party, North Face with Gucci in the Pokémon Go, Moschino in Sims and Louis Vuitton in the League of Legends are a few brands that incorporate in their marketing strategy product placements in the video industry (Velasco, 2021). Product placement is when brands or branded products are contained as part of an audio and/or visual in a mass media program (Karrh, 1998). Both brand placement and product placement are utilised in existing literature and are terms used interchangeably (Balasubramanian et al., 2006). Advertisers can reach a huge intimate environment audience through product placement in video games, an evolution that has blurred the line between entertainment and advertising (Richtel, 2002). Considering how the video game industry is receiving a lot of attention, it could be increasingly beneficial for companies to know whether product placement in the video games influences purchase intention. However, there is still limited research on luxury brands and video games. Specifically despite luxury industry being one of the most profitable and fastest-growing industries, luxury brands are still poorly understood and not investigated enough (Knag, 2012; Macchion et al, 2015; Chen & Deterding, 2013).

1.2 Academic relevance

By placing brands and products in video games, marketers expect to influence cognitive, affective, and conative consumer outcomes which include brand recognition, brand attitude or/and purchase intention (Martí-Parreño et al., 2017). For example, in the study of Nelson (2002) which investigated the effectiveness of product placement in car racing games it was found that attitudes toward product placements were positive and when a brand was part of

the game and consumer had to be actively involved, consumers could recall the brand more compared to when the brand was 'passively' in the background. However, despite an increasing effort over the past last years to enhance knowledge on product placement's effectiveness in the video games industry, there is still limited research on product placement in video games. More specifically, there is a gap in the literature towards consumers and how they process brand placement in the video games (Martí-Parreño, 2019). One genre of video games that has attracted major attention in both academic but also professional environment are the life simulation games (Nkhoma et al., 2014). Life simulation games are games that replicate life (Nkhoma et al., 2014). Due to its ability to offer high level of engagement and involvement, users find them enjoyable (Nkhoma et al., 2014). It has been projected that the simulation video game market size will reach \$20.76 billion by 2030, growing by 15.2% from 2021 to 2030 (Borasi, 2021). Despite the power of video games, specifically the life simulation games, there is limited research on their effectiveness. Mainly current academic research on life simulation games focuses for education purposes such as teaching and game-based learning (Herz & Merz, 1998; McKenney & Dill, 1966; Mohsen et al., 2018). This paper aims to extend the current literature of life simulation games, focusing on its effectiveness towards purchase intention.

Regarding product placement, previous research has been primarily focused on the memory-based effects of product placements, such as for example recognition & recalling of brands (Nelson, 2002; Gupta & Lord, 1998; Brennan & Babin, 2004). The main reason that there is such attention on this topic is the fact that most academics and researchers aim in evaluating the effectiveness of brand placement. Little research has been done on behavioral outcomes of product placement such as purchase intention (Davtyan & Cunningham, 2017; Kuhn et al., 2004). Many issues remain to be unsolved regarding product placement effectiveness (Dens et al, 2012; Kuhn et al., 2004). Furthermore, research about brand placement in the academic literature is predominantly focused in film industry and not in other industries like the video games (Sung & de Gregorio, 2008; Thornton, 2004). Only few studies have examined product placement in new media environment such as computer games and online games (Hung et al., 2011; Mau et al., 2008). Despite the increased interest of brands to use video games as part of their marketing communications strategy, there is contradictory research in regards to how product placement affects purchase intention (Okazaki, 2011). Previous findings in the chapter *Product Placement in Video Games as Marketing Strategy* suggest that product placement strategies are not useful in motivating the final purchase decision of the product (Okazaki,

2011). On the other hand, in the quantitative study of Chernikova and Branco (2019), it was found that gamers generally respond positively towards product placement and that product placement can indirectly impact emotional responses that will impact consumer's purchase intention. From these contradicting academic findings, we can deduce that there is room for further research in relation to this topic.

1.3 Societal relevance

Research on video games has societal relevance due to increasing time spent on video games, growing gaming audience and the differences within the gaming industry. Advertisers and marketers see business opportunities due to the growing video game popularity among the youngest generation. Specifically, it was estimated that in 2022, 77% of Millennials and 81% of Gen Z consumers play video games, spending on average 7 hours and 20 minutes per week on video games (Hadi-Vasilev, 2022). Therefore, this research is relevant as it corresponds to the current situation in marketing, the use of new technologies and focuses on gamers as a target market for related marketed brands (Chernikova & Branco, 2019).

By looking at the effect of product placement on purchase intention, this research contributes to the existing literature of the effectiveness of product placement in relation to purchase intention, but also will provide useful insights into the video game world and the potential of product placement in it. In addition, it offers practical implications to marketers in terms of whether product placement of luxury and non-luxury brands in the video games leads to purchase intention. Thus, determining the effectiveness of product placement is important in order to determine the pricing rates that advertisers should pay for the placement in the games (Panda, 2006). Additionally, this will also allow game developers and video game owners to design meaningful pricing schemes for brand placement deals (Davtyan & Cunningham, 2017). Thus, this research not only contributes to the existing literature on brand placement effectiveness but also offers several practical implications to marketing practitioners (Davtyan & Cunningham, 2017).

1.4 Managerial relevance

Research on product placement has managerial relevance due to the reduction of costs for video game developers. Main advantage of using product placement in video games for video game developers is the increase in budget while developing video games. Brands invest money to video games so that their brand appears which leads to video game developers being able to cover the video games cost (King et al., 2019). This is a profitable deal for the video game

developers. On the other hand, brands through video games can reach the younger audience that are difficult to reach otherwise. Research has shown that college students love Gucci, which ranks second among the most popular brands bought by college students accounting for 51.67% (Siyao, 2021). Thus, brands like Gucci, with the use of video games can increase their popularity and reach in relevant ways the younger generation.

1.5 Research question

Hence, the purpose of this quantitative research is to answer the following research question: *To what extent does product placement of luxury and non luxury brands in life simulation video games affect purchase intention?*

1.6 Research method

To answer the research question, a 3x2 experiment will be conducted with university students with the age range of 19-26 years old. This is the most suitable method to use because the focus is to find a cause-effect relationship between two independent variables: type of brand (luxury vs non-luxury) and product placement (permanent, semi permanent, non-permanent) and then observing the differences in the outcome on the dependent variable: purchase intention (Vargas et al., 2017). The sample group are college students because students samples are the most relevant for video game research as it is found that 81% of university students nowadays play video games and 69% of them spend money on video games (Martí-Parreño et al., 2017; Weustink, 2021). To collect the data a survey will be utilized from Qualtrics, approximately 4 minutes long. Lastly, the analysis will be on SPSS program by conducting a between subjects analysis of variance (ANOVA). This test will allow to find whether there are significant differences between the independent variables (type of brand, product placement) on the dependent variable (purchase intention). Overall, this is one of the few studies that explores product placement with luxury and non-luxury brands on simulation games and its effect on purchase intention.

1.7 Outline

The thesis is organised as follows. The second chapter gives an overview of the current academic literature on product placement, life simulation games and luxury and non-luxury brands. In chapter two, the literature review clearly defines the concepts, the gaps of the current academic research and formulates the hypothesis. The third chapter gives the research methodology, the scales used, the procedure, sample and how we are testing the effects of

product placement on purchase intention. The fourth chapter follows the analysis of the data, whether hypothesis is supported or not and answers the research question: to what extent product placement of luxury and non luxury brands affects the purchase intention. Finally, the fifth chapter outlines the key theoretical and managerial implications of the findings, discussing both limitations together with suggestions for future research.

2. Theoretical Framework

In this chapter, literature on the most crucial theories, models and concepts will be discussed and reviewed. The structure is based on three topics: *brand type* (luxury versus non-luxury), *product placement types* (permanent product placement, semi-permanent product placement, no-permanent production placement) and *purchase intention* in the life simulation video games.

The structure is the following, firstly *brand type* is discussed: (2.1) the definitions and the differences between luxury versus non-luxury, (2.2) purchase intention definition (2.3) research on luxury and non-luxury and their influence on purchase intention, (2.4) research on luxury and non-luxury brands in video games (2.5) lastly demonstrate a gap in the existing research of luxury & non-luxury brands on purchase intention in video games and hypotheses are drawn. Secondly, *product placement* is discussed: (2.6) definition of product placement, (2.7) research of product placement on video games and demonstrate a gap in the research where hypotheses are made. Thirdly, *purchase intention* is discussed: (2.8) research on purchase intention in video games and lastly (2.9) research of product placement, luxury versus non luxury on purchase intention and the gap in the literature where hypotheses are drawn.

2.1 Luxury & non-luxury brands definitions

A luxury brand is a branded product that is unique, specially crafted for an exclusive market (Salehzadeh & Pool, 2016; Hung et al., 2011). According to research, luxury brands offer a pleasurable experience to consumers that drives them to purchase their products (Aryani, 2020). Researchers find that luxury is associated with pleasure, evokes exclusivity, and tends to create perceptions of higher quality (Kong et al., 2021).

According to Romaniuk & Huang (2019) study, there are five attributes which make a brand be perceived as luxurious. Firstly, it needs to be *recognisable* in terms of how well known is the brand to the public (brand awareness) and how prominent is the style of the specific product (e.g monogram of Gucci in the shirts). Secondly, it needs to be of a *superior quality*. This means that the brand's quality is of refined fabrics which allows it to be charged with a high price. Thirdly, the *customer experience* reflects the interaction between customer's and the brand. Brand representatives in sales both online and offline need to deliver excellent service. Fourthly, it needs to *resonate with how I see myself*, meaning customers need to

identify with the product and the brand's values. Lastly, the final attribute is *unique from mainstream brands*, which is the extent to which a luxury brand gives to its costumers something exclusive compared to other brands (non – luxurious ones). All these attributes help to make a distinction between luxurious and non-luxurious brads. Furthermore, Rashid and Chattaraman (2019) study adds to this model, that what distinguishes luxury and non-luxury brands is based on intrusive factors. More specifically, luxurious brands enhance consumer's prestige status and can create a stronger group coherence compared to non-luxury brands, where consumers do not demonstrate common goals between them (Rashid & Chattaraman, 2019). This supports the notion that luxurious brands create a sense of belonging to a group while non-luxurious brands do not.

According to Baghi and Gabrielli (2018) study, by definition, there are three factors that non-luxury brands lack which consequently place them in the category of non-luxurious, and those are: functionalism, experientialism, and symbolic interaction. Functionalism refers to products that have certain features such as superior quality, durability, or handcraftsmanship. Experientialism are features that have sensory pleasure and hedonic consumption, such as traditional and exclusive designs while symbolic interaction are product components that relate to status, self enhancement, and group membership. While luxurious brands contain those features and elements in their products and strive to provide excellent experience to their costumers, non-luxurious brands lack them. Non-luxurious brand aim to provide to their customers: affordable price, good quality and easy accessibility. Thus lack of: functionalism, experientialism and symbolic interaction clearly make a distinctions between brands that are in the category of luxury and brands that are in the category of non-luxury.

