T.C.

İSTANBUL TİCARET UNIVERSITY

INSTITUTE OF GRADUATE SCHOOL

DEPARTMENT OF BUSINESS ADMINISTRATION

MASTER OF BUSINESS ADMINISTRATION (ENGLISH)

THE INFLUENCE OF IN-GAME ADVERTISING INTERACTIVITY ON CONSUMER PURCHASE INTENTION: THE MEDIATING ROLE OF ATTITUDE TOWARD IGA AND THE MODERATING ROLE OF GAME PRODUCT CONGRUENCE

MASTERS THESIS

Ahmed FUAD

Istanbul, 2025

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Y23TBUA002

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Istanbul, 2025

DEDICATION

I dedicate this Thesis/Dissertation to my parents for their endless love, encouragement and incessant support. To my teachers especially Dr. Burak Yaprak who instilled in me the virtues of perseverance and commitment and relentlessly encouraged me to strive for excellence. A special gratitude to my friends for always being there for me through thick and thin.

Ahmed Fuad

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ABBREVIATIONS

IGA – In-Game Advertising

GPC – Game-Product Congruence

CPI – Consumer Purchase Intention

SEM – Structural Equation Modeling

CFA – Confirmatory Factor Analysis

CMV – Common Method Variance

AVE – Average Variance Extracted

CR – Composite Reliability

CMB – Common Method Bias

SRMR – Standardized Root Mean Square Residual

RMSEA – Root Mean Square Error of Approximation

CFA – Confirmatory Factor Analysis

SPSS – Statistical Package for the Social Sciences

AMOS – Analysis of Moment Structures

ABSTRACT

Despite the growing inclusion of IGA in digital marketers' strategies, measuring its effectiveness in terms of driving consumer purchase intentions continues to be a major issue. In immersive gaming environments, traditional advertising models face a daunting challenge to reach the attention of consumers, calling for a more thorough understanding of how interactivity affects engagement and behavior. However, using this interactivity and its effect on purchase intention, previous studies investigated IGA effectiveness, yet explored the role of interactivity, attitude towards the IGA brand, and game product congruence in the purchase intention.

Building on this gap, this study explores how IGA interactivity affects consumers' purchase intention, and this is moderated by game product congruence and mediated through attitude towards IGA brand. Quantitative research design with survey data of active gamers was employed. A structural equation model (SEM) analysis was conducted for the study of key variables relationships. This study finds that IGA interactivity has a significant impact on the purchase intention of the IGA brand directly and indirectly through attitude toward the IGA brand. In addition, game-product congruence enhances the strength of this relationship, implying the importance of contextual matching within IGA strategies.

This study offers a novel view, integrating transportation theory, of how a medium in which consumers truly feel they are part of the environment influences consumer behavior, and advances theory and practice in digital marketing.

Keywords: In-Game Advertising, Interactivity, Purchase Intention, Attitude Toward the Brand, Game-Product Congruence, Transportation Theory

ÖZET

Dijital pazarlamacıların stratejilerinde IGA'nın (Oyun İçi Reklamcılık) giderek daha fazla yer almasına rağmen, tüketici satın alma niyetlerini yönlendirme açısından etkinliğini ölçmek hâlâ önemli bir sorundur. Sürükleyici oyun ortamlarında, geleneksel reklam modelleri tüketicilerin dikkatini çekme konusunda büyük bir zorlukla karşı karşıyadır ve bu da etkileşimin katılım ve davranış üzerindeki etkisinin daha derinlemesine anlaşılmasını gerektirmektedir. Önceki çalışmalar IGA'nın etkinliğini ve bu etkileşimin satın alma niyeti üzerindeki etkisini incelese de, etkileşim düzeyi, IGA markasına yönelik tutum ve oyun-ürün uyumunun rolünü yeterince araştırmamıştır.

Bu boşluktan yola çıkarak, bu çalışma IGA etkileşiminin tüketicilerin satın alma niyeti üzerindeki etkisini incelemekte ve bu ilişkinin, IGA markasına yönelik tutum aracılığıyla dolaylı olarak ve oyun-ürün uyumu tarafından da düzenlenerek (moderasyon yoluyla) şekillendiğini öne sürmektedir. Araştırma, aktif oyuncularla anket verilerine dayanan nicel bir tasarımla gerçekleştirilmiştir. Temel değişkenler arasındaki ilişkileri incelemek için Yapısal Eşitlik Modellemesi (SEM) analizi yapılmıştır. Araştırmanın bulgularına göre, IGA etkileşimi, IGA markasının satın alma niyeti üzerinde hem doğrudan hem de markaya yönelik tutum aracılığıyla dolaylı olarak anlamlı bir etkiye sahiptir. Ayrıca, oyun-ürün uyumu bu ilişkiyi güçlendirmektedir; bu da IGA stratejilerinde bağlamsal uyumun önemine işaret etmektedir.

Bu çalışma, tüketicilerin gerçekten ortamın bir parçası olduğunu hissettiği bir medya aracılığıyla tüketici davranışının nasıl etkilendiğini açıklayan “taşınma teorisini” (transportation theory) entegre ederek özgün bir bakış açısı sunmakta ve dijital pazarlama alanında kuramsal ve pratik katkılar sağlamaktadır.

Anahtar Kelimeler: Oyun İçi Reklamcılık, Etkileşim, Satın Alma Niyeti, Markaya Yönelik Tutum, Oyun-Ürün Uyumu, Taşınma Teorisi.

CHAPTER 1

INTRODUCTION

1.1 Introduction

As digital interactions suffuse today's market, digital platforms revolutionized advertising allowing brands to find new ways to interact with consumers (Pellegrino, 2024). Due to the growth of digital content consumption (Hussain et al., 2022), AdBlock technology (Shattuc, 2020), and consumer preference (Hussain et al., 2022), traditional advertising channels (i.e. television and print media) have become less effective. To respond to this, in-game advertising (IGA) has become an effective marketing strategy to integrate brand messages into digital gaming environments via a nondisruptive, engaging manner through the integration of interactive brand placements (Ghosh & Dwivedi, 2022; Engka et al., 2021). With the global revenue of the gaming industry expected to amount to $522 billion in 2025 (Statista, 2024), IGA is becoming an area important for brand investments to tap into its highly engaged audience (Hussain et al., 2022). Unlike conventional advertising, the IGA merges its ads in a more seamless, immersive way (Zagni & Pera, 2024), which is different from traditional ad fatigue and consumer avoidance (Pahari et al., 2024). However, despite its growing prevalence, research questions the effectiveness of IGA in changing consumer attitudes and influencing purchase intention (Vashisht & Royne, 2019; Vashisht & Chauhan, 2017). Lastly, the psychological impact of interactivity in IGA on the players is underdeveloped as it impacts consumers' perceptions and behaviors (Hussain et al., 2022).

Interaction in IGA is the relationship entailed with the extent of advertiser/player interactivity within the video game (Vashisht & Chauhan, 2017). Literature has suggested that advertisements are more persuasive with an increased level of user involvement and emotional

attachment (Liu & Shrum, 2002). Therefore, interactivity in the context of digital games promotes a sense of presence and transportation (being deeply immersed in the game world), which increases receptivity (Green & Brock, 2000; Hilken et al., 2018). Drawing on transportation theory, we posit that consumers who are immersively engaged in the narrative experience will form a more positive attitude toward the embedded content (Van Laer et al, 2014), given that modern video games provide high levels of narrative complexity and user control.

While existing research has established the effectiveness of IGA interactivity in engaging players, a critical gap remains in understanding the underlying psychological mechanism that connects interactivity to purchase intention. Prior studies suggest that an engaging and immersive game environment fosters favorable consumer-brand relationships (Vashisht, 2021; Vashisht et al., 2020). However, the attitude-behavior framework (Ajzen, 1991) proposes that attitude toward the advertised brand impacts purchase decisions (Hsiao et al., 2022). Accordingly, Hsiao et al. (2022) found that players harboring a positive attitude towards the IGA brand will be more willing to have a positive attitude toward the IGA brand in-game advertising due to potential purchase intention. Therefore, the literature highlights the need for further investigation into how the IGA interactivity affects attitude formation toward advertised brands and then consumption behavior.

Additionally, the impact of IGA on user reactions is also understudied from the perspective of the game product congruence (GPC). The term GPC is game product congruence (A.K.A. degree of alignment between the game's theme and the product being advertised) (Lee & Faber, 2007). Thus, high congruence improves the realism of brand placements, giving them a feel 'of an organic part of the gaming experience, rather than intrusive advertisement' (Vashisht, 2021). Therefore, congruent brand placements affect brand recall, consumer attitudes, and purchase intentions (Chaney et al., 2018; Martí-Parreño et al., 2017). However, incongruent placements

contradict immersion, creating reactance and lessened ad effectiveness (Soebandhi & Adriansyah, 2017). Consequently, GPC should be considered a moderating variable between attitude toward brand of IGA and purchase intention, thereby allowing a more detailed understanding of the effectiveness of IGA.

This study seeks to address these research gaps by developing a comprehensive conceptual framework grounded in transportation theory. Specifically, it investigates how IGA interactivity influences consumer attitudes toward the IGA brand, how this attitude mediates the effect of interactivity on purchase intentions, and how game-product congruence moderates the attitude-purchase intention relationship. Through the integration of these constructs, the research provides a better understanding of the IGA dynamics, and these help both academia and industry. This will help advertisers find ways to enhance interactive parts and brand placements inside games for more engaged and conversion-rate consumers.

1.2 Problem Statement

The global digital gaming industry has evolved into a multi-billion-dollar market, with in-game advertising (IGA) emerging as a critical tool for brand engagement. By 2025, the global IGA market is projected to exceed $522, reflecting its growing significance in digital marketing (Statista, 2024). In Pakistan, the gaming industry is experiencing rapid expansion, with an estimated 25 million active gamers and a 20% annual growth rate (Hussain et al., 2022; PUBG Mobile Statistics, 2025). This surge in gaming popularity provides an opportunity for brands to leverage immersive IGA formats to influence consumer behavior. However, the effectiveness of IGA interactivity in shaping purchase intentions remains underexplored, particularly in emerging economies with distinct consumer behaviors (Hussain et al., 2022).

However, interactive IGA, such as branded vehicles, dynamic billboards, and product placements can greatly boost consumer engagement and brand recall (Ghosh & Dwivedi, 2022). However, the role of IGA interactivity in purchase intention is still ambiguous and requires further research. Furthermore, attitude toward the IGA brand is found to be an important mediating variable, which contours how consumers view and engage with interactive ads. In addition, the moderating role of GPC is possible, such that ads fitting in naturally with the gaming environment may enhance consumer receptivity.