2.2 Purchase intention definition

Purchase intention can be defined as the willingness of a consumer to acquire a product of a specific brand (Baker et al., 1977). Current recent on purchase intention and video games demonstrates that placing brands within video games does have a positive impact on attitudes towards the brand (Glass, 2007). However, there are many cultural and social factors that influence purchase intention and brand image is a major factor (Aryani, 2020). Based on current findings, brand image has a significant high effect on purchase intention, meaning the higher the brand image is established, the higher the purchase intention is for the consumers (Aryani, 2020).

2.3 Luxury & non-luxury brands on purchase intention

This study focuses on purchase intention rather than behaviour due to the wider implications of purchase intention and its positive impact on individual's actions (Hung et al., 2011). This has been supported by scholars that have studied the significance of purchase intention in the context of brand consumption (Dubois & Paternault, 1995). Factors influencing luxury brand purchase have been mainly explored by Tsai (2005), Hung et al., (2011) and Vigneron and Johnson, 2017. In their research, although definitions and terms were used differently, Vigneron and Johnson (2017) and Hung et al., (2005) highlighted the influence of self-promotion and external factors in regards the purchase intention of luxury brands.

Most of the research on luxury brands focuses on how luxury brands influence purchase intention (Dale & Shawn Green, 2017). For example, current research on luxury brands found that social context positively influences purchase intention for luxury brands. This means that consumers often purchase luxury brands to enhance their self-identity and social status and prefer reputable names rather than price (Wiedemann et al., 2009; Blunden et al., 2006). This shows that social status is a key factor for purchase behaviour (Vigneron & Johnson, 2017). This is also supported by research by Hung et al., (2011) which found that when buying luxury products, consumers want to convey their social standing and their power thus reinforcing the concept that purchasing intention is influenced by external factors.

Previous literature has looked at factors influencing luxury purchase intention and non-luxury purchase intention. Lim et al., (2016) examined four sportswear brands, two luxury, and two non-luxury brands, in terms of hedonic symbolic benefits, utilitarian benefits that influence consumption patterns. The finding of the study demonstrates that the benefits provided by luxury brands exceed the benefits of non-luxury brands influencing in this way purchase intention. The purchase intention for luxury brands was higher compared to non-luxury brands. Similarly, Becker et al., (2018) findings on luxury products show higher levels of desirable physical characters compared to non-luxury products which result in higher levels of psychological value to consumers. He underlined that luxury brands in this way can create a consumer luxury brand bond that results in a strong consumer luxury brand relationship. Based on those findings, we believe that luxury brands have a more positive effect on purchase intention than non-luxury brands.

2.4 Luxury & non-luxury brands in video games

In the last couple of years, there is an increasingly scientific and academic interest in video games, more specifically in real-life simulation games (Dale & Shawn Green, 2017; Kuss & Griffiths, 2011). Life simulation games are games that replicate activities of real life, where users can interact and behave like in 'real life situations' (Kuss & Griffiths, 2011; Clark et al., 1997). Video games rankings on 2020 have shown that Animal Crossing: New Horizons, a life simulation game was in the top 5 best-selling games, selling more than 11 million copies within eleven days of its launch (Makuch, 2021; Reydar, 2021). The user demographic of Animal Crossing was mainly between 20-30 years old demonstrating Gen Z's great interest in life simulation games (Reydar, 2020).

Furthermore, one of the most popular video games is called The Sims (Nutt & Railton, 2003). Sims is a life simulation game in which all users controls the moves and behaviours of individual characters, referred to as Sims, within the community of the game. They interact with other Sims, make friends, marry, or move together. The platform allows its users to download different items to expand the playability of the game. Players, throughout the game, are exposed to a great deal of written language, with product descriptions in the virtual catalogues used for shopping in the game (Ranalli, 2008). Due to its complex and fictional narratives, it is a rich and vibrant resource for academic research (Nutt & Railton, 2003). For the purpose of this study, this paper will focus in the life simulation game 'The Sims' and how its product placement influences consumer's purchase intention.

2.5 Luxury & non-luxury brands on purchase intention in video games

Nonetheless, there is a gap in the literature on how life simulation games are used by marketers to influence consumer's purchase intention. Current research mainly focuses on how life simulation games are effective as an educational tool (Leemkuil, 2020; Rannali, 2008). This study aims to fill the gap on life simulation games and develop an understanding whether luxury and non-luxury brands can use life simulation games to influence user's purchase intention.

Furthermore, there is limited academic research on luxury brands and non-luxury brands in the life simulation video games setting. However, recent research demonstrates a positive effect on purchase intention in e-sports video game settings. Specifically, Gucci partnered with an e-sports video game organisation called Fnatic releasing a collection of limited dive

watches priced at \$1,427 and all the pieces were sold out in forty-eight hours (Sharbatian, 2021).

In addition to those findings, research has shown that in video games “if consumers form a positive attitude on the advertisement, consumer’s willingness to buy the product or brand advertised will be formed” (Wang et al., 2021). Sharbatian (2021) found that consumers are more inclined to buy products that are of a higher quality compared to lower quality. Following this notion, according to Wang et al., (2021) luxury brands are of higher quality and functionality which supports the following hypotheses that in video games, consumers will be more willing to purchase luxury products. Hence, the brand type, whether the brand is considered luxurious or non-luxurious does play a role on purchase intention. Based on the current literature, the following hypotheses are proposed:

H01: The Brand type has no affect on purchase intention. Luxury and non-luxury brands have no affect on purchase intention.

H1a: The Brand type has an affect on purchase intention.

H1b: Luxury brands will have a more positive effect on purchase intention than non-luxury brands in the life simulation video games.

2.6 Product placement definitions

Product placement can be defined as “ the paid inclusion of branded products through audio or visual means within mass media programming” (Sabour et al., 2015, p.362) . The aim of product placement is to affect positively consumer’s behaviour and brand awareness. The reason why product placements is investigated thoroughly in current academia is because of its ability to provide a greater reach than traditional media and advertisements, together with the opportunity to put brands in natural environments and imply endorsement when an actor uses the product (Kuhn et al., 2004). An additional advantage of using product placement comes through its ability to affect positively sales (Jusufovic-Karisik, 2014). For example, the BMW Z3 car was featured in the 1995 James Bond movie Golden eye and generated 9,000 orders after the release of the movie (Chavadi et al., 2019). In addition to that, in the 1982 hit-movie ET, the Reese’s Pieces candy saw increase of sales by 66 percent shortly after the release of the movie (Guennemann & Cho, 2014). From these examples, we can deduce that product placement has an impact on the equity of the brands and their sales.

Thus, industry and various academics acknowledge this practice and extensively research product placements' effectiveness, recall based on memory, purchase intention and ethical practices (Chan et al., 2016; Brennan & Babin, 2004) . In particular, the scope of product placement research to date has generally focused on movies rather than other vehicles (Hackley et al., 2013). In recent years, either the producer asks for permission of the company to display their logo or brand pays the producer to get it displayed in the movies (Chavadi et al., 2019). This happens because producers and directors want to make their movies appear realistic to viewers, therefore product placement has become beneficial for both parties (Hackley et al., 2013).

2.7 Product placement in video games

In regards to product placement in video games, according to Martí-Parreño et al., (2017) research, the implications to achieve product placement effectively in video games, marketers need to consider using multiple marketing tools to further enhance consumer's brand recognition to the point of purchase intention. Product placement in the video game setting only reinforces the recognition of the brand and does not trigger by itself purchase intention behaviour. However, this study only focused on one type of video game genre which was the racing video game. Video game genres and their features vary from each other thus other genres need to be taken into consideration to confirm those implications.

According to Balasubramanian et al., (2006) paper there is a gap in the literature for specific types of placements. More specifically, given the growing array of placement types, comparisons await to be investigated. The paper suggests that future studies need to compare the performance of identical placements across genres (game shows vs reality shows) and media types (movie versus reality shows). Additionally, the paper raises questions regarding the saturation point for product placement in terms of brands included and what levels of exposure time and prominence would cause a placement to be perceived as irritating to the target audience and negatively affect their perception towards product placement. Our paper takes a further step to examine whether the level of product placement (permanent, semi-permanent and no permanent) will influence consumer's conative behavior: purchase intention.

In regards to the type of product placement, there is conflicting research about blatant (otherwise called permanent) product placement and semi-permanent product placement.

Chavadi et al., (2019) study findings support the following: blatantly placed brand has more impact on attitudes towards the brand than subtly placed brands in the movies. On the other hand, as it was discussed on Chan et al., (2016) research paper participants that are exposed to permanent product placement have lower purchase intention in regards to the placed brand. They conducted a content analysis, followed by an experiment of different brands to discover the effects of product placement in different types of cultures (UK & Hong Kong). Their findings suggest that overexposing a brand does not necessarily translate into higher purchase intention on the contrary may lead to consumers evaluate critically the placed product and developing negative emotions toward the placed product. They further indicate an inverted-U shape relationship between visibility of a placed brand and product placement effectiveness, suggesting that product placement is more effective if the placed brand is visible enough to draw attention but not too prominent to bother the audience. However, an issue with the findings of this study was that only two countries (UK & Hong Kong) were considered which leads to questioning the generalisability of the findings. Despite, that limitation, there is strong evidence that semi-permanent product placement has more of a positive effect on purchase intention compared to permanent product placement.

In an effort to enhance understanding of the impact of product placement on video games, Homer's (2009) study examines the effect of repetition of branded placement in television and movies, comparing those that are subtle and those that are prominent (Homer, 2009). Subtleness product placement includes only visual images of the placed products while the prominent product placement includes visual images with scripted references to the brands in the script dialogue (Gupta & Lord, 1998; Russell, 2002). In the paper of Homer (2009), findings suggest that brand attitudes decrease when product placement are prominent/obvious, especially when the product mentions are repeated. On the other hand, subtle cases of product placement were found to create relatively positive brand attitudes. However, the study lacks generatability to the video games genre due to the fact that the study focused on one movie and one television program. Despite this limitation, the quantitative research demonstrates the importance of integrating product placement in the entertainment sector.

These results are further supported by the qualitative study of Bigné et al., (2011). Bigné et al., (2011) research used a case study to look at the effectiveness of product placement techniques of Walt Disney using interviews from Disney staffs and a focus group of consumers of Disney video games. The findings of this research demonstrate that product placement in video games has the capability to influence in a negative way brand's equity if

the placement is too prominent or perceived as a deceptive advertising tool. This means that if the brand is excessively repeated in the game, consumers form a negative attitude towards and games become so annoyed with the brand placement that they avoid purchasing the brand.

Thus, based on the current literature, the following hypotheses are proposed:

H02: Product placement has no affect on the purchase intention in the life simulation video games.

H2a: Product placement has an affect on the purchase intention in the life simulation video games.

H2b: Semi-permanent product placement will have a more positive effect on purchase intention compared to permanent product placement in the life simulation video games.

2.8 Purchase intention in video games

According to Bleize and Antheunis's (2017) paper which talks about factors affecting purchase intention in virtual worlds, it was discussed that having an avatar (like an avatar on the life simulation video games) is an extension of an individual's real-life, emphasising that virtual worlds are very merged in an individual's life. Therefore, it is key to create consumer experience in the virtual world alike to the experience in real life, as this will help enhance the purchase intention of consumers. Thus, the paper concluded that the marketing possibilities to increase purchase intentions in the virtual worlds are: the product placement of objects, setting up flagships stores, or in-game advertising on virtual billboards.