For Pakistan, where digital gaming has been evolving into a dominant entertainment medium, understanding the strategic value of IGA interactivity holds significant importance for advertisers looking to optimize their campaigns. Therefore, this study empirically investigates the direct and indirect effects of IGA interactivity on purchase intention, that brand attitude mediates the effects of IGA interactivity, and GPC moderates the effects. The insights from these findings will help marketers, game developers, and governments to create more engaging and efficient advertising strategies in a dynamic digital environment.

1.3 Research Objectives

- This study will examine the impact of the IGA interactivity on consumers' Purchase intention.
- To examine the impact of the interactivity of IGA on consumers' attitudes towards IGAs.
- To examine the impact of consumers' attitudes towards IGA Brand on consumers' Purchase Intention.
- To examine the mediating effect of consumers' attitudes toward IGA on the relation between IGA interactivity and purchase intention.
- To analyze the moderating role of Game product congruence in the relationship between attitudes toward IGAs and consumer purchase intention.

1.4 Research Questions

To address the research objectives, the study aims to answer the following questions:

- Does the interactivity of IGA influence consumers' attitudes toward IGAs?
- Do consumers' attitudes toward the IGA brand impact their purchase intention?
- Do IGA interactivity impact consumers' attitudes toward the IGA brand?
- Do consumers' attitudes toward IGAs mediate the relationship between IGA interactivity and purchase intention?
- Does game-product congruence moderate the relationship between attitudes toward IGAs and consumer purchase intention?

1.4 Operational Definitions of Variables

1.4.1 IGA Interactivity

IGA is “the integration of nonfictional products and brands within the playing environment of video and computer games through simulated real-life marketing communications mechanisms” (Smith et al., 2014, p. 99). Higher interactivity enhances consumer engagement, fostering a more immersive brand experience (Hussain et al., 2022).

1.4.2 Attitude Toward IGA Brand

Attitude toward the IGA brand represents a consumer’s perception and evaluation of the advertised brand, shaped by their experience and interaction with the IGA (Lee & Faber, 2007). A favorable attitude can enhance brand recall and purchase intention (Mishra & Malhotra, 2021).

1.4.3 Purchase Intention

Purchase intention refers to the likelihood that a consumer will buy a product or service after being exposed to an IGA (Jaafar et al., 2012). It reflects a consumer's readiness and willingness to make a purchase based on brand perception and engagement.

1.4.4 Game-Product Congruence

GPC is the degree to which an advertised brand aligns with the theme, setting, and nature of the game (Lee & Faber, 2007). High congruence provides for high ad effectiveness, as the brand integration is smooth within the gaming environment, lowering consumers' resistance (Husnain et al., 2022).

1.5 Summary

In Chapter 1, the study on IGA interactivity and its impact on consumer behavior is introduced in the context of Pakistan's growing gaming industry. The research gap in what impact the interactive IGAs have on the brand attitude and purchase intention is highlighted. The research objectives are to investigate the mediating role of brand attitude with the moderating effect of game-product congruence. Overall, the significance of the study stems from what it contributes to digital marketing strategies for advertisers and game developers. The chapter finally ends with some research questions and operational definitions for subsequent research on IGA's effectiveness in emerging markets.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction of chapter

This chapter reviews the existing literature to politicize the study. The study critically examines key concepts, theories, and empirical findings concerning the research variables to fill gaps, and places it within academic discourse. This chapter strengthens the study's framework by analyzing prior research and justifying its importance, how it will advance knowledge, and presenting the proposed hypothesis.

2.2 Variables of the study

This study thoroughly examines the four variables, including IGA interactivity, Attitude toward the IGA brand, Game product congruence, and Consumer purchase intention.

2.2.1 IGA interactivity

Aligned with Customer involvement, IGA Interactivity has become a critical variable in affecting consumer engagement, brand perception, and purchase intentions (Yu, 2013). In games, interactivity is a defining characteristic of digital media; users can control and change the experience (Steuer, 1992), and interactivity is a key component of immersive experience, which increases Ad effectiveness (Zhang & Chubotina, 2024). In contrast to passive consumption in traditional advertising, interactive IGAs use the players' active involvement, thereby creating stronger cognitive and emotional bonds with the brand (Van Reijmersdal et al., 2010). The move from static to interactive advertising formats is consistent with the modern-day digital marketing strategy that focuses on user engagement and brand immersion (Wang & Calder, 2009).

Extensive studies have been made of the effect of interactive aspects of digital advertising to consumer attitudes and behavioral patterns. Vashisht (2021) suggests that interactive IGAs enhance the sense of control, which results in greater engagement and purchase intention. The study supports the theory that interactivity facilitates an engaged processing mechanism (Husnain et al., 2022), as it argued that interactivity leads to user participation and message personalization, and thus, a more persuasive advertising experience. In line with the Elaboration Likelihood Model (Petty & Cacioppo, 1984), this assertion contends that interactive elements encourage central route processing, yielding stronger brand associations and stronger persuasion effectiveness.

Additionally, interactivity within IGAs has had correlations to increased brand recall and recognition. Vashisht et al. (2020) found that interactive advertisements in the gaming environment perform better than traditional digital ads in terms of recall and engagement. Literature suggests that interactivity reduces the cognitive load in such a way as to insert brand messages into the gameplay seamlessly and process the advertising content smoothly (Güngör & Çadırcı, 2016). Ghosh & Dwivedi, (2022) also supported this notion that interactive IGAs offer a more immersive experience for the players, thus it is more likely to retain the brand and form a positive attitude about the company. Therefore, IGAs not only capture attention but also facilitate meaningful user interactions to improve brand memorability the findings underlined.

The impact of IGA interactivity extends beyond engagement to affect consumer attitudes towards the brand. Verberckmoes et al., (2016) assert that highly interactive IGAs reduce perceptions of intrusiveness, leading to more favorable brand evaluations. Therefore, when users perceived a higher degree of interactivity, they were less likely to experience ad avoidance behaviors. However, Cheung et al., (2020) have discovered that brands that use interactive

elements in gaming environments are considered more engaging and innovative and establish closer brand-consumer relationships thereby increasing brand loyalty depending on interactivity.

Moreover, studies have also investigated the moderating conditions under which interactive IGAs are effective. Husnain et al. (2022) assert that the success of interactive advertising depends on the compatibility between the game content and the advertised product (GPC). This corroborates the findings of Yang et al. (2020) wherein users' involvement in congruent advertising messages leads to their greater involvement with the advertising messages and the advertisements themselves. Therefore, these insights suggest that interactivity is an important success factor in advertising, however, the effectiveness of interactivity appears to be linked to the quality of fit between the advertising and the game environment.

Although interactivity in IGAs possesses several advantages, it is also prone to more challenges which need to be further studied. For instance, an ad that features a continuous stream of interactivity included in its essence, may overload users' cognition and thus diminish the ad's efficacy as well as irritate them (Tayeb et al., 2021). Additionally, the effectiveness of interactive advertising is different across different consumer segments These findings indicate that advertisers should consider tailoring interactivity by audience segment to maximize engagement and effectiveness.

Consequently, IGA has great potential to generate a higher level of consumer engagement, brand recall, and purchase intentions due to the IGA's interactivity. The literature argues for its role in creating immersive experiences, lessening ad intrusiveness, and establishing strong consumer-brand relationships. Therefore, cognitive overload and differences in consumer preference present challenges that require subsequent research to optimize interactive advertising strategies. However, with the strong position of gaming within the digital entertainment space, it

is critical for advertisers who are aiming to create successful and sustainable ad campaigns in IGAs to fully grasp the intricacies of interactivity in it.

2.2.2 Consumer Purchase Intention

Consumer purchase intention is a well-researched construct in marketing and consumer behavior research, reflecting an individual's probability of purchasing a product or a service due to different psychological affects as well as external factors. Based on the Theory of Planned Behavior (Ajzen, 1991), Theory of Reasoned Action (Fishbein et al., 1975), and cognitive response model of consumer decision making (Bearden et al. et al., 1989), consumer cognition is of critical importance with respect to consumer behaviors, especially purchase intention. Therefore, the Stimulus Organism Response (S-O-R) model posits that advertising and brand presence impact consumer emotions and cognitive processes which, in turn, lead to purchasing (Mehrabian & Russell, 1974).

In interactive media, digital advertising has greatly affected consumers' purchase intention by improving engagement, personalization, and assessed value (Husnain et al., 2022). Interactivity in advertising increases the involvement of consumers resulting in more cognitive and emotional engagement with brand messages, which in turn aids in strengthening purchase intentions (Liu & Shrum, 2002). However, Active consumer responses to digital advertisements are known to stimulate feelings of control and subsequently lead to favorable brand attitudes and increased likelihood of purchase (De Keyzer et al., 2020). Therefore, Interactive brand placements in IGA allow consumers to experience the product in a virtual environment, thus making a direct association between the product and the player (Yu, 2013). Husnain et al. (2022) argue that high interactivity IGAs will, in turn, help reduce audience resistance to advertising while increasing immersion, thereby positively influencing purchase intention. Similarly, Vashisht (2021) finds that

advertisements that resonate with the gaming experience seamlessly integrate with the brand yielding a seamless perception of the brand in terms of its products, and thus, consumers are more receptive to purchasing.

Additionally, consumers who hold positive brand attitudes have greater purchase intention for brands that match their personal preferences and values (MacInnis & Jaworski, 1989). Emotional involvement with a brand lead to purchase intention, improving brand loyalty and trust (Li et al., 2020). Specifically, trust has a profound role in digital ads, as skepticism toward online marketing can reduce purchase intention. Pavlou & Gefen (2004) suggests that trust in digital advertising leads to an increase in consumer confidence, thus increasing purchase intent.

The perceived value of the purchase intention also depends on functional, emotional, and social dimensions (Wells & Tan, 2024). According to Rasoolimanesh et al. (2020), functional value is product utility and performance, emotional value is product brand association with the affective experience, and social value is the influence of peers and socio norms. However, Kim et al. (2019) asserted that consumers evaluate the overall value of a product before making a purchase, and high perceived value generates a stronger intention to buy. Therefore, perceived personalization and relevance of advertisements significantly influence consumer perception of value and its subsequent influence on purchase intention (Bleier & Eisenbeiss, 2015).

Additionally, the synced brand advertisement with the surrounding content allows purchase intention to grow with a seamless and immersive consumer experience (Lee & Faber, 2007). Therefore, GPC increases brand recall, influences consumer attitudes favorably, and enhances their purchase intention. According to van Setthapranai and Thienthawn (2024), advertisements that blend in with the game environments provide stronger engagement in consumers and a higher tendency to buy since they align with the intrinsic motivations and expectations of the players.

2.2.3 Attitude toward the IGA brand

Consumer engagement and purchase intention are highly dependent on brand attitude toward IGA brands. Cognitive, affective, and conative responses shape or set attitudes that are influenced by ad characteristics, user experience, and brand familiarity (Ajzen & Fishbein, 1980). In digital marketing, the growing prominence of IGAs has prompted scholars to study such factors as interactivity, game product congruence, and perceived intrusiveness that can impact consumer attitudes toward IGA brands.