2.9 Purchase intention & product placement of luxury and non-luxury brands

In regards to product placement in the video game setting, Kim and McClung (2010) study found that users who had a positive attitude toward product placement, in general, demonstrated stronger intention to purchase products that were placed in the game. In addition to this finding, Nelson, Keum and Yaros (2004) found a similar finding. More specifically, the paper investigated video gamers' attitudes toward product placement and found that gamers with a positive attitude towards advertising are also more likely to respond to product placement by purchasing it. Along with those findings, according to Stavljanin et al., (2017) users' attitudes are more positive when product placements are not interrupting the game, are suitable to the game concept, and are not too deliberate. This means that permanent product placements will lead to lower purchase intention because the product placement in the

video game is too deliberate. This is also supported by Marchand et al., (2015) who found that the permanent product placement influence negatively the consumer's view of the brand and creates 'resistance' to the persuasion tactics used. Thus, it is concluded that consumers' behaviours are more favourable and have a stronger intention to purchase products when the product placement is not too constant and deliberate.

Furthermore, more research on product placement found that overexposing the same product in a short time negatively affects the effectiveness of the message conveyed. This is because consumers feel overwhelmed (Davtyan & Cunningham, 2017). We extend the related discussion of Davtyan and Cunningham (2017), to propose that semi-permanent product placement is the most effective method to increase purchase intention as an outcome. This is because semi-permanent product placement communicates substantial brand information to consumers and won't lead to distraction away from the video games (Balasubramanian et al., 2006).

Considering the current literature, there is little understanding of how product prominence in the luxury affects purchase intention (Cheah et al., 2015). As a result there is a gap regarding product placement and the luxury sector. Nonetheless, in Cheah et al., (2018) examines two different luxury product categories (fashion apparel vs fashion accessories) and two celebrities (Kim Soo Hyun vs Jun Ji-Hyun) in the television drama series and how these variables affect consumer's purchase intention. All respondents were familiar with the television drama series. One of Cheah et al., (2018) outcomes suggest that celebrity product placement of luxury brands has a positive effect on consumer's purchase intention. This result is significant to luxury product apparel (Celine coat), meaning consumers were more likely to purchase the luxury apparel, the Celine coat. Thus, this research demonstrates that the formation of consumer's attitudes and behavioural intent are stimulated through luxury product placement in the popular culture tv drama series, My Love From the Star. It is found that the two celebrities have influenced the consumers towards the purchase intention of the luxury brands however there was a clear positive effect between the product placement of luxury brands and purchase intention compared to any other category (non-luxury) of fashion brands. This gives proof that product placement of luxury brands increases consumers' purchase intention.

Finally, based on these findings and the prior hypothesis H1 and H2, we propose the following hypothesis:

H30: Purchase intention will not be affected by the brand type placed in the life simulation video game.

H3a: Purchase intention will be affected by the brand type placed in the life simulation video game.

H3b: Semi-permanent product placement will have a more positive effect on purchase intention compared to permanent product placement in the life simulation video games and this effect is stronger for luxury products compared to non-luxury products.

3. Methodology

After reviewing previous research on product placement, this chapter focuses on the methodology of this research. Firstly, the sample, the sampling method and the sampling size are described. Secondly, the research design is discussed where the choice of the research method, namely the experiment, is motivated and explained. In the third section, the two pre-tests conducted and their results are presented. In the fourth section, the operationalisation of the dependent variable, namely purchase intention, and independent variables, namely product placement type and brandy type, are described. This section continues with the presentation of the scales used for the filler questions. In the fifth section, the discussion of the procedure of the experiment is explained. In the last section, the type of analysis is described and motivated.

3.1 Sample

The target population for this study are university students. The reason that university students is the target is due to the fact that students samples are relevant for video game research as it is found that 81% of university students nowadays play video games and 69% of them spend money on video games (Martí-Parreño et al., 2017; Weustink, 2021). According to Dean and Biswas (2001) research, a number of 25 to 30 respondents are needed for each experimental group to be able to deliver valid outcomes. Translating this finding to this research a sample size of 180 university participants should be sufficient to produce valid results. To recruit the participants, snowball sampling is used. Snowball sampling is a non-probability sampling technique mainly used to reach a population that is difficult to reach (Sharma, 2017). This type of sampling technique is suitable for this study because it facilitates to reach the target population, reducing costs and time (Stavljanin et al., 2017). In addition, snowball sampling is beneficial because participants are likely to know other people with similar characteristics that are fitting to the study. While with the snowball sampling there is little control over the sample, this method is time efficient to recruit new participants (Sharma, 2017). Furthermore, the type of snowball sampling used is exponential non-discriminative snowball sampling where the referrals will provide multiple referrals. The benefits of using this type of sampling is that initial referrals can share the research link with their circle and friends. This allows to reach a greater pool of the target group.

Participants are between the age of 18-26 years old, studying in universities across the world to obtain their bachelor's or master's degrees. The goal is to reach a minimum of 180

participants. To reach this goal, initially 60-70 participants are contacted to fill out the survey and are asked to recommend other contacts who fit the research criteria and who will be willing to participate in this research. The reason why initially 60-70 participants are asked to fill out this survey is to reach as many university groups as possible. The participants are initially notified via social media and the non-responding participants are approached again via the telephone. These initial participants then shared the survey to their friends and other groups, capturing in this way an increased circle of participants. With the referrals of the initial participants, in total 219 participants filled out the survey. The survey is conducted online via Qualtrics. The data collection lasted for approximately two weeks.

Overall, the total amount of people that filled in the survey was $N=219$. However, some participants that answered the survey did not meet the requirements: 18-26 years old and studying at the university were removed from the research ($N=39$). Hence, a total of $N=180$ were recorded. In the final sample the percentage of women is 60.0% , the male share is 39.4% and non-binary/third gender is 0.6%. None indicated their gender as 'other'. Participant's average age was 22.31 ($SD= 1.95$). Due to the international nature of the obtained group, the sample obtained a total of 44 different nationalities. The most prominent being Netherlands (23.4%), Greek (15.6%) and (9.5%). The most named highest education was Bachelor's Degree (46.7%), followed by master's degree (23.3%) high school graduate (17.8%).

To give some additional details on the background of the participants in relation to video games, of all 180 participants 44.4% said they like a lot playing video game and 21.7% do in game-purchases. However, only 32.8% of the 180 participants spent 2-3 hours per week playing video games.

3.2 Research Design

A 3 (permanent product placement vs semi-permanent product placement vs non-permanent product placement) x 2 (luxury brands vs non-luxury brands) will be used to test the hypotheses. This research uses a quantitative method to answer the research question because the objective is to find purchase intention behaviour and how it is affected by product placement and luxury and non-luxury brands. Thus, an exploratory study is suited to investigate these variables (Tina & Buckner, 2006).

The most appropriate design to conduct this study is an empirically based experiment. This is because experiments are mainly used for explanatory purposes and to provide causal relationships and the aim of the paper is to find out the causal relationship between the level of product placements and purchase intention (Neuman, 2014). By using empirical-based experiment, the goal is to determine the effect of product placement of luxury and non-luxury brands on the purchase intention. The advantage of using an experimental design is the precision in which one can analyse and find relationships between variables, minimising vagueness (Bell, 2009). Since this study, relies on examining the relationship between product placement of luxury and non-luxury brands and purchase intention, experimental design is the most appropriate method to test the theories (Bell, 2009). Furthermore, the experimental method is the most suitable method for issues that have a narrow scope and this research has a narrow scope as the focus is on one type of video game genre: the life simulation game (Neuman, 2014).

Moreover, the research design for this experiment is a between – subject design, which is a type of experimental design where participants are assigned to different conditions (Oeldorf-Hirsch, 2018). More specifically what it means is that participants can experience only one of the experimental conditions. This is a design that is used very often in social science fields. There are two main reasons of using a between-subject design for this study. Firstly, when researchers investigate real world decisions, such as purchase decisions the experimental design they use is a between-subject design (Charness, 2012). Secondly, this design allows for the use of randomizations and since participants are not aware of other conditions, they are less likely to understand the true purpose of this experiment, and therefore provide true answers. However, one of the disadvantage of using this type of research design is that it requires many participants because each conditions requires different participants.

In addition, to collect data, questionnaires are used as a method. This is because previous studies on product placement and video games used questionnaires (Huang et al. 2019; Marti-Parreno et al., 2017). Furthermore, questionnaires are the most suitable method to collect data in a small period of time and to explore for relationships between the different variables (Kalton et al., 1993). Lastly, one of the benefits of using this method is that participants can respond to questionnaires at suitable moments for themselves and once they are submitted, all the data is stored immediately in a database resulting in easier access and analysis (Bell, 2009).

Furthermore, this research has two independent variables and one dependent variable. The first independent variable is: product placement. Based on previous studies on product placement, there are three levels identified: permanent product placement, semi-permanent product placement and no-permanent product placement. A combination of the papers of Gupta and Lord, (1998) and Russell (2002) are used to define the different types of product placement. The second independent variable is the brand type (luxury vs non-luxury brand). To define which brands are considered luxurious and which brands are considered non-luxurious, a pre-test has been conducted to 20 random participants (see section below). For the main study, one brand is chosen in the end to represent the luxurious category and one brand the non-luxurious category in the experiment. Lastly, the dependent variable of this research is purchase intention.

3.3 Pre-tests

To determine what brands are considered luxurious and non-luxurious, a pre-test is conducted to 20 participants, between the age of 19-26 years old, that will rate in a 5-point Likert scale (1= strongly disagree to 5=strongly agree) 30 worldwide fashion brands (e.g I consider Zara a luxurious brand). The selection of the fashion brands are based on the ranking of the most valuable fashion brands in 2021 by Brandirectoy. To ensure that participants are familiar with the fashion brands and their responses are valid, an option is added to write which brands were unknown to them. The brands that were unknown to the respondents were reported in SPSS as missing values. None of the students that participate in the pre-test are part of the main experiment. The selection of the participants is based on convenience sampling, from researcher's circle. The survey is conducted online through Qualtrics (Appendix A).

Results from the pre-test showed that Rolex was the most luxurious brand ($M=4.90$, $SD=0.308$). However, there was no significant difference statistically between Rolex, Chanel and Gucci ($p < 0.01$). Thus, for the luxury brand Gucci was chosen ($M_{\text{brand luxurious}} = 4.60$, $SD = 0.503$). On the other hand, H&M was considered the less luxurious brand ($M_{\text{brand non-luxurious}} = 1.35$, $SD = 0.489$). Gucci and H&M have difference that is statistically significant ($t = 26.421$; $df = 19$ $p < 0.01$). Based on these results, Gucci and H&M are selected for the luxurious brand and non-luxury brand conditions.

After testing what brands are considered luxurious and non-luxurious, it is important also to investigate whether the manipulations are successful and the three conditions of product

placement (permanent, semi-permanent and no-permanent) have a significant statistically difference between them. Thus, a second pre-test is conducted. Consequently, 20 participants are asked to read three case scenarios. Each case scenario has six statements where respondents mark their answers on a 5-point Likert Scale (1= totally disagree to 5= totally agree). The respondents were subject to rate how involved they are in the narrative, evaluate the prominence of the product placement and their level of awareness and recognition of the placed brand. The selection of the participants is based on a convenience sampling, from the researcher's circle. None of the participants in the pre-test are part in the main experiment. The survey is conducted online through Qualtrics (Appendix B).

Results of the pre-test indicated that the manipulations were interpreted by participants as predicted. The permanent product placement, semi-product placement and no- permanent product placement scenarios have a statistically significant difference ($t = 4.034$; $df = 19$ $p < 0.01$). Thus, after conducting a manipulation check, it was found that the manipulations made in the survey are validated to be used for the main experiment for this study.

3.4 Operationalisation and measurements

To answer the research question, this section will discuss the operationalisation and measurements of the variables. Firstly, the operationalisation of the dependent variable purchase intention will be discussed. Then, the operationalisation of the independent variable product placement will be reviewed. Additionally, the second independent variable brand type is discussed. In the end of the section, the operationalisation of the filler questions is discussed.

Purchase intention. To measure purchase intention the scale of Baker and Churchill (1977) is used. Purchase intention is defined as the willingness of a consumer acquiring a product of a particular brand. A Likert scale from 1 (definitely not) to 5 (definitely yes) is used to measure the reactions of the participants towards purchase intention. Examples of items are ' I would like to try the advertised product' and ' I would actively seek out the product in-store and buy it'.

Product placement. To manipulate product placement, three conditions are set: permanent product placement, no-product placement, and semi-product placement. In the permanent product placement condition, the name of the brand is repeated, and a description of the brand is made. In the semi-product placement condition, the brand name is repeated but no brand

description is made. Lastly, in the non-permanent product placement condition, the brand name is mentioned but there is no brand name repetition and brand description made. These conditions are based on the research paper of Gupta and Lord, (1998) and Russell (2002).

Brand type. To manipulate brand type, two conditions are set: luxurious brands and non-luxurious. The two conditions are based on the pre-test conducted where participants rated on a 5-point Likert scale (1= strongly disagree to 5=strongly agree) 30 worldwide fashion brands (e.g I consider Zara a luxurious brand). Results determined which brands were perceived luxurious and which brands were perceived non-luxurious. For this study one brand is chosen for each condition. Hence for the luxury condition, the brand Gucci was chosen and for the non-luxury condition, H&M was chosen.

3.4.1 Operationalisation and measurements for filler questions

In the survey, some questions were filler questions to avoid participants understanding the true purpose of the experiment. Below are the scales used for the filler questions which were brand attitude and product placement attitude.

Brand attitude. To measure the brand attitude the scale of Sengupt and Johar (2002) is used. The brand attitude is defined as a consumer's willingness to respond and exhibit a pleasant or unpleasant reaction concerning a specific brand (Yim et al., 2014). A Likert scale from 1 (strongly disagree) to 5 (strongly agree) will be used. Examples of items are ' I have strong emotional connect with the placed brand' ' I am fond of that brand which is placed in the video game' and 'my opinion of the brand is favourable'.

Product placement attitude. To measure product placement attitude the scale of Gupta and Gould (1997) is used. Attitude toward product placement is the general view of the participants on the use of product placement in a particular setting. A Likert scale from 1 (totally disagree) to 5 (strongly agree) is used to measure the reactions of the participants towards the product placement and not a 3 point Likert scale that was used in the Gupta and Gould (1977) study. Examples of items are ' I like product placement to occur in the video games', ' I don't mind if brand-name products appear in video games', I don't mind if video game producers receive money from advertisers for placing their brands in the video games'.

3.5 Procedure

For the main study, participants are asked to fill out a 4-minute online survey in English. In the introduction page of the survey, participants are told general information about the study and were given a cover story which explained that the aim of this research is to investigate student's perception on the life simulation video games. The reason that the real purpose of the research is not communicated in the survey is to increase participant's focus while reading and filling out the survey and to avoid filling out the survey to fit with the purpose of the study. Next, they read the terms and conditions of the experiment and that they have the right to withdraw at any point. Afterwards, participants are informed that the information is treated confidentially and anonymously as well as the data is used for academic purposes only. Before they proceed to the survey, they accept that are above 18 years old and they are currently enrolled at university (Appendix C).

Each participant is exposed to one of the six different conditions. Random assignment is used to assign participants in one of the six conditions, meaning that each participant has an equal chance to be assigned in one of the conditions. Those conditions are:

	Luxury Brand	Non-Luxury Brand
Permanent Product Placement	30 participants	30 participants
Semi- Permanent Product Placement	30 participants	30 participants
Non-Permanent Product placement	30 participants	30 participants

After being assigned to one of the conditions, participants will be given a video game made up scenario. The scenario is the following: having a made-up successful avatar which goes shopping in the life simulation game on Sims. The reason why a made-up avatar is given is to control for participant's prior interactions and affiliations with a real avatar. Further, to eliminate gender bias, no name of the avatar is given nor the gender and age of the avatar is shown.

After the scenario is given, in the first section, the participants are asked to rate six statements on a 5 point - Likert scale on how they perceive product placement in the case scenario (e.g 'The logo of the brand placed is clear', 'Product placement is noticeable'). An option 'Don't Know' is included in the Likert Scale in case participant's are not familiar with the concept of product placement. Participant's that clicked 'Don't Know' as their answer will be registered in SPSS as missing values. Participants are not allowed to go back to the case scenario throughout the survey. In the second section, to test whether participant's saw the brand placement in the case scenario and that they read the case scenario carefully, they are asked to write down what is the name of the brand present in the case scenario. In addition to that, three questions on a 5-Likert scale are asked about participants' purchase intention in real life after reading the case scenario (e.g 'I have the intention of buying the brand in six months'). The third section is about the attitude toward product placement on video games and brand attitude. In the third section, the questions are filler questions to ensure that participants do not understand the true purpose of the study. To check the attention of the participants the following control question is included 'Select Strongly Agree (5) as your answer' with a Likert scale from 1 (totally disagree) to 5 (strongly agree). Lastly, the survey ends with demographic questions such as age, gender, educational level, and country of origin. Participants are asked to also rate in a 5 point-Likert scale three statements: firstly whether they like playing video games, secondly if they do-in game purchases and thirdly if they spent 2-3 hours playing video games. These questions are present to understand participant's background towards video games. In the last question, participants are asked about the purpose of the study. The responses that show a clear understanding that this experiment is about the effect of product placement on purchase intention will be removed from the data set. Lastly, participants are thanked for participating in the survey and responses are stored in Qualtrics.

Overall, participants are not exposed to any risk, nor offensive material while filling out the survey. Participant's that were interested to know more about this research were informed after the data collection phase was over about the findings of this research.

3.6 Data Analysis

After the two week period of data collection, responses were recorded to Qualtrics and imported to SPSS 20. Firstly, data clearance was necessary to get valid results. This was because some of the participant's responses were missing/not filled out and others did not

meet the requirements to take part of this study. Therefore, to clear the data, missing data were recorded in SPSS as missing values while participant's responses were removed when they were not in the target age and were not able to recognise the brand placement in the case scenario given to them. However, the data clearance has caused that the groups are not the same size but are close enough, thus we can assume Lavene's equal variances in the population based on Levene's *F*-test. While, removing data should be avoided, the unequal sample size is common in experimental research (Vargas et al., 2017).

Table 1. distribution of conditions

		Luxury Brands	Non-Luxury Brands	Total
	Permanent	27	30	57
Product Placement	Semi	33	30	63
	Non-Permanent	29	31	60
Total		89	91	180

To test the validity of the measurements and the reliability of the items within the purchase intention scale, Cronbach's alpha is calculated. The Cronbach's alpha test is preferred in this study due to the benefit of allowing a unique estimate of the internal consistency (Pallant, 2007). According to Nkhoma et al., (2014) a minimum level of 0.7 is advised for the Cronbach's Alpha. The Cronbach's alpha (α) is relatively high ($\alpha = 0.865$) for the *purchase intention* scale which means that the current scale, with all three statements, has very strong internal consistency and no items need to be removed from the scale. The scale thus appears to measure the purchase intention.

To analyse the data, two-way ANOVA analysis is used. Past research has shown that the ANOVA *F* test has been the most popular data-analytic technique among researchers (Keselman et al., 1998). The primary reason to use this method is because this study aims to find interaction between two independent variables (product placement and luxury brands) on the dependent variable (purchase intention). For the results of ANOVA to be valid three assumptions should be fulfilled: normal distribution for each group, the variance for each group should be roughly equal and each group be independent of each other. The groups that

are being compared have roughly equal sample sizes therefore there is no need to test for homogeneity of variances, Levene's test.

In addition, a post hoc test will be used if the results are significant. A post hoc test will be used to uncover specific differences between the three levels of product placement since F test indicates that there is a difference between the groups however does not demonstrate between which groups exactly. The post hoc test used is LSD (Keselman et al., 1998).

4. Results

The previous chapters, the theoretical framework and the methodology section have given the base for the development of the results chapter. The results chapter is divided as follows. Firstly, a short introduction of the analysis conducted (4.1) two-way ANOVA. Then the results of the 3 (permanent product placement, semi-permanent product placement, no-permanent product placement) x 2 (luxury vs non-luxury brands) between subjects ANOVA is shown with the first main effect (4.1.1): brand type on purchase intention, second main effect (4.1.2) product placement type on purchase intention and lastly (4.1.3) brand type and product placement type. These result demonstrate whether product placement of luxury brands and non-luxury brands affects purchase intention.

a. Two-way ANOVA

A two-way ANOVA analysis was conducted with purchase intention (PI_{total}) as the DV and Brand Type and Product Placement were included in the Fixed Factor(s) block as IV.

i. Main effect: Brand type on purchase intention

In this paragraph, the first hypothesis brand type on purchase intention is discussed . ANOVA revealed a significant main effect for the variable brand type on purchase intention, $F(1,174)=10,03$, $p = .002$, $\eta^2 = .05$ which is presented in table 2. This means that there is a difference between purchase intention with the luxury brand and the non-luxury brand. Looking at the mean scores, purchase intention with the non-luxury brand had higher means scores ($M=2.85$, $SD= .96$) compared to the luxury brand ($M=2.39$, $SD=1.00$). In the pairwise comparison, it was found that the difference between the Brand Type is significant ($M_{\text{difference}}= -.466$, $p=.002$). This means that the brand type has an affect on purchase intention. More specifically results show that the non-luxury brand increases more positively the purchase intention in comparison to the luxury brand in the life simulation video games.

As a result, the null hypothesis H01 and H1b are rejected but the H1a is accepted:

H01: The brand type has no affect on purchase intention

H1a: The brand type has an affect on purchase intention.

H1b: Luxury brands will have a more positive effect on purchase intention than non-luxury brands in the life simulation video games.