Interactivity is one of the main causes of a positive attitude towards the IGA brands. The interactive IGAs would further engage the players more comparatively, which in turn helps to increase brand recall and emotional attachment (Husnain et al., 2022). Therefore, interactivity increases the cognitive engagement of consumers and supports the elaboration likelihood model (Petty & Cacioppo, 1986) elaborating the fact that interactive units are processed using the central route, which results in stronger brand attitudes. According to Vashisht et al. (2020), interactive IGAs increase immersion and strengthen the emotional connection of their brand to their consumers.

Additionally, consumer attitudes toward IGA brands can be influenced by game-product congruence. Adherence to an advertisement to game congruence in terms of the game's narrative and aesthetics creates a positive impression about the brand that increases consumer receptivity (Chang et al., 2013). This is supported by the match-up hypothesis (Kamins, 1990), which posits that the more congruent the IGA brand and the game environment will be, the more positive the attitude. Zagni and Pera (2016) suggest that IGAs are more highly congruent and were found to elicit favorable attitudes, as they felt more organic and less intrusive.

Perceived intrusiveness significantly affects attitudes toward IGA brands. However, IGAs offer a one-of-a-kind opportunity for seamless brand integration, as players may find them to be too intrusive and commercialized if they break the flow of the game and/or too much brand is being yelled at them (Lee & Faber, 2007). This resistance is explained through the persuasion knowledge model which is proposed that when consumers sense that a message is trying to persuade them, they become defensive and are likely to rate the message and the brand negatively. A study by Sinsap et al. (2024) revealed that while subtle IGAs improve brand perception, excessive repetition can trigger psychological reactance, causing players to develop negative attitudes and avoid the advertised brand.

Brand familiarity and credibility further influence attitudes toward IGA brands. Well-known brands integrated into IGAs tend to be perceived more favorably than unfamiliar ones, as familiarity reduces perceived risk and enhances trust (Kim & Leng, 2017). Yu et al. (2018) argue that strong brand equity leads to more positive attitudes and higher purchase intent. Hernández et al. (2021) found that players exhibit higher engagement with familiar brands, especially when the advertisement enhances their gaming experience. However, when IGAs promote unknown or controversial brands, skepticism, and resistance increase, reducing brand favorability (Van Reijmersdal et al., 2010).

Additionally, consumer attitudes toward IGA brands are influenced by the perceived benefits of the advertisement. IGAs that provide value—such as rewards, exclusive in-game content, or enhanced gameplay—elicit more positive attitudes (Martínez-Navarro & Bigné, 2017). The uses and gratifications theory (Katz et al., 1973) supports this, suggesting that when advertisements fulfill consumer needs (e.g., entertainment, information, or incentives), they generate favorable attitudes. Therefore, consumer attitudes toward IGA brands are multifaceted,

influenced by interactivity, game-product congruence, perceived intrusiveness, brand familiarity, cultural factors, and perceived benefits. A well-designed IGA that seamlessly integrates into the gaming environment, aligns with player expectations and enhances user experience fosters positive brand attitudes. However, excessive commercialization, intrusive placements, and a lack of relevance can lead to negative perceptions, undermining the effectiveness of IGA campaigns.

2.2.4 Game Product Congruence

Game product congruence refers to the alignment between a video game's thematic, aesthetic, and narrative elements and the promotional or commercial products associated with it (Lee & Faber, 2007). The concept extends from broader consumer-brand congruence theories (Sirgy, 1982) and self-congruity theory (Kressmann et al., 2006), which emphasize how consumers favor products that align with their self-image. Studies suggest that when a game's branding and commercial extensions (i.e. merchandise, in-game purchases) are congruent with its core identity, consumer engagement and purchase intention increase (Zhoujie, 2022). The congruity theory suggests that higher congruence between a brand and its surrounding context fosters cognitive fluency, reducing resistance to advertising and enhancing positive brand evaluations (Meyers-Levy & Tybout, 1989). When an advertisement seamlessly integrates into the gaming experience, it is perceived as a natural extension of gameplay, reinforcing brand associations and minimizing ad intrusiveness (van Reijmersdal et al., 2010).

In the gaming industry, congruence between a game's core identity and its associated products enhances cognitive fluency, reducing the mental effort needed to process brand-related stimuli (Kuo & Hou, 2017). Self-congruity does matter a great deal in terms of player engagement and brand loyalty (Jordan, 2018). Therefore, gamers become psychologically owned with the in-

game content and the congruent product extensions are more appealing (Van Dyne & Pierce, 2004).

Empirical studies have shown the importance of product congruence in the gaming market. Nelson et al. (2004) also found that advertisements related to the game atmosphere are perceived to be less intrusive and more effective. Research has also found that in-game purchases (skins, DLC) that are aligned in theme increase perceived value and willingness to pay (Fristedt & Lo, 2019). The success of transmedia extensions (i.e. movie adaptations of games), hinges on perceived narrative and stylistic congruence (Jenkins, 2006). The congruent in-game advertising is processed more conveniently and results in better brand recall and favorable consumer responses (Vashisht & S, 2004). This is particularly significant in immersive gaming environments, where high cognitive load can result in selective attention toward elements that align with gameplay (Cutting & Deterding, 2024). Advergames that are invoked with the genre, theme, and mechanics of the game, make players more engaged with the brand, given that they are signaling the intrinsic motivations of the players (Peters & Leshner, 2013). According to Lewis & Porter (2010), the brands in congruency with the gaming narrative are patronized by the players better than the ones that are incongruent with the same, and the writing of the brands on the nodes in such a way to create an unbroken bond between the brands and the narrative was found to achieve high recall and purchase intention towards the brands.

Industry reports have also stated that gaming franchises with congruent product lines better enhance brand equity. However, the strategy of Epic Games whereby they provide in-game skins that play to the players' persona, has contributed significantly to the revenue (Newzoo, 2021). Moreover, a moderating factor of GPC's effectiveness is player involvement and game type. Congruent brand placements promote an authentic and immersive experience when high-

involvement players (who experience strongly with gameplay mechanics) play with the game but are exposed to congruent brand placements (Zhoujie., 2022). On the contrary, while congruence should be less prominent in shaping brand attitudes in casual gaming contexts, where engagement is lower, players tend to invest less in the game environment, in terms of cognitive and emotional investment (Poels et al., 2012). Furthermore, studies on GPC have shown that brands used in congruent brand placements create more positive brand equity and strengthen the quality of consumer-brand relationships (Russell, 2002).

Even though plenty of research has been conducted on GPC, there are still gaps in the long-term impact on brand loyalty and repeated purchase behavior. As dynamic in-game advertising (new challenge) rises as a real-time brand placement that takes into consideration what the user did in the game, this development presents new challenges in maintaining congruence without disrupting the user experience. The studies for the future should study the role of artificial intelligence and machine learning in optimizing brand game alignment for consumers to achieve maximum engagement. Furthermore, innovations in virtual and augmented reality bring with them increasingly immersive gaming environments, so as concepts of GPC relate to multi-sensory brand experiences, we need to have an understanding of GPC and its appropriateness for successful advertising in digital spaces.

2.3 Hypothesis Development

2.3.1 IGA interactivity and Consumer purchase intention

Consumers aren't just looking at ads, they want to be immersed in the ads. In the face of resistance to advertising in its traditional forms, brands are increasingly seeking immersive and interactive digital experiences that resonate with people and help influence behavior (Prakash et

al., 2024). IGA provides an advantage over passive forms of media, wherein customers can proactively engage in branded content within an extremely engaging and experiential context (Yu, 2013). Despite its increasing popularity, the psychological and behavioral impact of IGA interactivity on purchase intentions remains unexplored (Hussain et al., 2022). Therefore, there is a need to further investigate the impact of interactivity on persuasion and the resulting consumer decision-making.

Gaming environments are particularly interactive: users can control and modify their experiences. Therefore, this feature is key to digital media, which is engraved with the mark of interactivity. In IGA, the term interactivity implies players' capacity to interact with brand content in real-time, both through manipulation of branded items, decision-making in the game, or social interaction towards brand-supported activities (Martínez-Navarro et al., 2019). This active involvement in brand experiences fosters higher levels of cognitive and emotional engagement, influencing attitudinal responses such as brand perception, recall, and purchase intention (Vashisht, 2021). Purchase intention is a critical outcome of advertising effectiveness, defined as a consumer's conscious plan to buy a product based on cognitive evaluations and emotional responses (De Toni et al., 2022; Jaafar et al., 2012). Literature suggests that higher levels of interactivity in digital advertising led to stronger consumer-brand connections, increasing the likelihood of purchase (De Toni et al., 2022). However, Transportation Theory (Green & Brock, 2000) explains how consumers become psychologically immersed in a narrative, reducing counter-arguing and enhancing persuasion. This theory has traditionally been applied to storytelling in television and print media, where structured narratives transport audiences into a fictional world, making them more receptive to embedded messages (Escalas, 2004). In the context of gaming, interactivity intensifies the transportation effect, as players are not merely passive observers but

active participants shaping their own experiences within the virtual world (de Regt et al., 2021; Wang & Calder, 2009).

When brands are seamlessly integrated into gameplay mechanics, consumers experience a fluid and natural interaction with the brand, fostering a sense of presence, engagement, and connection (Vendemia, 2017). Therefore, players who interact highly with IGA are more likely to associate positive emotions with it, which would in turn lead to increased brand attitude and purchase intention (Vashisht et al., 2021). Additionally, interactive advertising causes more emotional reactions than traditional formats of advertising (Hussain et al., 2022). Digital advertising and media psychologists' research suggest interactivity improves cognitive processing, emotional involvement, and brand recall which ultimately affect purchase behavior (Bleier & Eisenbeiss, 2015). According to Vashisht and Chauhan (2017), interactive advertisements can elicit emotions of pleasure and satisfaction and increase the evaluation of the brand and the purchase intention. However, Alsawaier (2018) states that if consumers are actively engaged in an advertisement, they will form stronger brand associations that affirm their willingness to buy the product.

In addition, the use of IGA within consumers' custodial experience contributes to the feeling of psychological ownership by enabling intimate engagement (Martínez-Navarro et al. 2019). Research on experiential marketing indicates that brands that deliver engaging and hands-on experiences can make a lasting, positive impression, and influence purchase behavior (Schmitt, 1999). Therefore, IGA interactivity improves brand awareness and recall and creates profound emotional and cognitive affinities leading to favorable purchasing intentions. Therefore, based on the theoretical and empirical evidence provided, the following hypothesis is proposed:

H1: In-game interactivity results in favorable purchase intentions of consumers in in-game advertising (IGA).