Table 2. Results of the two-way analysis of variance (N= 180)

	Sum of Squares	df	Mean Square	F	p	η^2
Brandtype	9.73	1	9.73	10.03	.002	.05
PPT	2.65	2	1.32	1.363	.259	.02
Brandtype * PPT	.98	2	.49	.504	.605	.01
Error	168.87	174	.97			
Total	1426.44	180				

ii. Main effect: Product placement type on purchase intention

This paragraph is about the second hypothesis, *product placement type on purchase intention*. ANOVA revealed that there was no significant main effect for the variable product placement type on purchase intention, $F(2,174) = 1.36, p = .259, \eta^2 = .06$. These findings can be seen on the table 2. This demonstrates that product placement has no affect on purchase intention. Looking at the mean scores, purchase intention with the semi permanent product placement has a higher mean score ($M = 2.77, SD = 0.93$) on purchase intention compared to permanent product placement ($M = 2.60, SD = 1.12$) and no-permanent product placement ($M = 2.50, SD = .97$). Since the results are not significant, no post hoc analysis is performed. The product placement has no affect on purchase intention and that there is no specific product placement level that has a significant affect on purchase intention.

As a result, the null hypothesis is supported and H2a and H2b are rejected:

H02: Product placement has no affect on purchase intention in the life simulation video games.

H2a: Product placement affects purchase intention in the life simulation video games.

H2b: Semi-permanent product placement will have a more positive effect on purchase intention compared to permanent product placement in the life simulation video games.

iii. Interaction effect: Brand type and product placement type

The last hypotheses, *the effect of brand type on purchase intention is dependent on the type of product placement* will be analysed in this paragraph. Through the two way analysis of variance found a no significant medium interaction effect between brand type and product placement type, $F(2,174) = .50, p = .605, \eta^2 = .01$. Thus, this means that the brand type has no

significant effect on purchase intention depending on the product placement type. Due to the insignificant results, no tests are further done to explore which conditions have caused the significance. As a sequence, the null hypothesis is supported which led to the rejection of the H3a and H3b.

H03: Purchase intention will not be affected by the brand type placed in the life simulation video game.

H3a: Purchase intention will be affected by the brand type placed in the life simulation video game.

H3b: Semi-permanent product placement will have a more positive effect on purchase intention compared to permanent product placement in the life simulation video games and this effect is stronger for luxury products compared to non-luxury products.

Table 3. Summary of the hypothesis

<i>Hypothesis</i>	<i>Result</i>
H01	Rejected
H1a	Supported
H1b	Rejected
H02	Supported
H2a	Rejected
H2b	Rejected
H03	Supported
H3a	Rejected
H3b	Rejected

5. Discussion & Conclusion

This research has expanded the limited scope of product placement-focused research on the entertainment sector and enhanced our understanding on life simulation video games, providing valuable insights to academics and practitioners on non-traditional marketing techniques, such as product placement and how product placement types of luxury and non-luxury brands affect purchase intention.

Based on the findings, generally speaking brand types have an effect on purchase intention in the life simulation video games. Data confirm that the luxury and non-luxury brands influence positively purchase intention in the life simulation video games. However, it was revealed that the non-luxury brand condition has a more positive effect on the purchase intention in comparison to the luxury brands in the life simulation video games. This means that participants were more willing to purchase H&M compared to Gucci. This finding contradicts the research that supports that the brand with the stronger equity has a stronger purchase intention (Srivastava, 2016). Gucci has a brand equity estimate of \$22.6 billion, double the amount of H&M (its brand equity is of \$12.4 million). However, the sample of this study are college students and according to Ruhland et al., (2020) 88.9% of college students believe that luxury is only for the wealthy and not for the common person. Thus, despite an increasing of purchase power of college students, with corresponding interest in luxury brands, students are financially less independent. This means that purchase intention for luxury brands is highly influenced by the student's financial background. Hence, the financial status of the students may have caused the opposite effect for luxury brands and purchase intention.

Looking at the second main effect, both H2a, H2b are rejected. The results showed that product placement has no significant effect on purchase intention and that none of the product placement types has significant impact on overall purchase intention. This appears to be counterintuitive to the marketers who believe that product placement is an effective tool to advertise brands in the video game platforms and form an active part of the gamer's experience (Williams et al., 2017). Furthermore, in Chan et al., (2016) it was found that product placement is found to be a more persuasive approach in comparison to traditional advertising in terms of affecting consumer's perceptions and behaviour. This is due to being perceived as less intrusive. The results of this study were unexpected and go against previous research that enhances product placement on video games. This is because research has shown that product placement positively affects brand's equity and enhances realism during the video games (Bigné et al., 2011).

According to Cunningham et al., (2016) product placement studies have proven that brand placements can be effective in impacting positively brand attitudes and purchase intentions and enhance product placement popularity as promotional technique. Therefore, considering that previous studies show that product placements are associated with increased purchase intention and sales, for example Friends (sitcom) in Starbucks and New World Coffee, our finding does not provide evidence to support previous research (Panda, 2004).

Overall, there was no significant effect of product placement of luxury and non-luxury brands on purchase intention. This means that purchase intention is not influenced by none of the product placement types of luxury brands and non-luxury brands. While this is not supported by previous studies that find product placement's of brands in computer game very powerful marketing tool, where is possible to target the younger population nonetheless provides evidence to re-consider how effective product placement of luxury and non- luxury brands is in the life simulation video game genre (Williams et al., 2017).

Because no interaction effect was found between brand type and product placement type on purchase intention, perhaps the most important finding of this research is that marketers aiming to use product placement on life simulation video games, focus on using non-luxury brands as their product placement as non-luxury brands are more effective in increasing purchase intention of students compared to luxury brands.

a. Implications

This study has several managerial contributions. Firstly, it provides insights on luxury brand purchase intention that are either unavailable or have not been covered by previous research. This study not only contributes to the literature of non-luxury versus luxury purchase intention through product placement but also adds to the literature on video game industry, and more specifically on the life simulation genre.

Further, this study provides meaningful insights for marketing managers regarding which brand types can influence purchase intention in the life simulation video game genre. More specifically, brand marketers can understand from this study, that the brand type in the life simulation video games plays a role on the willingness of purchasing the brand for college students and that there is higher chance that college students will purchase a non-luxury brand more compared to a luxury brand. This is influenced by the financial background of the college students. Therefore, non-luxury brands should invest more on product placement in life

simulation video games, as college students after being exposed to a non-luxury brand product placement are more inclined to purchase the non-luxury brand. Knowing this finding will make the brand marketer more confident when placing their brand in the video game setting that this will result in a beneficial promotional tool for the venture. Furthermore, this finding will help the video game developer create scheme prices for non-luxury brands that are higher in price compared to a price scheme shown to luxury brands. This is due to the effectiveness of product placement with non-luxury brands.

Besides, from the luxury brand point of view, product placement can be an effective tool as previous research has shown a correlation between luxury product placement brands and purchase intention, however having as your target audience college students is not very practical. This is because existing literature has shown that college students do not have the financial means to even consider purchasing a luxury good. Perhaps, marketers in luxury brands, should consider product placement of specific affordable brand goods (e.g pen, socks etc). Otherwise, this research has shown to luxury marketers that college students are more likely to buy non-luxury brands than luxury brands in the life simulation video games. They should therefore reduce investing to life simulation video games where the target audience is 18-26 years old.

From a practical perspective, the findings of this study suggest to video game developers that life simulation video games hold potential for brands to advertise on. Non-luxury brands should be more inclined to want to be on life simulation video games.

Overall, it can be concluded that our findings have important implications for marketing managers of luxury brands, and video game engineers placing advertising and product placements in the virtual world.

b. Research limitation and future research

Any scientific research contains certain limitations with no exception to the present research. Firstly, the snowball sampling method used appeared to be a limitation for this study. While a non-random method is not ideal for experimental research, it is often chosen by researchers. This is due to its convenience regarding timeframe and resources, nonetheless it has resulted in causing a certain bias. When collecting data, a clear pattern became evident that most of the participants were from similar cultural backgrounds and behaviours. For example, most of the sample were from the Netherlands (23.4%) and Greece (15.6%). This results in findings not being generalisable to a wider population, limiting the external validity of this research. A related opportunity for future research lies in replicating this study, using a more ideal method of collecting participants such as simple random sampling. By using this type method, it ensures that the research will entail high internal and external validity.

A second limitation is that other determinants can influence purchase intention apart from whether the brand is considered luxurious or not and the product placement type placed in the video game scenario. For example, purchase intention in video games can be influenced by the time one user spends in the video game, user's financial background, user's attitude towards the game and towards the brand. Thus, the findings of this research could have been influenced by external factors that were not taken into consideration.

Thirdly, the experiment was based on a questionnaire design which could have influenced the consumer's perception of the product placement and brand type compared to a natural setting, e.g. playing video games. Despite, the manipulation check, questionnaire design lacks the interactive elements that participants expect when playing video games. Thus, to increase the external validity of the findings, it would be interesting to test whether the effects are similar under more normal conditions such as playing video games in the computer/tv and then filling out a questionnaire.

Another limitation is that the current study used a life simulation video game which described a shopping scenario. A shopping scenario in a video game is not the usual video game chosen by men. Research on video game genres has shown that 38% of men mainly play action/shooter related video games (Bosman, 2021). This aspect on the scenario could have detached men and thus affected in a negative way their purchase intention responses since this is a type of video game that men normally do not play.

Considering the mentioned limitations, future research should take into account external factors, such as user's time spent in the video game, user's financial background, user's

attitude towards the game and towards the brand. Cultural differences and marketing characteristics are also worthy of exploration. It would be nice to incorporate marketing characteristics (such as product, price, place/genre of video game) as a mediator into the relationship of product placement (subtle vs permanent) and the willingness to purchase luxury brands. This would give a more concrete overview on how purchase intention of luxury brands is affected in the life simulation video games and to what extent product placement is the most significant contributor to willingness to purchase the brand.

Furthermore, this study only aims to investigate product placement on purchase intention in the life simulation game genre, however it would be interesting to research how product placement affect purchase intention on other video game genres as well. There is a lack of research on video games genres like action-adventure and strategy, despite being the two most profitable video games genres. In addition, future research using other video games genres are encouraged to determine the extent to which this research findings are generalisable.