2.3.2 Mediating Role of Attitude toward the IGA

Attitude toward the IGA brand expresses a player's global evaluation of a brand contained in a gaming environment, both cognitively, affectively, and behaviorally (Martí-Parreño et al., 2017). Unlike traditional advertising formats, which foster brand attitudes stemming from conscious and unconscious direct exposure to products as well as experience with products while playing (Hussain et al., 2022), IGA interactivity provides a more immersive and engaging way for players to engage in branded content. This interactive engagement can result in better brand recall, stronger brand association, and an increased intention to purchase (Martínez-Navarro et al., 2019).

Transportation, a psychological state whereby people lose themselves in a narrative environment (Green & Brock 2000), is one of the critical mechanisms through which IGA interactivity influences brand attitudes. Green et al. (2004) suggest that increased immersion in a game would result in players being willing to accept the fictional world as such, and hence, become more emotionally and cognitively engaged. For this reason, interactive IGA can be better integrated into the transportation experience, allowing players to influence branded assets directly without becoming an impediment to the advertising experience while keeping a sense of narrative continuity (Pera & Zagni 2024).

Empirical studies show that interactivity in digital advertising improves professional engagement, attitude formation and brand evaluation (Malhotra et al., 2021). More specifically, interactive advertisements allow for feeling agency and control where users see that they are interacting with the ad as opposed to simply taking in the ad. Therefore, with this greater sense of

control, evaluations of the brand are more positive (Martínez-Navarro et al., 2019). Furthermore, IGA aligns successfully with the game's theme, narrative and mechanics, to become both an enhancing and more ingrained part of the game experience rather than an intrusive distraction (Martí-Parreño et al., 2017).

Literature has suggested that a number of factors influence interactivity in relation to liking of the IGA brand; perceived advertising intrusiveness, engagement and enjoyment, and narrative coherency. The use of traditional in-game advertisements can often cause disruption to the gameplay, resulting in negative brand perceptions (Hussain et al., 2022). Interactive IGA minimizes intrusiveness while integrating brand interaction into the gaming experience, increasing brand perception and immersion (Verberckmoes et al., 2016). Engaging and enjoyable advertisement leads to players having positive attitude towards brand (Malhotra et al., 2021). Interactive ads boost cognitive engagement and are more conducive to producing a more memorable brand experience that is likely to activate positive brand associations (Martínez-Navarro et al., 2019). However, when IGA elements match the game's narrative and mechanics, transportation between the game and advertised brand improves attitude towards both the game and the advertised brand (Martí-Parreño et al., 2017; Green et al., 2004).

When IGA interactivity contributes to the underlying theme of a player's transportation experience, the brand becomes a natural component of the immersive experience, leaving a more positive attitude toward the advertised brand (Malhotra et al., 2021). Ultimately, this positive perception will increase brand engagement, purchase intention and long terms brand loyalty (Zagni & Pera, 2024). The following hypothesis is, therefore, proposed:

H2: IGA interactivity positively influences players' attitudes toward the IGA brand by enhancing their transportation experience.

Consumer behavior within interactive gaming environments depends primarily on the attitude towards an IGA brand with regard to shaping behaviors (i.e. purchase intentions) (Vanwesenbeeck et al., 2017). This attitude represents an individual's overall appraisals about the advertised brand in the game that includes cognitive (i.e. perceived credibility and relevance), affective (i.e. emotional engagement and brand affinity), and behavioral (i.e. willingness to purchase or recommend the brand) appraisals (Mishra and Malhotra, 2021; Lee & Faber, 2007). Consumers with a positive attitude toward an IGA brand not only perceive higher brand recognition and association with the brand, but more significantly, positively influence their consumer decision-making and purchase related behaviors (Malhotra et al., 2021).

According to Elaboration Likelihood Model, messages are processed with a central route (when people are motivated and able to engage in deep cognitive processing) or a peripheral route (when motivation or ability are low) (Petty & Cacioppo, 1986). When players perceive IGA brand as being relevant and well-integrated within the gaming environment, players fall in central route processing where a stronger brand attitude and higher purchase intention take place (Van Laer et al., 2014). However, when IGA brands are regarded as intrusive or irrelevant, players process the messages along peripheral route which results in weaker brand attitudes, lower purchase intent (Gledhill, 2019). Therefore, the effectiveness of an IGA brand in shaping consumer behavior through embedded advertising depends entirely on the extent to which players develop favorable attitudes toward the brand (Jain, 2024).

Literature suggests that consumer response to embedded advertising is positively influenced by positive brand attitudes (Jain, 2024). When consumers perceive brand placements to be engaging and gentle, Dwivedi et al. (2021) demonstrated that they will be more receptive to advertising messages, and brand recall and purchase likelihood to improve. Therefore, seamless

brand integrations in entertainment content affect the attitudes and purchase intentions of the consumer positively (Martínez-Navarro et al., 2019). In the gaming context, Joassard and Capelli (2020) found that players with a positive attitude regarding IGA brands are more likely to have stronger brand associations with the IGA brands, which consequently increases both trust and a willingness to purchase in-game or real-world products.

Additionally, the message provided in the differentiating brand messaging has to align with the experience in the game. IGA well integrated enhances brand credibility and builds trust are two of the critical factors affecting consumer buying decisions (Hussain et al., 2022). Malhotra et al. (2021) suggest that when IGA contributes to gaming as a natural and immersive part of the game, trust in both the game and the advertised brand is increased, leading to greater openness to in-game purchases, such as acquiring virtual goods or buying real-world products. Furthermore, exposure to an IGA brand for a prolonged period and repeatedly in an engaging gaming environment strengthens brand familiarity, fosters positive brand attitudes, and increases purchase intent over time.

In line with this, Transportation Theory (Green & Brock, 2000) supports this relationship, arguing that when individuals are highly cognitively and emotionally involved in a narrative, they are more prone to be receptive to this embedded persuasive message. The more immersed players are in a game, the less they are suspicious of the advertising content in the game, therefore the more the brand message acceptance and the purchase intention will be increased (Van Laer et al., 2014). IGA brands gain from the amplificatory effect of interactive gaming environments due to their players' active engagement in the workings of game mechanics, storylines, and virtual elements leading to greater presence and emotional connectedness with IGA brands (Jain, 2024). Consequently, this research suggests that when in-game advertisements are considered relevant,

engaging, and integrated seamlessly with the gaming environment, this leads to greater brand trust, familiarity, and purchase intent. Based on this, we propose the following hypothesis:

H3: Attitude toward the IGA brand positively influences consumer purchase intention.

In the above discussion, IGA interactivity and attitude towards the advertised brand are found essential for shaping the purchase behavior of the consumers. The gaming environment includes a high level of interactivity, which increases player engagement through immersion and the deep psychological involvement (Martínez-Navarro et al., 2019). This immersive experience fosters the emotional relationship between the player and the game as it relates the advertised brand (Jain, 2024). Interactive elements bring players a sense of control and participation, which boosts the absorption in the game's narrative and increases their enjoyment and attachment to the gaming experience (Zagni & Pera, 2014).

Therefore, attitude towards the IGA brand is an important determinant in the effectiveness of IGA because those players who form a favorable perception towards the brand are more engaged with the advertisement and are more inclined to buy the product (Tabaeeian et al., 2024). Interactivity in a virtual setting has a significant impact on players' attitudinal response (Nguyen et al., 2024) where the interaction quality and intensity increase the strength of the association of players' attitudinal response with the branded brand. However, a positive attitude ultimately results in more emotional resonance of the brand (Lian et al., 2024) which yields better brand message resonance and purchase intention. However, if interactivity is disruptive or intrusive, it might result in negative brand perception, and therefore, IGA will no longer be able to influence the behavior of the consumers.

In addition, the assertions of Transportation Theory further support this mediation mechanism, as IGA interactivity improves player involvement, increasing the player involvement and emotionally engaging them in the storyline of the game (Green & Brock, 2000). Stronger positive sentiments towards the brand (Vashisht & Chauhan, 2017) increase brand recall and purchase odds. However, interactivity creates a sense of psychological absorption and emotional attachment that makes in-game ads feel more naturally integrated thereby making brand messages more effective (Hilken et al., 2018).

Therefore, the effectiveness of the intercepted information of IGA interactivity in redirecting players' purchase intention relies on players' attitudes toward the advertised brand. Moreover, a positive perception of interactivity creates brand engagement and higher consumer responsiveness, which also confirms the role of attitude towards an IGA brand as a primary mediator in the relationship between IGA interactivity and purchase intention. Given these theoretical and empirical insights, a mediation mechanism can be proposed as follows:

H4: Attitude toward the IGA brand mediates the relationship between IGA interactivity and consumer purchase intention.

2.3.3 Moderating Role of Game Product Congruence

GPC is imperative to the conducting of IGA since it dictates how the advertised product aligns with the gaming environment (Lee & Faber, 2007). GPC represents the degree of congruence or similarity between the game and the embedded brand with high GPC engendering an immersive and persuasive experience (Balasubramanian et al., 2006; Russell, 1998). According to Vashisht et al. (2020), advertised brand congruence with the game's setting, narrative, and mechanics when the naturally advertised brand aligns with the game's setting, narrative, and

mechanics enhances the player engagement by reinforcing a positive attitude towards the game, which, in turn, increases the purchase intentions. In contrast, a low level of congruence negatively impacts the gaming experience through cognitive dissonance and diminishes IGA (Martínez-Navarro et al., 2019).

From a Transportation Theory perspective, GPC provides persuasive power by maintaining a stronger link between consumer attitudinal toward brand and purchase intention (Green & Brock, 2000). Advertisements that are perceived by the player as an extension of the game world cause less cognitive disruption and enhance emotional engagement to the brand (Van Laer et al., 2014). Research shows that the greater high congruence, the better ad acceptance (Martí-Parreño et al., 2017), the greater brand realism (Ramram et al., 2018), and the higher the likelihood consumers are willing to buy the advertised product (Green, 2021). Additionally, Vashisht (2021) also found that interactivity in conjunction with congruent advertising improves brand attitudes and makes the advertising more persuasive and less intrusive.

Two key factors of the success of IGA revealed by empirical studies are plot connection and prominence (Gupta & Lord, 1998; Balasubramanian et al., 2006). A well-integrated advertisement such as a luxury car brand in a racing game enhances both brand authenticity and purchase intent (Chaney et al., 2018). However, low congruence placements such as a soft drink ad in a medieval fantasy game break immersion and may lead to negative brand perceptions and lower purchase intention (Soebandhi & Adriansyah, 2017).

In this context, since attitude towards the IGA brand directly impacts purchase intention, GPC becomes an important boundary condition moderating this relationship. However, previous research shows that high GPC fortifies the purchase intention impact of the brand familiarity and the brand response, its direct impact on purchase intention remains unexplored. Hussain et al.

(2018) extend Transportation Theory by demonstrating that the effectiveness of immersive gaming experiences on consumer behavior is contingent upon ad congruence. When brands align with the game's narrative and mechanics, players develop stronger brand attitudes, which translate into higher purchase intent. Conversely, incongruent ads disrupt the gaming flow, reducing engagement and weakening the impact of brand attitudes on consumer behavior (Martínez-Navarro et al., 2019). Thus, based on these theoretical and empirical insights, the following hypothesis is proposed:

H5: Game-product congruence moderates the relationship between attitude toward the game and consumer purchase intention, such that higher congruence strengthens the positive relationship, while lower congruence weakens it.

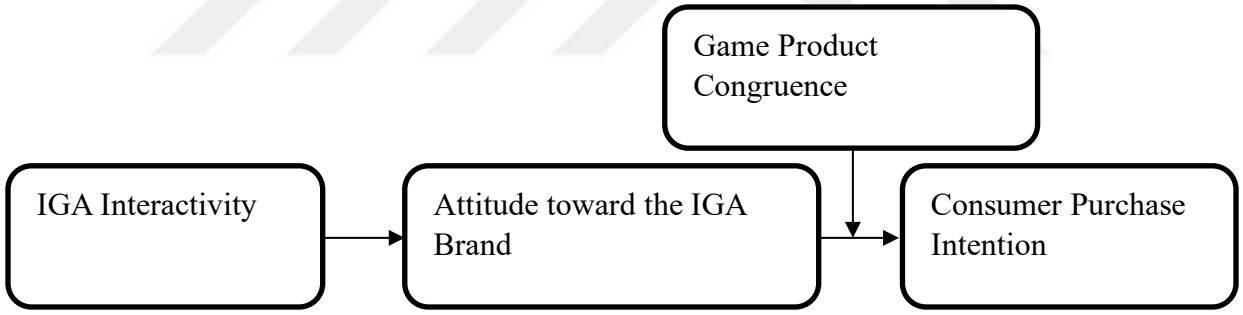


Figure 2.1 Conceptual Framework

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology provides a detailed framework that provides the ways and means to carry out the study to achieve the objectives of the study. It includes research approach, study setting information, time horizon, information about methods of collecting and analyzing data, and so forth. Population, sampling techniques, data collection techniques, and methods of assessment of study variables are elaborated within this chapter. Research implies systematic investigation of problems and phenomena to create new knowledge or to validate existing theories. It entails collecting and analyzing data to make sense of the results. Research methodology provides a roadmap for the whole research inquiry process to have a clear and consistent approach to solving the research questions (Saunders et al., 2009). The theoretical model, research paradigm, and decision regarding quantitative and qualitative techniques are among the key components of this methodology that determine the overall research design. This chapter also discusses the statistical tools and software used to analyze data to get accurate and reliable results. This rigorous methodology has a substantial effect on the arenas of in-game advertising and consumer behavior based on the study's findings.

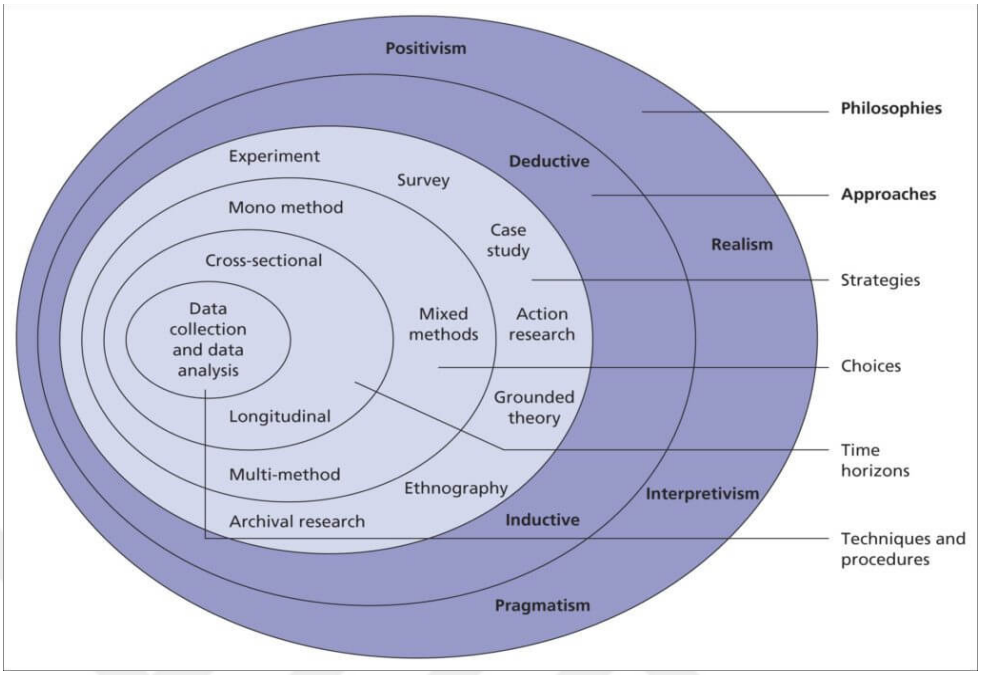


Figure 3.1: The Research Onion (Saunders et al., 2009)

3.2 The Research Onion and Its Application to This Study

This research follows Saunders et al. (2019) Research Onion model which is a structured framework for research methodology development. Multiple layers help make a few important decisions a) concerning the philosophy b) approach c) strategy d) method of data collection. This model is aligned with existing IGA research and this study opens up an industry-appropriate, rigorous research technique.

3.2.1 Research Philosophy

This research is rooted in positivist philosophy research from the outermost layer of the research onion. In contrast, the positivist perspective refers to the idea that objective reality could be looked at and measured by the researcher without the subjective influence involved (Saunders et al., 2019). Therefore, it is the study's fundamental orientation to measure the quantitative influence of IGA degree of interactivity on consumer purchase intention through empirical data

and scientific methods such as to find out the cause-and-effect links between variables, which corresponds to this philosophy. Concerning adopting a positivist stance, the research has the strength to use rigorous, repeatability, capable of producing value-free, and suitable for hypothesis testing or quantitative analysis (Collis and Hussey, 2014).

3.2.2 Research Approach

Research approach refers to an overarching strategy in the systematic dealing with research questions. Therefore, it is classified as deductive and inductive. The deductive approach is a known method beginning from an existing theory or framework, followed by a hypothesis development process, data collection, and finally hypothesis test (Saunders et al., 2019).

3.2.3 Research Strategy

The research strategy outlines the process that should be used to collect, analyze, and interpret data to help achieve the aims of the research. Depending on the chosen research philosophy, approach, and nature of the problem under investigation, the choice is made (Saunders et al., 2019). Common methods include surveys, experiments, case studies, ethnography, grounded theory, archival research, etc. The specific research paradigm defines the strategy best, for instance, quantitative research favors a survey or experiment while qualitative research favors a case study or ethnography (Bryman, 2016).

In this study survey method is used due to its effectiveness in quantitative research to gather standardized data from a large sample of respondents for hypothesis testing and generalizability (Saunders et al, 2019). Consequently, the primary IGA interactivity measure, as well as attitudes towards IGAs, game product congruence, and purchase intention are defined through an adapted self-administer questionnaire based on previous valid studies.

3.2.4 Research Choice

Research choice includes or involves the initiation of a study using quantitative, qualitative, or mixed-method approaches. Research approaches are chosen, based on the research objectives, the nature of the research problem, and the philosophical stance taken (Saunders et al., 2019). Quantitative research is applied with numerical data and statistical analysis to test hypotheses; qualitative research means the exploration of phenomena with non-numerical data, for example, interviews and observations (Pregoner, 2024). However, Mixed methods apply both approaches to use both, to get a holistic picture of the research problem. In this study, thus we selected a mono-method quantitative choice.

Therefore, this fits well with the positivist philosophy of the study using deductive reasoning and hypothesis testing to identify generalizations (Bryman, 2016). The method of using the quantitative method collected the structured data accruable through a self-administered questionnaire and analyzed by the statistical tools based on SEM such as SPSS and AMOS.

3.2.5 Time Horizon

Time horizon describes the period over which data were collected. It can be classified into two types: cross-sectional and longitudinal. However, a cross-sectional time horizon involves gathering data at a single point in time and it is suitable for examining specific phenomena within a stated period (Saunders et al., 2019). On the contrary, a longitudinal period entails repeated observations of the same variables, but over a longer period, designed to analyze changes and trends (Bryman, 2016).

For this study, a cross-sectional time horizon is used. The data will be collected once using a structured, self-administered questionnaire to examine the impact of IGA interactivity, consumer

attitudes, and game product congruence on purchase intention. This approach is efficient and meets the objective of the study to provide a snapshot of relationships between variables over a fixed period.

3.2.6 Unit of Analysis

This study takes the individual PUBG Mobile player in Pakistan who has encountered a McLaren ad in the game as the unit of analysis. However, by focusing solely on individual players, the study can explore their perceptions, attitudes, and purchase intentions influenced by in-game advertisements.

3.2.7 Study Settings

The research is conducted in a non-contrived setting, meaning it takes place in the natural environment of the participants with minimal interference from the researcher. The study observes participants interacting with McLaren advertisements within the gameplay of PUBG Mobile, ensuring real-life behaviors are captured in their natural context. Non-contrived settings are ideal for correlation studies, as they allow for the examination of authentic responses without artificial manipulation. This approach ensures that the findings accurately reflect the participants' genuine attitudes and behaviors.

3.3 Methods

Research Methodology discusses the population of the study, sample and sampling techniques, method of data collection, response rate, and measures of the study.

3.3.1 Population of the Study

The focus of this study is on PUBG Mobile players in emerging markets (i.e. Pakistan) who have interacted with McLaren advertisements within the game. However, emerging markets

are increasingly capturing researchers' attention in the global advertising landscape due to their significant contribution to the world economy, constituting 59% of the global GDP and housing approximately 6 billion people (85% of the global population) (Hussain et al., 2022). These markets present unique consumer attitudes that challenge established advertising models, often rendering strategies effective in developed markets unsuitable for emerging economies like Pakistan.

PUBG Mobile, a leading mobile game, reported approximately 25 million daily active users globally in 2024 (PUBG Mobile Statistics, 2025). In this context, the current study focuses on the Pakistani gaming industry, specifically targeting PUBG Mobile players who have interacted with McLaren advertisements within the game. The gaming industry in Pakistan has witnessed a 20% growth rate, and the country has initiated programs to support young gamers (Jamal, 2021). Moreover, Pakistan ranks 11th in global eSports earnings, generating $25 million annually, signifying its potential contribution to the economy.

To investigate the effect of such in-game advertisements on PUBG Mobile players in Pakistan, this study explores the effectiveness of advertising on such a platform with a gaming environment for the sake of consumer behavior and engagement with promotional messages. Therefore, the study seeks to add critical insight into the advertising of the brands to use innovative advertising methods to engage consumers in emerging markets as per local preference.