Lastly, because video games involve a software, to include product placement in the games requires time and effort thus creating a complex relationship between the software developer and the brand. This is because the brand must license the use of the product image and likeness to the game software developer (Bigné et al., 2011). Hence, it would be interesting to research a less traditional approach to product placement in the video game. This involves in creating a game only based in a brand or a branded character. This type of video game is referred to as advergames. There is limited scientific research conducted on advergames so far therefore, future studies could pay more attention to this type of video game which can increase brand's equity and therefore research its effectiveness.

c. Conclusion

So far, there was limited research on luxury brands and little scientific research on product placement in video games genres, more specifically on the life simulation video games genre. Thus, this paper aimed to find insights on this subject with the following research question *'To what extent does product placement of luxury and non-luxury brands affect purchase intention in the life simulation video games?'*

To answer this research question, this research designed an experiment and investigated how the product placement types (permanent product placement, semi-permanent product placement and no-permanent product placement) of the luxury brand Gucci and the non-luxury brand H&M have an impact on the purchase intention of college students. The results of this study found that the brand type (whether the brand was luxurious and non-luxurious) significantly impacts purchase intention. Individuals are more likely to purchase a non-luxurious brand and less likely to purchase a luxurious brand. In addition, findings revealed that product placement does not influence purchase intention, showing that none of the product placement types influenced the purchase intention. While it was hypothesised that the interaction between brand type and product placement type will impact purchase intention, it was found that no matter which product placement type was placed and whether the brand was luxurious or not this did not impact the purchase intention of the individuals. While this study provides meaningful insights for marketing managers regarding which brand types placed in the life simulation video games are effective in influencing purchase intention, there could be other external determinants influencing purchase intention apart from whether the brand is considered luxurious or not. Despite the limitations, the results of the study are generalizable to the target population and are applicable in research towards video games and product placement. Room for future research lies on incorporating factors such as user's financial background, user's time spent on video games and attitude towards the brand into this research.

6. Reference list

- Apparel 50 2021: Brand Value Ranking League Table*. Brandirectory (2022). Retrieved February 7, 2022, from <https://brandirectory.com/rankings/apparel/table>
- Aryani, Y. (2020). The effect of brand image, product quality, and Price on purchase intention. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3642536>
- Baghi, I., & Gabrielli, V. (2018). Brand prominence in cause-related marketing: Luxury versus non-luxury. *Journal of Product & Brand Management*, 27(6), 716–731. <https://doi.org/10.1108/jpbm-07-2017-1512>
- Baker, M. J., & Churchill, G. A. (1977). The impact of physically attractive models on advertising evaluations. *Journal of Marketing Research*, 14(4), 538–555. <https://doi.org/10.1177/002224377701400411>
- Balasubramanian, S. K., Karrh, J. A., & Patwardhan, H. (2006). Audience response to product placements: An integrative framework and future research agenda. *Journal of Advertising*, 35(3), 115–141. <https://doi.org/10.2753/joa0091-3367350308>
- Barton, J. (2021, May 18). *Luxury fashion brands turn to gaming to attract new buyers*. Wired. Retrieved February 7, 2022, from <https://www.wired.com/story/luxury-fashion-brands-video-games-shopping/>
- Becker, K., Lee, J. W., & Nobre, H. M. (2018). The concept of luxury brands and the relationship between consumer and Luxury Brands. *The Journal of Asian Finance, Economics and Business*, 5(3), 51–63. <https://doi.org/10.13106/jafeb.2018.vol5.no3.51>
- Bell, S. (2009). Experimental design. *International Encyclopedia of Human Geography*, 672–675. <https://doi.org/10.1016/b978-008044910-4.00431-4>
- Bigné, E., Küster, I., Hernández, A., Suemanotham, T., & Vila, N. (2011). Product placement in video games as a marketing strategy: An attempt to analysis in Disney Company. *Advances in Advertising Research* (Vol. 2), 3–20. https://doi.org/10.1007/978-3-8349-6854-8_1
- Bleize, D. N., & Antheunis, M. L. (2017). Factors influencing purchase intent in virtual worlds: A review of the literature. *Journal of Marketing Communications*, 25(4), 403–420. <https://doi.org/10.1080/13527266.2016.1278028>

- Bosman, S. (2021, December 3). *Male and female gamers: How their similarities and differences shape the games market*. Newzoo. Retrieved June 1, 2022, from <https://newzoo.com/insights/articles/male-and-female-gamers-how-their-similarities-and-differences-shape-the-games-market>
- Borasi, P. (2021, October). *Gaming simulation market statistics: Industry analysis - 2030*. Allied Market Research. Retrieved June 1, 2022, from <https://www.alliedmarketresearch.com/gaming-simulators-market-A06821>
- Brennan, I., & Babin, L. A. (2004). Brand Placement Recognition. *Journal of Promotion Management*, 10(1-2), 185–202. https://doi.org/10.1300/j057v10n01_13
- Chan, F. F., Petrovici, D., & Lowe, B. (2016). Antecedents of product placement effectiveness across cultures. *International Marketing Review*, 33(1), 5–24. <https://doi.org/10.1108/imr-07-2014-0249>
- Charness, G., Gneezy, U., & Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81(1), 1–8. <https://doi.org/10.1016/j.jebo.2011.08.009>
- Chavadi, C. A., Menon, S. R., & Sirothiya, M. (2019). Modelling the effects of brand placements in movies: An investigative study of event type and placement type. *Vision: The Journal of Business Perspective*, 23(1), 31–43. <https://doi.org/10.1177/0972262918821227>
- Cheah, I., Phau, I., Chong, C., & Shimul, A. S. (2015). Antecedents and outcomes of brand prominence on willingness to buy luxury brands. *Journal of Fashion Marketing and Management*, 19(4), 402–415. <https://doi.org/10.1108/jfmm-03-2015-0028>
- Cheah, I., Liang, J., & Phau, I. (2018). Idolizing “My love from the star”: Idol attachment and fanaticism of luxury brands. *Psychology & Marketing*, 36(2), 120–137. <https://doi.org/10.1002/mar.21163>
- Chen, H., & Deterding, A. (2013). College-aged young consumers' interpretations of product placement in social games. *Young Consumers*, 14(1), 41–51. <https://doi.org/10.1108/17473611311305476>

- Chernikova, A., & Branco, M. (2019). Product placement in computer/video games: An analysis of the impact on customers purchasing decision. *Innovative Marketing*, 15(3), 60–70. [https://doi.org/10.21511/im.15\(3\).2019.05](https://doi.org/10.21511/im.15(3).2019.05)
- Clavio, G., Kraft, P. M., & Pedersen, P. M. (2009). Communicating with consumers through video games: An analysis of brand development within the video gaming segment of the Sports Industry. *International Journal of Sports Marketing and Sponsorship*, 10(2), 39–52. <https://doi.org/10.1108/ijsms-10-02-2009-b005>
- Dale, G., & Shawn Green, C. (2017). The changing face of video games and video gamers: Future directions in the scientific study of video game play and Cognitive Performance. *Journal of Cognitive Enhancement*, 1(3), 280–294. <https://doi.org/10.1007/s41465-017-0015-6>
- Davtyan, D., & Cunningham, I. (2017). An investigation of brand placement effects on brand attitudes and purchase intentions: Brand placements versus TV commercials. *Journal of Business Research*, 70, 160–167. <https://doi.org/10.1016/j.jbusres.2016.08.023>
- Dean, D., & Biswas, A. (2001). Third-party organizations endorsement of products: An advertising cue affecting consumer prepurchase evaluation of goods and services. *Journal of Advertising*, 30, 41-57.
- Dens , N., Pelsmacker, P. D., Wouters , M., & Purnawirawan, N. (2012). *Do you like what you recognize? - JSTOR*. JSTOR. Retrieved June 1, 2022, from <https://www.jstor.org/stable/23353021>
- Dubois, B. and Paternault, C. (1995), “Observations – understanding the world of international luxury brands: the dream formula”, *Journal of Advertising Research*, Vol. 35 No. 4, pp. 69-76.
- Guennemann, F., & Cho, Y. C. (2014). The effectiveness of product placement by media types: Impact of image and intention to purchase. *Journal of Service Science (JSS)*, 7(1), 29–42. <https://doi.org/10.19030/jss.v7i1.8911>
- Gupta, P. B., & Gould, S. J. (1997). Consumers' perceptions of the ethics and acceptability of product placements in movies: Product category and individual differences. *Journal*

of Current Issues & Research in Advertising, 19(1), 37–50.

<https://doi.org/10.1080/10641734.1997.10505056>

Gupta, P., & Lord, K. R. (1998). Product Placement in Movies: The Effect of Prominence and Mode on Audience Recall. *Journal of Current Issues & Research in Advertising*, 20(1), 47-59. <https://doi.org/10.1080/10641734.1998.10505076>

Glass, Z. (2007). The effectiveness of product placement in video games. *Journal of Interactive Advertising*, 8 (1), 1–27.

Herz, B., & Merz, W. (1998). Experiential learning and the effectiveness of economic simulation games. *Simulation & Gaming*, 29(2), 238–250.

<https://doi.org/10.1177/1046878198292007>

Homer, P. M. (2009). Product placements. *Journal of Advertising*, 38(3), 21–32.

<https://doi.org/10.2753/joa0091-3367380302>

Hung, K., Huiling Chen, A., Peng, N., Hackley, C., Amy Tiwsakul, R., & Chou, C. (2011). Antecedents of luxury brand purchase intention. *Journal of Product & Brand Management*, 20(6), 457–467. <https://doi.org/10.1108/10610421111166603>

Hunter, R., & Clark, R. E. (1977). Simulation/Gaming Research. *Educational Technology*, 17(7), 44–46. <http://www.jstor.org/stable/44421191>

Jusufovic-Karisik, V. (2014). 20 years of research on product placement in movie, television and Video Game Media. *Journal of Economic and Social Studies*, 4(2), 98–108.

<https://doi.org/10.14706/jecoss114210>

Keselman, H. J., Huberty, C. J., Lix, L. M., Olejnik, S., Cribbie, R. A., Donahue, B., Kowalchuk, R. K., Lowman, L. L., Petoskey, M. D., Keselman, J. C., & Levin, J. R. (1998). Statistical practices of educational researchers: An analysis of their ANOVA, MANOVA, and Ancova analyses. *Review of Educational Research*, 68(3), 350–386. <https://doi.org/10.3102/00346543068003350>

Kim, M. S., & McClung, S. R. (2010). Acceptability and ethics of product placement in sport video games. *Journal of Promotion Management*, 16(4), 411–427.

<https://doi.org/10.1080/10496491003591386>

- King, D. L., Delfabbro, P. H., Gainsbury, S. M., Dreier, M., Greer, N., & Billieux, J. (2019). Unfair play? video games as exploitative monetized services: An examination of game patents from a Consumer Protection Perspective. *Computers in Human Behavior, 101*, 131–143. <https://doi.org/10.1016/j.chb.2019.07.017>
- Knag, M. (2012). A study of consumers' motivation to purchase luxury brands. *NORGES HANDELSHØYSKOLE*.
- Kong, H. M., Witmaier, A., & Ko, E. (2021). Sustainability and social media communication: How consumers respond to marketing efforts of luxury and non-luxury fashion brands. *Journal of Business Research, 131*, 640–651. <https://doi.org/10.1016/j.jbusres.2020.08.021>
- Kuhn, K., Love, A., & Kope, N. (2004). Brand Placements in Computer and Video Games: An Overview and Research Questions. *Griffith University* .
- Kuss, D. J., & Griffiths, M. D. (2011). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction, 10*(2), 278–296. <https://doi.org/10.1007/s11469-011-9318-5>
- Leemkuil, H. (2020, September). *Review of educational use of games and ... - utwente.nl*. Retrieved March 7, 2022, from https://ris.utwente.nl/ws/files/5156063/review_of_educational.pdf
- Lim, C. H., Kim, K., & Cheong, Y. (2016). Factors affecting sportswear buying behavior: A comparative analysis of luxury sportswear. *Journal of Business Research, 69*(12), 5793–5800. <https://doi.org/10.1016/j.jbusres.2016.04.176>
- Macchion, L., Danese, P., & Vinelli, A. (2015). Redefining Supply Network strategies to face changing environments. A study from the fashion and luxury industry. *Operations Management Research, 8*(1-2), 15–31. <https://doi.org/10.1007/s12063-014-0097-6>
- Makuch, E. (2021, January 15). *Top-selling games and consoles of 2020 revealed for the US*. GameSpot. Retrieved March 6, 2022, from <https://www.gamespot.com/articles/top-selling-games-and-consoles-of-2020-revealed-for-the-us/1100-6486361/>

- Marchand, A., Hennig-Thurau, T., & Best, S. (2015). When James Bond shows off his omega: Does product placement affect its media host? *European Journal of Marketing*, 49(9/10), 1666–1685. <https://doi.org/10.1108/ejm-09-2013-0474>
- Mau, G., Silberer, G., & Constien, C. (2008). Communicating Brands Playfully. *International Journal of Advertising*, 25(5), 827-851. <https://doi.org/10.2501/S0265048708080293>
- Martí-Parreño, J., Bermejo-Berros, J., & Aldás-Manzano, J. (2017). Product placement in video games: The effect of brand familiarity and repetition on consumers' memory. *Journal of Interactive Marketing*, 38, 55–63. <https://doi.org/10.1016/j.intmar.2016.12.001>
- Martí-Parreño, J. (2019). Analyzing the effectiveness of product placement in video games using an experimental design. *SAGE Publications Ltd.* <https://doi.org/10.4135/9781526467409>
- McKenney, J. L., & Dill, W. R. (1966). Influences on learning in Simulation Games. *American Behavioral Scientist*, 10(2), 28–32. <https://doi.org/10.1177/000276426601000205>
- Mohsen, K., Abdollahi, S., & Omar, S. (2018). Evaluating the educational value of simulation games: Learners' perspective. *Innovations in Education and Teaching International*, 56(4), 517–528. <https://doi.org/10.1080/14703297.2018.1515646>
- Moser, C. and Kalton, G. (1993) *Survey Methods in Social Investigation*, 2nd edn, Aldershot: Dartmouth.
- Neuman, W. L. (2014). *Social Research Methods: Qualitative and quantitative approaches*. Pearson.
- Nelson, M.R. (2002) Recall of brand placements in computer/video games, *Journal of Advertising Research* 42(2), 80-92.
- Nelson, M., Keum, H., & Yaros, R. (2004). Advertisement or adcreep: Game players attitude toward advertising and product placement in computer games. *Journal of Interactive Advertising*, Vol. 5, No. 1. Available at: <http://www.jiad.org/article52>. [Accessed 19 June 2009].

- Nkhoma, M., Calbeto, J., Sriratanaviriyakul, N., Muang, T., Ha Tran, Q., & Kim Cao, T. (2014). Towards an understanding of real-time continuous feedback from simulation games. *Interactive Technology and Smart Education*, 11(1), 45–62. <https://doi.org/10.1108/itse-03-2013-0005>
- Nutt, D., & Railton, D. (2003). The sims: Real life as genre. *Information, Communication & Society*, 6(4), 577–592. <https://doi.org/10.1080/1369118032000163268>
- Oeldorf-Hirsch, A. (2017). The sage encyclopedia of communication research methods. *Between-Subjects Design*. <https://doi.org/10.4135/9781483381411>
- Okazaki, S. (2011). *Advances in advertising research (vol. 2) breaking new ground in theory and Practice*. Gabler Verlag.
- Pallant, J. (2007). Checking the reliability of a scale. In Pallant (Ed.), *SPSS survival manual. A step by step guide to data analysis using IBM SPSS* (pp. 101-105). New York, NY: Mc-Graw Hill.
- Panda, T. (2006). Consumer responses to brand placement in films. *South Asian Journal of Management*, Vol. 11, No. 4, pp. 7-25
- Jim Ranalli (2008) Learning English with The Sims: exploiting authentic computer simulation games for L2 learning, *Computer Assisted Language Learning*, 21:5, 441-455, DOI: 10.1080/09588220802447859
- Rashid, M. S., & Chattaraman, V. (2019). Do consumers react differently to sweatshop allegations on luxury and non-luxury brands? A brand entitativity-based account. *Journal of Fashion Marketing and Management: An International Journal*, 23(1), 138–155. <https://doi.org/10.1108/jfmm-12-2017-0139>
- Reydar . (2020, December 9). *Balenciaga & Fashion Gamification: Why brands are gaming in 2021*. Reydar. Retrieved March 6, 2022, from <https://www.reydar.com/fashion-gamification-balenciaga/>
- Richtel, M. (2002, September 17). *Product placements go interactive in video games*. The New York Times. Retrieved June 1, 2022, from <https://www.nytimes.com/2002/09/17/business/product-placements-go-interactive-in-video-games.html>

- Riley, F.D.O, Lomax, W. & Blunden, A. (2006). Dove vs. Dior: extending the brand extension decision-making process from mass to luxury, 12(3), 40-55.
- Romaniuk, J., & Huang, A. (2019). Understanding consumer perceptions of luxury brands. *International Journal of Market Research*, 62(5)(546). <https://doi.org/DOI:10.1177/14707853.989.109>
- Russell, C.A. and Stern, B. (2006), “Consumers, characters, and products: a balance model of sitcom product placement effects”, *Journal of Advertising*, Vol. 35 No. 1, pp. 7-21.
- Sabour, N. I., Pillai, D., Gistri, G., & Balasubramanian, S. K. (2015). Attitudes and related perceptions about product placement: A comparison of Finland, Italy and the United States. *International Journal of Advertising*, 35(2), 362–387.
<https://doi.org/10.1080/02650487.2015.1031205>
- Salehzadeh, R., & Pool, J. K. (2016). Brand attitude and perceived value and purchase intention toward Global Luxury Brands. *Journal of International Consumer Marketing*, 29(2), 74–82. <https://doi.org/10.1080/08961530.2016.1236311>
- Sengupta, J., & Johar, G. V. (2002). Effects of inconsistent attribute information on the predictive value of product attitudes: Toward a resolution of opposing perspectives. *Journal of Consumer Research*, 29(1), 39–56. <https://doi.org/10.1086/339920>
- Sharbatian, A.-L. (2021, March 16). *Council post: The Future of Fashion and gaming: E-commerce*. Forbes. Retrieved March 6, 2022, from <https://www.forbes.com/sites/forbestechcouncil/2021/03/17/the-future-of-fashion-and-gaming-e-commerce/>
- Sharma, G. (2017, June 24). *Pros and cons of different sampling techniques*. International Journal of Applied Research. Retrieved June 22, 2022, from <https://www.allresearchjournal.com/archives/?year=2017&vol=3&issue=7&part=K&ArticleId=4130>
- Siyao, L. (2021). Analysis of Luxury Brand and Consumer Psychology. *Atlantis Press B.V.*, 178, 44–46.
- Sung, Y., & de Gregorio, F. (2008). New Brand Worlds: College Student Consumer Attitudes Toward brand placement in films, television shows, songs, and video games.

Journal of Promotion Management, 14(1-2), 85–101.

<https://doi.org/10.1080/10496490802498272>

Srivastava, R. K. (2016). Promoting brands through product placement in successful and unsuccessful films in emerging markets. *Journal of Promotion Management*, 22(3), 281–300. <https://doi.org/10.1080/10496491.2015.1095831>

Stavljanin, V., Cvijovic, J., & Kostic-Stankovic, M. (2017). Research of indirect advertising in video game industry. *Industrija*, 45(4), 113–132.

<https://doi.org/10.5937/industrija45-16065>

Hadji-Vasilev , A. (2022, March 23). *23 online gaming statistics, facts & trends for 2022*.

Cloudwards. Retrieved June 1, 2022, from <https://www.cloudwards.net/online-gaming-statistics/>

Tina, W., & Buckner, K. (2006). Receptiveness of gamers to embedded brand messages in advergames. *Journal of Interactive Advertising*, 7(1), 3–32.

<https://doi.org/10.1080/15252019.2006.10722123>

Tsai, S-P. (2005), “Impact of personal orientation on luxury brand purchase value”, *International Journal of Market Research*, Vol. 47 No. 4, pp. 429-54.

Truong, Y., McColl, R., & Kitchen, P. J. (2010). Uncovering the relationships between aspirations and luxury brand preference. *Journal of Product & Brand Management*, 19(5), 346–355. <https://doi.org/10.1108/10610421011068586>

Val, C. (2020, September 27). *Why Luxury Brands Love Gaming?* LinkedIn. Retrieved March 6, 2022, from <https://www.linkedin.com/pulse/why-luxury-brands-love-gaming-c%C3%A9sar-val>

Vargas, P. T., Duff, B. R., & Faber, R. J. (2017). A practical guide to experimental advertising research. *Journal of Advertising*, 46(1), 101–114.

<https://doi.org/10.1080/00913367.2017.1281779>

Velasco, M. (2021, August 9). *How luxury fashion is embracing video games - Louis Vuitton burberry animal crossing*. L'Officiel USA. Retrieved February 7, 2022, from

<https://www.lofficielusa.com/fashion/luxury-video-games-louis-vuitton-burberry-animal-crossing-league-of-legends>

Vigneron, F., & Johnson, L. W. (2017). Measuring perceptions of Brand Luxury. *Journal of Brand Management*, 11(6), 484–506. <https://doi.org/10.1057/palgrave.bm.2540194>

Wang, P., Kuah, A. T., Lu, Q., Wong, C., Thirumaran, K., Adegbite, E., & Kendall, W. (2021). The impact of value perceptions on purchase intention of sustainable luxury brands in China and the UK. *Journal of Brand Management*, 28(3), 325–346. <https://doi.org/10.1057/s41262-020-00228-0>

Weustink, J. (2021, December 16). *80% of Gen Z and Millennial Consumers Play Games*. Newzoo. Retrieved March 6, 2022, from <https://newzoo.com/insights/articles/consumer-data-gen-z-millennials-baby-boomer-gen-x-engagement-games-esports-metaverse/>

Wiedmann, K.-P., Hennigs, N., & Siebels, A. (2009). Value-based segmentation of luxury consumption behavior. *Psychology and Marketing*, 26(7), 625–651. <https://doi.org/10.1002/mar.20292>

Williams, K., Petrosky, A., & Hernandez, E. (2017). Product placement effectiveness: revisited and renewed. *Journal of Management and Marketing Research*.

Yi-Cheon Yim, M., L. Sauer, P., Williams, J., Lee, S.-J., & Macrury, I. (2014). Drivers of attitudes toward luxury brands. *International Marketing Review*, 31(4), 363–389. <https://doi.org/10.1108/imr-04-2011-0121>

APPENDICES

Appendix A. Pre-test survey – Determining luxury vs non-luxury brands

Dear participant,

Thank you for participating in this survey. We would like to ask you some questions in regards to what you consider a luxury and non-luxury brand. The survey will last approximately 4 minutes! Your input will mean a lot to my master thesis!