3.3.2 Sample and Sampling Technique

Item-to-response ratio theory was used to determine the sample size for this study whereby the total number of scale items should be multiplied by a defined ratio to get a sufficient sample size. The total sample size required to measure the variables under study with 18 items, with a ratio

of 20 replications per item, is 360. Therefore, a minimum of 360 respondents was targeted in this research to achieve the statistics needed for data analysis.

The sampling technique used was convenience sampling. A non-probability method was chosen because it was feasible to reach PUBG Mobile players who had seen McLaren advertisements within the game environment. Etikan et al. (2016) opine that when the target population is dispersed and participation is voluntary, convenience sampling is often suitable. They contacted through gaming forums, social media nodes, and PUBG-specific communities for the relevance and accessibility of the participants. Respondents were assured confidentiality and anonymity of their responses as data was collected via a self-administered questionnaire through Google Forms. However, this approach facilitated efficient data collection and reliable research findings in general.

3.4 Pilot Study

The purpose of the pilot study was to test the reliability of the survey data and to establish whether the questionnaire would be clear to respondents. Therefore, the questionnaire was given to 25 participants to test reliability and the results did not fall below 0.70 which is above the acceptable threshold (Hair et al., 2006).

3.5 Response Rate

Respondents' perspectives were obtained through a self-administered questionnaire-based survey. The survey received a total of 360 questionnaires and all were returned after participants had confirmed to be able to participate in the survey. Google Forms required mandatory response so there were no missing values. After eliminating outliers, 353 valid responses were used in the final analysis, giving an effective response rate of 97.5 percent.

3.6 Measures

The respondents were asked to give their perspectives on this study through a self-administered questionnaire. This research adapted all measures that were used from previous studies, which have proven that they have internal consistency and validity. They were evaluated using a five-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.6.1 IGA Interactivity

The study adopted a three-item scale from Goh and Ping (2014), which showed a reliability value of 0.87. An example item was: “I had interactive exposure to the McLaren vehicle information in PUBG mobile”.

3.6.2 Attitude Toward IGA

Attitude toward IGA was assessed using a five-item scale from Spears and Singh (2005) having a reliability of 0.95. However, scores were recorded on a five-point Likert scale for players’ attitudes towards the IGA during the game. An example item was: ‘My attitude towards the McLaren vehicle product is Favorable’.”

3.6.3 Game-Product Congruence

A 4-item scale from Lee and Faber (2007) was used to measure game product congruence, with a reliability of 0.90. Through a five-point Likert scale, the respondents evaluated the degree of congruence between PUBG and McLaren electric vehicles. An example was “The advertised brand (McLaren vehicle) is a good fit for the advergame context (PUBG mobile).”

3.6.4 Consumer Purchase Intention

The six-item scale proposed by Souiden et al. (2011) to measure consumer purchase intention was validated by Hussain et al. (2022) in the Pakistan context and reported reliability of

0.95. A Cronbach's alpha value of 0.93 was found for the scale to be reliable. A sample item said, "McLaren electric vehicles appeal to me."

3.6.5 Control Variables

Potential differences in game motivations and experience (Vashisht, 2021) are accounted for with control variables (i.e. gender and age).

3.7 Statistical software & technique

For this study, statistical analysis was done using SPSS (Statistical Package for the Social Sciences) and AMOS (Analysis of Moment Structures). In the initial data cleaning, descriptive statistics, and reliability analysis (i.e. Cronbach's alpha) were done to check the internal consistency of the scales using SPSS. Therefore, in AMOS, confirmatory factor analysis (CFA) was conducted to validate the factor structure and to confirm that the model was appropriate for the data. In AMOS, structural equation modeling (SEM) was conducted to examine hypothesized relationships between IGA interactivity, attitude toward IGA, game product congruence, and consumer purchase intention. Mediation and moderation effects were analyzed using SEM and the model was expanded to a more comprehensive analysis of the relationships in the conceptual framework. Through these statistical techniques, the study was able to validate its measures, model fit, and draw valid conclusions from the data collected.

3.8 Summary

In this chapter, the research approach; time frame; study environment; target population; sample size; and sampling techniques are thoroughly outlined. In addition to the description of the data collection method and procedure and procedure for determining the effective response rate, it

consists of the study measure. It finally analyses the statistical structure of the model using structural equation modeling.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter is intended to convey the data analysis and findings from survey responses. Preliminary tests, such as descriptive statistics, reliability and validity assessments, and Structural Equation Modeling (SEM) via AMOS were used to analyze the relationship between variables in the conceptual framework. The structure is systematic to organize findings with respect to the research and hypothesis objectives.

Reliability and validity assessments of the measurement scales are presented at the beginning of the chapter with a description of the demographic characteristics of the respondents. Finally, hypothesis testing results are presented, which signify the relationships of variables. The research questions are then discussed and the implications are based on the findings, which provide a basis for Chapter 5. The objective of this study is to provide an exhaustive analysis of how in-game ads in PUBG Mobile by McLaren impact the consumer's behavior in the Pakistani gaming industry.

4.2 Preliminary analyses

Firstly, preliminary analyses are made to check the validity, reliability, and adequacy of data for testing of the hypothesis. Descriptive statistics, reliability testing, checks for normality, multicollinearity, and common method bias are being taken into consideration in these analyses. These preliminary tests need to be conducted to make sure the subsequent data analysis will be robust and accurate.

4.2.1 Data coding and entry

First, the data was recorded into an Excel spreadsheet and then transferred into SPSS software for analysis to make sure everything remained systematic and accurate. The demographic variables included: age, gender, and Experience in Game with age coded 1 = Less than 25, 2 = 26–35, 3 = 36–45 and 4 = 46 & above, gender-coded 1 = Male and 2 = Female and experience in game coded as 1= <1 year, 2= 1-2, 3=2-4,4=5-6, 5= >7. The research variables were measured with a 5-point Likert scale, where the response was from 1 to 5, with 1 standing for Strongly Disapprove and 5 for Strongly Agree. In SPSS, data integrity was maintained by double-checking the entry process to identify and resolve any errors, and frequency distributions were run to address any inconsistencies or missing values. Therefore, the dataset had variables labeled accordingly SPSS that corresponded with the study's conceptual framework to ensure the dataset is ready for reliability testing and hypothesis testing.

4.2.2 Missing Values

In survey-based studies, missing values frequently arise when there are skipped or neglected parts questions, intentionally or unintentionally (Tabachnick & Fidell, 2007). Therefore, omissions like these can affect the reliability of the study and impair the ability of the findings to be generalized. Moreover, structural equation modeling can be difficult to conduct when there are missing values, as missing values can even impact the overall reliability of the analysis (Tabachnick & Fidell, 2007). However, Sekaran (2003) claims that a dataset is acceptable for analysis when there are less than 15% of the data missing. Data for this study was collected through an online survey using Google Forms to reduce the likelihood of missing values. However, the dataset was ensured to be complete by requiring all mandatory answers to be submitted before the

platform allowed for submission. Consequently, the collected data didn't contain any missing values, thus the integrity and reliability of the analysis were not put in jeopardy.

4.2.3 Outliers

Outliers' identification and management is a critical step in early data screening (Montgomery et al. 2015). Data points that appear significantly different from those of the distribution in a dataset are referred to as outliers (Hair et al., 1998). In this study, outliers were identified using the Mahalanobis distance test, as suggested by Kline (2005). However, 7 out of these responses are identified as outliers based on this assessment and these are subsequently removed from the dataset to improve robustness and representativeness of the final analysis. Following that, analyses were carried out on a more reliable and representative dataset by employing this data augmentation approach.

4.2.4 Data Normality

Preparation of statistical analysis of a hypothesized framework requires assessment of data normality. Therefore, we must ensure that the data follows a normal distribution because this significantly influences the reliability and validity of the analytical outcomes. However, data normality is the pattern for the distribution of specific variables and is similar in shape to the rule curve of normal distribution (Draper & Smith, 2014). Normality of data remains critical when using Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA) to obtain robust results. Izquierdo et al. (2014) opines that normality tests provide statistical significance in research findings.

Histograms and probability plots (P plots) were used to assess data normality in this study, along with measures of skewness and kurtosis. Consequently, these methods assessed whether the

dataset exhibited the features of a normal distribution. This meticulous analysis confirmed that the data met the requirements to be normal, and therefore was fit for further statistical procedures.

4.2.4.1 Skewness and kurtosis

In this study, skewness and kurtosis were used to assess to what degree the dataset conformed to the assumptions of a normal distribution. However, these are extensively recognized for their role in assessing data normality (Hair et al. 1998). Therefore, skewness indicates the degree of asymmetry in the probability distribution of the dataset and kurtosis describes the sharpness or flatness of the distribution curves. All of these together can offer a snapshot of the conformity of our distribution to normality assumptions. Following standard guidelines, skewness values of -1 to +1 and kurtosis levels between -3 and +3 are taken as indicative of the dataset approaching normal distribution. Values outside of these ranges indicate a possible departure from normality (Byrne, 2010). The analysis for this study found that all skewness and kurtosis values were consistently in the prescribed thresholds, which validates our dataset's normality assumptions. Table 4.1 provides a detailed summary of these findings.

Table 4.1: Skewness and Kurtosis

Variables	Skewness	Kurtosis	Variables	Skewness	Kurtosis
IGA1	-0.616	-0.268	GPC2	-0.345	0.065
IGA2	-0.394	-0.652	GPC3	-0.354	0.040
IGA3	-0.461	-0.858	GPC4	-0.300	-0.087
AT-IGA1	-0.635	0.400	CPI1	-0.680	0.558
AT-IGA2	-0.565	0.226	CPI2	-0.717	0.527
AT-IGA3	-0.488	0.285	CPI3	-0.583	0.071

AT-IGA4	-0.543	0.415	CPI4	-0.458	-0.091
AT-IGA5	-0.458	0.282	CPI5	-0.450	-0.029
GPC1	-0.346	0.248	CPI16	-0.279	

Note(s): IGA=IGA Interactivity; AT-IGA= attitude toward the IGA; GPC=Game Product Congruence; CPI=Consumer Purchase Intention.

4.2.4.2 Histogram and P-Plots

In this study, data normality was assessed with histograms and probability plots. Histograms represent data distribution by making discrete intervals (bins), within which we show the frequency of data points. Whereas probability plots (P-plots) compare the observed data against a theoretical distribution usually taken to be a normal distribution, offering a graphical means for assessing the degree of conformity of the data according to expected distribution properties. According to Peat and Baron (2005), a bell-shaped curve in a histogram usually means that the data follow a normal distribution. In probability plots, data points close to a regression line indicate normal distribution assumptions, while deviation from this linear pattern could signify the presence of outliers (Chambers et al., 1983). The data in this study follow the characteristics of a normal distribution as can be seen in Figures 4.1 and 4.2 upon analysis.