Thank you again for your help and if you have any questions do not hesitate to contact me,
Marilia Zachariadi
MSc Media & Business Thesis Research

I consider Zara a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

I consider Gucci a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

I consider Chanel a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

...

I consider UNIQLO a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

I consider H&M a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

I consider Nike a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

...

I consider Louis Vuitton a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

I consider Adidas a luxurious brand *

	1	2	3	4	5	
Strongly Disagree	<input type="radio"/>	Strongly Agree				

Do you know all brands? If not which one were you not aware? *

Short answer text
.....

Appendix B. Pre-test survey – Manipulation check

Dear all,

Thank you for participating in this short survey! You are asked to read 3 case scenarios. Please read them carefully.

It will take 5 minutes to fill it in. In case for questions or concerns, please contact :
466573mz@student.eur.nl

Marilia Zachariadi

Please read the **first** case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the below store:



You walk around the store and look for items that fit your liking. There are Gucci shirts, Gucci shorts, and Gucci watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I could picture myself in the scene of the events shown in the narrative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was mentally involved in the narrative while reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The narrative affected me emotionally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Product placement is noticeable in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of the brand mentioned in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I recognise product placement in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please read the **second** case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the below store:



You walk around the store and look for items that fit your liking. There are Gucci shirts, shorts, and watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another

avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema below:



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I could picture myself in the scene of the events shown in the narrative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was mentally involved in the narrative while reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The narrative affected me emotionally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Product placement is noticeable in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of the brand mentioned in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I recognise product placement in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please read the **third** case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the below store:



You walk around the store and look for items that fit your liking. There are shirts, shorts, and watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema below:



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I could picture myself in the scene of the events shown in the narrative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was mentally involved in the narrative while reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The narrative affected me emotionally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Product placement is noticeable in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of the brand mentioned in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I recognise product placement in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix C. Survey

Dear participant,

Thank you for taking the time to help me by filling out this survey. This page provides you with information about the study. The survey is for my master thesis at Erasmus University Rotterdam regarding simulation video games.

Your acceptance to participate in this study means that you accept to participate in an experiment.

The purpose of this study is to explore university student's perception of simulation video games. Approximately 180 people will participate in this study.

TIME INVOLVEMENT

Your participation in this study will take approximately 4 minutes. You may interrupt your participation at any time.

PAYMENTS

There will be no monetary compensation for your participation.

PARTICIPANT'S RIGHTS

Participation is completely voluntary with the right to withdraw at any point, for any reason and without any prejudice. All data will be anonymous and confidential. This survey is purely for educational purposes and data is only handled by the researcher (Marilia Zachariadi). The minimum age to participate is 18 years old.

CONTACTS AND QUESTIONS: If you have any questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously if you wish to me: 466573mz@student.eur.nl

Thank you in advance!

I have read the information above and assure that I am at least 18 years of age and currently studying in university. I allow my response to be used for the purpose of this study and I understand that I can withdraw my consent at any time.

By proceeding to the next page I accept the above terms.

Please read the case scenario carefully, and visualize it as a video game scene

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	⊗ Don't Know
The logo of the brand placed is clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know the brand in the scenario description	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of the brand in the case scenario	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product Placement is noticeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could picture myself in the scene of the events shown in the narrative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was mentally involved in the narrative while reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is the name of the brand in the case scenario?

Please indicate the extent to which you agree or disagree with the following statements after reading the case scenario:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have the intention of buying the brand in 6 months	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would actively seek out the brand in store and buy it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to try the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I have strong emotional connection with the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am fond of the brand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My opinion of the brand is very favourable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I don't mind if brand-name products appear in video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't mind if video game producers receive money from advertisers for placing their brands in the video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Select Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like product placement to occur in the video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your age?

What is your gender?

- Male
- Female
- Non-binary / third gender
- Prefer not to say

What is the highest level of school you have completed or the highest degree you have received?

- Less than high school degree
- High school graduate
- Some college but no degree
- Bachelor degree
- Master degree
- PhD degree
- Professional Degree

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I like a lot playing video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do in-game purchases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spent 2-3 hours per week playing video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your nationality?

What is the purpose of the experiment?

Appendix D. Stimulus material

Scenario: Permanent Product Placement with Luxury Brand

Please read the case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. There are Gucci shirts, Gucci shorts, and Gucci watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Scenario: Permanent Product Placement with Non-Luxury Brand

Please read the case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. **There are H&M shirts, H&M shorts, and H&M watches.** You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

-
Scenario: Semi- Product Placement with Luxury Brand

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. There are shirts, shorts, and watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Scenario: Semi- Product Placement with Non-Luxury Brand

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. There are shirts, shorts, and watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Scenario: No-Permanent Product Placement with Luxury Brand

Please read the case scenario carefully, and visualize it as a video game scene:

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. There are Gucci shirts, shorts, and watches. You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Scenario: No-Permanent Product Placement with Non-Luxury Brand

You have an avatar that owns a music store, has a house in Los Angeles, and is 23 years old.

It is a sunny day, you decide to go out shopping. You walk around the neighborhood and you see the following store:



You walk around the store and look for items that fit your liking. **There are H&M shirts, shorts, and watches.** You are very happy to see that you have enough coins to buy all the items you want. You wear them immediately and you go for drinks with another Avatar. During the drinks, they compliment you on the items that you bought.

After the drinks, you go together and watch a movie at the cinema.



You buy popcorn and a soft drink. After the 2-hour movie, you go back home. You feel it was a productive day. You return home very happy.

Appendix E. SPSS output

Tests of Between-Subjects Effects

Dependent Variable: Pltot

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	12.882 ^a	5	2.576	2.655	.024	.071
Intercept	1233.675	1	1233.675	1271.144	<.001	.880
luxurytype	9.731	1	9.731	10.026	.002	.054
PPT	2.645	2	1.323	1.363	.259	.015
luxurytype * PPT	.978	2	.489	.504	.605	.006
Error	168.871	174	.971			
Total	1426.444	180				
Corrected Total	181.753	179				

a. R Squared = .071 (Adjusted R Squared = .044)

Multiple Comparisons

Dependent Variable: Pltot

LSD

(I) Product Placement Type	(J) Product Placement Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Permanent Product Placement	Semi-Permanent Product Placement	-.1643	.18009	.363	-.5197	.1911
	No Permanent Product Placement	.1082	.18221	.553	-.2514	.4678
Semi-Permanent Product Placement	Permanent Product Placement	.1643	.18009	.363	-.1911	.5197
	No Permanent Product Placement	.2725	.17771	.127	-.0783	.6232
No Permanent Product Placement	Permanent Product Placement	-.1082	.18221	.553	-.4678	.2514
	Semi-Permanent Product Placement	-.2725	.17771	.127	-.6232	.0783

Based on observed means.

The error term is Mean Square(Error) = .971.

Descriptive Statistics

Dependent Variable: Pltot

LuxuryType	Product Placement Type	Mean	Std. Deviation	N
LuxuriousBrand	Permanent Product Placement	2.2593	1.14105	27
	Semi-Permanent Product Placement	2.5657	.92603	33
	No Permanent Product Placement	2.3448	.96971	29
	Total	2.4007	1.00652	89
NonLuxuryBrand	Permanent Product Placement	2.9222	1.01967	30
	Semi-Permanent Product Placement	3.0000	.88841	30
	No Permanent Product Placement	2.6452	.96967	31
	Total	2.8535	.96252	91
Total	Permanent Product Placement	2.6082	1.12002	57
	Semi-Permanent Product Placement	2.7725	.92714	63
	No Permanent Product Placement	2.5000	.97328	60
	Total	2.6296	1.00766	180

Reliability Statistics

Cronbach's Alpha	N of Items
.865	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Please indicate the extent to which you agree or disagree with the following statements after reading the case scenario: - I have the intention of buying the brand in 6 months	5.46	4.261	.767	.788
Please indicate the extent to which you agree or disagree with the following statements after reading the case scenario: - I would actively seek out the brand in store and buy it	5.50	4.151	.823	.736
Please indicate the extent to which you agree or disagree with the following statements after reading the case scenario: - I would like to try the brand	4.82	4.594	.647	.898

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	71	39.4	39.4	39.4
	Female	108	60.0	60.0	99.4
	Non-binary / third gender	1	.6	.6	100.0
	Total	180	100.0	100.0	

What is your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	5	2.8	2.8	2.8
	19	9	5.0	5.0	7.8
	20	16	8.9	8.9	16.7
	21	31	17.2	17.2	33.9
	22	41	22.8	22.8	56.7
	23	31	17.2	17.2	73.9
	24	19	10.6	10.6	84.4
	25	16	8.9	8.9	93.3
	26	12	6.7	6.7	100.0
		Total	180	100.0	100.0

Please indicate the extent to which you agree or disagree with the following statements: – I like a lot playing video games

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	29	16.1	16.1	16.1
	Disagree	35	19.4	19.4	35.6
	Neither agree nor disagree	36	20.0	20.0	55.6
	Agree	47	26.1	26.1	81.7
	Strongly agree	33	18.3	18.3	100.0
	Total	180	100.0	100.0	

Please indicate the extent to which you agree or disagree with the following statements: – I do in-game purchases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	72	40.0	40.0	40.0
	Disagree	45	25.0	25.0	65.0
	Neither agree nor disagree	24	13.3	13.3	78.3
	Agree	27	15.0	15.0	93.3
	Strongly agree	12	6.7	6.7	100.0
	Total	180	100.0	100.0	

Please indicate the extent to which you agree or disagree with the following statements: – I spent 2–3 hours per week playing video games

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	53	29.4	29.4	29.4
	Disagree	47	26.1	26.1	55.6
	Neither agree nor disagree	21	11.7	11.7	67.2
	Agree	34	18.9	18.9	86.1
	Strongly agree	25	13.9	13.9	100.0
	Total	180	100.0	100.0	

Statistics

		Please indicate the extent to which you agree or disagree with the following statements: – I like a lot playing video games	Please indicate the extent to which you agree or disagree with the following statements: – I do in-game purchases	Please indicate the extent to which you agree or disagree with the following statements: – I spent 2–3 hours per week playing video games
N	Valid	180	180	180
	Missing	0	0	0
Mean		3.11	2.23	2.62
Median		3.00	2.00	2.00
Mode		4	1	1
Std. Deviation		1.353	1.299	1.431
Variance		1.831	1.688	2.048
Minimum		1	1	1
Maximum		5	5	5
Percentiles	25	2.00	1.00	1.00
	50	3.00	2.00	2.00
	75	4.00	3.00	4.00

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	I consider Gucci a luxurious brand - I consider H&M a luxurious brand	3.250	.550	.123	2.993	3.507	26.421	19	<.001

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Semi_permanent_productplacement1 - No_permanentproductplacement	1.35000	1.49649	.33462	.64962	2.05038	4.034	19	<.001

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Permanent_product_placement1 - No_permanentproductplacement	2.05000	1.50350	.33619	1.34634	2.75366	6.098	19	<.001

Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Permanent_product_placement1 - Semi_permanent_productplacement1	.70000	.97872	.21885	.24194	1.15806	3.199	19	.005