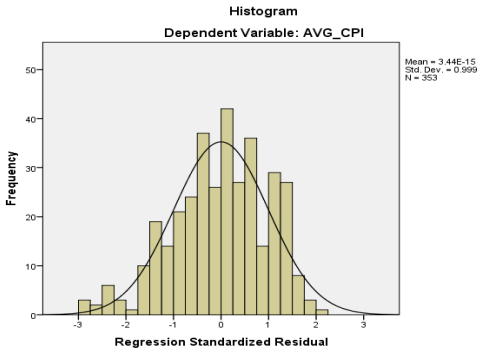


Figure 4.1 Histogram (CPI)

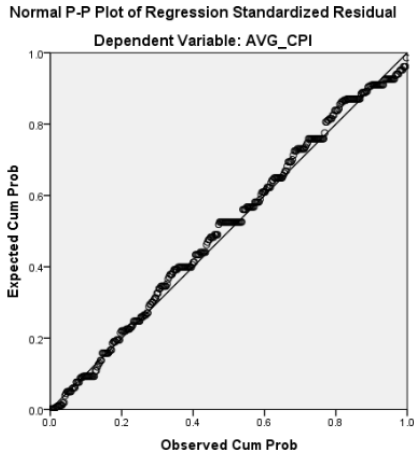


Figure 4.2: P-Plot (CPI)

4.2.5 Reliability Analysis

Reliability analysis is used in the research to be certain of the measurement instruments used, to ensure stability and consistency. It analyzes the precision and dependability of the measures in the study. This research used internal consistency testing using Cronbach's alpha, one of the most widely used reliability coefficients. Hair et al. (2006) state that the commonly accepted value of Cronbach's alpha is 0.70 or greater, however, values greater than 0.50 are considered acceptable in some contexts (Cortina, 1993). The measures employed in this study were drawn from previous research that has consistently yielded reliability coefficients above 0.70. The Cronbach's alpha values for IGA Interactivity in this study were 0.88 and attitude toward the IGA was 0.951. Similarly, Cronbach's alpha values of 0.91 and 0.934 were observed for Game Product Congruence and Consumer Purchase Intention, respectively. Therefore, the high-reliability coefficients for these items attest to the strong internal consistency of the measurement instruments and the credibility and robustness of the data taken.

Table 4.2: Reliability Analysis

Variables	No of items(N)	Reliability
IGA Interactivity	3	0.875
Attitude toward the IGA	5	0.941
Game Product Congruence	4	0.909
Consumer Purchase Intention	6	0.934

4.3 Demographical Analysis

Demographic analysis presents a detailed summary of the study's respondents in terms of key characteristics such as gender and age. Data was gathered using self-administered questionnaires distributed via Google Forms, which included two sections: Data was gathered using self-administered questionnaires distributed via Google Forms, which included two sections: The first was structured to address demographic details while the second encompassed the variables within the proposed framework. The sample included the majority of the male (78.5%) and the female (21.5%) participants. Respondents' ages were categorized into four groups: Under 25 years (66.3%), 25–35 years (24.6%) 35–45 years (8.8%), and over 45 years (0.3). This predominantly represented a young demographic as the largest proportion of the respondents was in the under-25 age range, although respondents in other age groups contributed to the study. This corresponds with Lelonek-Kuleta et al.'s (2021) observation that the vast majority of PUBG Mobile players are young males while the number of female players is fewer. Moreover, demographical analysis of the Game experience of respondents shows that most respondents were playing PUBG of period 2 years.

Table 4.3: Demographical Characteristics of Respondents

Demographics		N	%
Gender	Male	277.0	78.5
	Female	76.0	21.5
Age	< 25 years	234.0	66.3
	26-35 years	87.0	24.6
	36-45 years	31.0	8.8
	> 45 years	1.0	0.3
Game Experience	<1 years	47	13.3
	1-2 years	125	35.4
	3-4 years	105	29.7
	5-6 years	55	15.6
	More than 7 years	21	5.9

4.4 Confirmatory Factor Analysis

This study employed a previously validated questionnaire from prior research and no missing values were present, and the data was normally distributed. Therefore, confirmatory factor analysis (CFA) was conducted using a maximum likelihood estimation method. CFA is a statistical technique for assessing measurement model reliability and validity conducted by comparing the hypothesized model and the collected data. It consists of parameterizing latent factors and their corresponding involved observed variables and evaluating model fit with various indices. However, CFA has been commonly used to assess construct validity and instrument reliability in psychology and social sciences (Hurley et al., 1997).

Validity is an important concept in research and includes content validity which is to insure that your instrument is appropriate and comprehensive and also construct validity that your instrument measures (or does not measure) the intended theoretical construct. The constructs validity is further constituted by the convergent and discriminant validity. Validity of discriminant is testing whether constructs are distinct from one another while its convergent validity is testing whether variables in a construct are highly correlated (Sujati & Akhyar, 2020). The model is evaluated through the testing of convergent as well as discriminant validity. Indices like Comparative Fit Index (CFI), Root Mean Squared Error of Approximation (RMSEA), Normed Fit Index (NFI) were used to determine the model fit. Thus, the reliability and validity of the scale were established as well as each factor's relative importance of the items in assembling that scale. The study also aimed to ensure content validity by getting expert opinions (Bolarinwa, 2015) and ensure model fitness such as rigorously checking data used. The CFA has been performed with individual variables as well as one that is under the same model (Hair et al., 2010; Williams et al., 2009). The adequacy of the model was confirmed by using AGFI, GFI, RMSEA, CFI and the Chi square statistic. RMSEA values (< 0.08) had fulfilled the criteria of acceptable model fit and provided a confidence interval for further validation (Hooper et al., 2008). Further, values higher than 0.90 for CFI, AGFI and GFI indicated that hypothesized model was stable. Carefully reported factor loadings (≥ 0.50) and other indices relevant to CFA provided a detailed assessment of model fit through CFA.

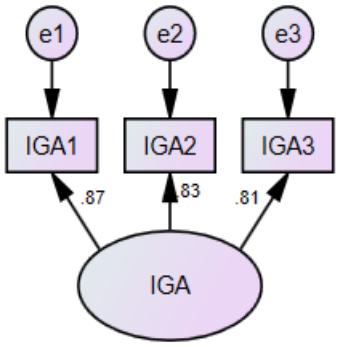


Figure 4.3: CFA-IGA

A three-item scale was used to assess the interactivity of IGA. The fitness of the model and the acceptability of the factor loadings for the items were analyzed. All of the model fit indices were in the acceptable range, with χ^2/df of 1.549, GFI of 0.996, AGFI of 0.978, CFI of 0.994, and RMSEA of 0.04. There were no item covariances (or error term covariances) that were significant so the modification indices were not reviewed and the model was not adjusted. According to Hair et al. (2006), all factor loadings exceeded the recommended threshold of 0.5. Figure 4.3 showed the factor loadings for the items as ranging from 0.81 to 0.87 and these values confirmed an excellent model fit.

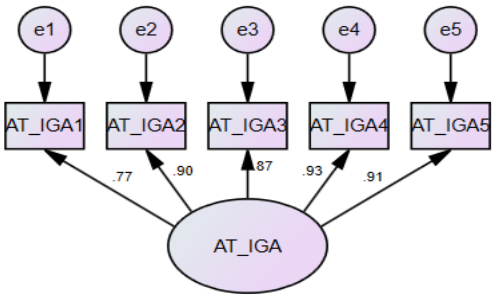


Figure 4.4: CFA-AT_IGA

A 5-item scale was used to measure the attitude toward IGA. The fitness of the model was evaluated to determine its overall fitness and suitability of the factor loadings on the items. The

goodness of fit indices showed that all the model fit indices fall within the acceptable thresholds as the chi-square per degree freedom was 1.994, 0.989 for GFI, 0.967 for AGFI, 0.997 for CFI, and 0.05 for RMSEA. No significant covariances were found between the items or their errors, thus modification indices were not considered and no modifications were needed for the model. All factor loadings were higher than the minimum acceptable value of 0.5 as suggested by Hair et al. (2006). We can see from Figure 4.4 that the factor loadings ranged from 0.77 to 0.91, thus what we have here is a very good model fit.

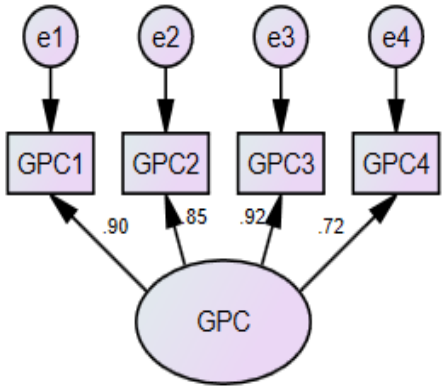


Figure 4.5: CFA-AT_GPC

Game Product Congruence was assessed using a four-item scale. The model's fitness and the appropriateness of the factor loadings were analyzed. Results showed that all model fit indices were within acceptable limits, including $\chi^2/df = 0.505$, GFI = 0.999, AGFI = 0.993, CFI = 0.991, and RMSEA = 0.000. No significant covariances were detected between the items and their error terms, so modification indices were not considered, and no adjustments to the model were necessary. All factor loadings exceeded the recommended threshold of 0.5, as suggested by Hair et al. (2006). The factor loadings ranged from 0.71 to 0.92, as shown in Figure 4.5, confirming an excellent model fit.

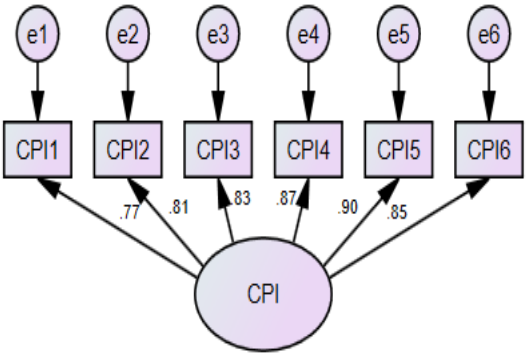


Figure 4.6: CFA-CPI

A six-item scale was used for Consumer Purchase evaluation. The fitness of the model and the validity of factor loadings were analyzed in the analysis. All model fit indices were accepted to accept criteria as $\chi^2/df = 3.627$, GFI = 0.974, AGFI = 0.939, CFI = 0.986 and RMSEA = 0.08. The items and their error terms had little correlation, so modifying indices or changing the model was not of interest. According to Hair et al. (2006), all factor loadings were greater than the recommended minimum value of 0.5. Figure 4.6 shows the factor loadings, which range between 0.77–0.90, demonstrating a strong model fit.

Table 4.4: Confirmatory Factor Analysis

Variables	Items	CMIN/DF	GFI	CFI	RMSEA
IGA Interactivity	3	1.549	0.996	0.994	0.04
Attitude toward the IGA	5	1.994	0.989	0.997	0.05
Game Product Congruence	4	0.505	0.999	0.991	0.00
Consumer Purchase Intention	6	3.627	0.974	0.986	0.08

4.4.1 Whole model

The overall model fit (fit indices and factor loadings) was assessed using AMOS. Fit indices of the analysis included $\chi^2/df = 2.418$, GFI = 0.912, TLI = 0.960, CFI = 0.967, RMSEA = 0.063, and SRMR = 0.03, all yielding fit indices meeting the acceptable standards. These results show that the model performs well and the model is robust. All items had factor loadings in the strong, values ranging from 0.73 to 0.92, well above the recommended threshold of 0.50. This suggests a strong correspondence between the items and their corresponding constructs. The high factor loadings for these loadings are illustrated in figure 4.7, which demonstrates the reliability and validity in which the scale measures the model's constructs.

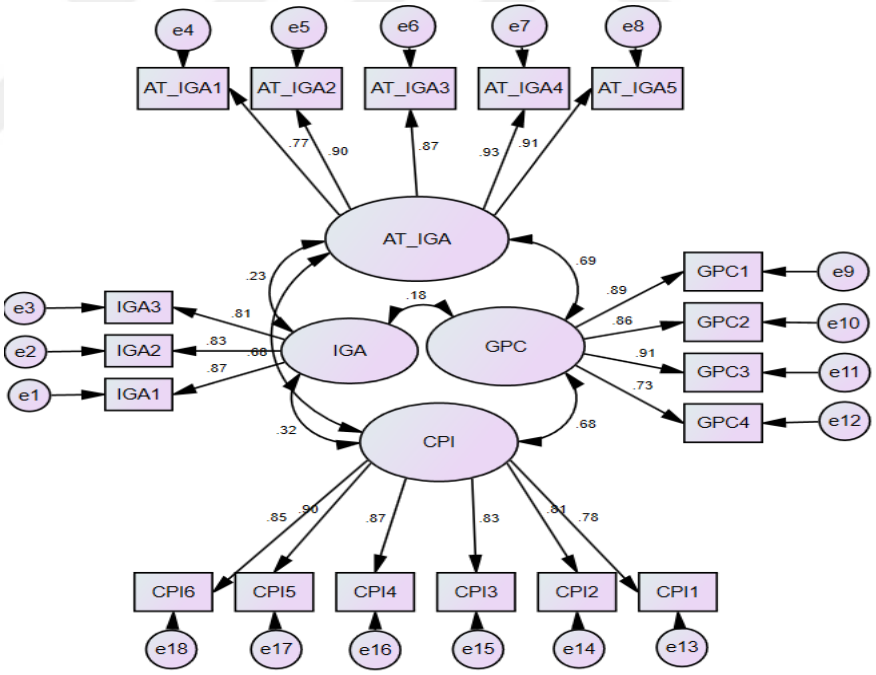


Figure 4.7 CFA-Whole model

4.5 Discriminant and Convergent Validity

Convergent validity refers to a strong correlation between items measuring the same construct above these items that measure other constructs (Sujati & Akhyar, 2020). Correlation analyses assess the correlation between individual items designed to measure a shared construct most often assessed using correlation coefficients (Churchill, 1979). However, discriminant validity verifies to what extent a construct can be differentiated from other constructs (Sujati & Akhyar, 2020; Hair et al., 2010).

Convergent validity is assessed through the CR (above 0.6) and the AVE (above 0.5) (Lam, 2012). Ave values are greater than the Maximum Shared Variance (MSV) (Fornell & Larcker, 1981) thus this validates discriminant validity. Cronbach's alpha coefficients are used to evaluate reliability using the consistency between the data collection instruments. Cronbach's alpha above 0.7 is considered good (Hair et al., 2006). Cronbach's alpha values were calculated in this study using SPSS 22 and all were above the threshold of 0.70. The most reliable attitude towards IGA was Cronbach's alpha of 0.94, while IGA interactive resulted in the lowest 0.87. Table 4.5 shows that attitude towards IGA, has the highest Composite Reliability (CR) at 0.94 and the highest Average Variance Extracted (AVE) at 0.77.

Table 4.5: Reliability and Validity

Variables	**FL**	**A**	**CR**	**AVE**	MSV
IGA1	0.87	0.87	0.877	0.705	0.103
IGA2	0.83				
IGA3	0.81				
AT_IGA1	0.77	0.94	0.943	0.770	0.469
AT_IGA2	0.89				
AT_IGA3	0.87				

AT_IGA4	0.92				
AT_IGA5	0.90				
GPC1	0.89	0.91	0.914	0.727	0.469
GPC2	0.86				
GPC3	0.90				
GPC4	0.73				
CPI1	0.78	0.93	0.935	0.707	0.458
CPI2	0.81				
CPI3	0.82				
CPI4	0.87				
CPI5	0.90				
CPI6	0.84				

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention.

4.6 Descriptive Statistics

Descriptive statistics give a quick summary of key features of a dataset such as distribution, central tendency, and variability. Therefore, this study briefly describes the calculated means and standard deviations of the dataset as fundamental elements of descriptive statistics (Gorad, 2003). The “mean” is the average or central value in the participants’ response while the “standard deviation” tells us how much values in the dataset deviate from the mean. The analysis revealed the following mean values for each variable: Attitude toward the IGA (3.75), IGA Interactivity (3.69), Game Product Congruence (3.42), and Consumer Purchase Intention (3.88). The mean of CPI was highest while that of AT_IGA was lowest. The standard deviation for 0.93 was for IGA and the least standard deviation was 0.78 for GPC. Table 4.6 presents a detailed breakdown of the variables.

Table 4.6: Mean & Standard Deviation

Variables	N	Mean	SD
IGA	353	3.69	0.93
AT_IGA	353	3.75	0.78
GPC	353	3.42	0.76
CPI	353	3.88	0.77

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention.

4.7 Correlation Analysis

Correlation analysis is one of the statistical methods employed to help determine the direction as well as the strength of linear relationships between variables and provides ideas of whether one variable will affect another (Samuel & Okey, 2015; Sekaran & Bougie, 2009). Correlation analysis was performed to investigate the relationship between IGA Interactivity, Attitude towards IGA (AT_IGA), GPC, and consumer intent to buy. This study focused on the correlation analysis related to the IGA Interactivity, Attitude toward the IGA (AT_IGA), GPC, and Consumer Purchase Intention. The results showed that a significant positive association was observed between AT_IGA and IGA ($r = 0.22$, $P < 0.01$). Results also showed that GPC was correlated significantly positively with IGA ($r = 0.18$, $P < 0.01$) and AT_IGA ($r = 0.64$, $P < 0.01$). Similarly, CPI showed strong positive correlations with IGA ($r = 0.29$, $P < 0.01$) and AT_IGA ($r = 0.65$, $P < 0.01$). In addition, there was a highly significant positive relationship between CPI and GPC ($r = 0.66$, $p < 0.01$). Additionally, multicollinearity was not an issue as correlation values were all below the threshold of 0.90 (Tabachnick & Fidell, 2007).

Table 4.7: Correlations Analysis

Variables	IGA	AT_IGA	GPC	CPI
IGA	1			
AT_IGA	0.22**	1		
GPC	0.18**	0.64**	1	
CPI	0.29**	0.65**	0.66**	1

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention.

4.7.1 Harman Single Factor Test

The Harman Single Factor test (Harman, 1976) is a widely used method for evaluating common method bias in survey research. It happens when the measurement method explains a lot more variation in answers than the constructs being assessed (Podsakoff et al., 2003). Despite this, this study applied a technique to evaluate common method bias, and this one component accounted for 49.02% of the variation, which is considerably lower than the 50% criterion (Kock, 2015). This satisfies our concern about common method bias in the data.

4.8 Structural Equation Modelling

Data analysis of any kind requires accurate and sufficient data. For this study, 353 responses were collected from those playing PUBG. The proposed research model was examined using Structural Equation Modeling (SEM). However, Snoj and Mumel (2004) indicate that a sample size of 200 is generally adequate in carrying out SEM. SEM has been utilized in the area of social and management sciences, mainly on account of its ability to explore the relationships among numerous variables (Snoj & Mumel, 2004). SEM is more robust to correlations,

measurement errors, and various latent variables than other hypothesis testing methods, and it is therefore often used widely in contemporary research studies.

For this research, SEM was employed to examine the relationships between the study's variables (i.e. IGA Interactivity, Attitude Toward IGA, GPC and Consumer Purchase Intention). The SEM analysis was conducted in two phases: The validity and reliability of these constructs were first evaluated through factor analysis. In the second phase, a theoretical and conceptual evaluation of the SEM model was carried out. Model fit matrices such as χ^2/df, GFI, SRMR, CFI, and RMSEA were used to deem possible connections between the latent components for assessing the structural model. To ensure that the suggested models fitted the data accurately, several model fit indices were used (Hu & Bentler, 1999).

4.8.1 SEM Model Fitness

Several fit indices were used to evaluate the goodness of fit for the proposed SEM model (χ^2/df, GFI, TLI, CFI, and RMSEA). All fit indices were found to meet baseline standards for model fitness per the analysis. More precisely, the values of the CFI and TLI were above the minimum cut-off of 0.90 (0.94 and 0.95, respectively). Furthermore, χ^2/df, SRMR and RMSEA values were below acceptable thresholds of 1.991, 0.03, and 0.06, respectively. As summarized in Table 4.8, these values were well below the conventional benchmarks of <5 for χ^2/df, ≤0.10 for SRMR, and ≤0.08 for RMSEA. We also analyzed the effects of the model by assessing the chi-square and degrees of freedom of the model. Therefore, the results of the model fit indices showed excellent compliance with the model fit criteria.

Table 4.8: Structural equation modeling model fit

CMIN	TLI	GFI	CFI	RMSEA	CMIN	DF
2.418	0.96	0.91	0.97	0.06	311.895	932

4.8.2 SEM Outcomes

All theoretical connections in the Structural Equation Modeling (SEM) analysis proved solid and statistically significant. The statistical significance of all model relationships indicates their meaningful connections thus validating the model structure for reliability and validity. However, the analysis demonstrates that IGA and CPI demonstrate a powerfully significant connection through the $\beta = 0.17$ ($P < 0.01$) relationship which stresses its relevance within the technical framework.

Additionally, the mediating variable demonstrates a significant positive association with both the independent and dependent variables: IGA-AT_IGA ($\beta = 0.25$, $P \leq 0.01$) and AT_IGA-CPI ($\beta = 0.42$, $P < 0.01$), respectively. The interplay between GPC and CPI reveals a significant positive connection ($\beta = 0.43$, $P < 0.01$). These results strengthen our theoretical understanding of the framework by generating critical knowledge.

Table 4.9: Structure path outcomes

Associations	B	P-value	S.E.
IGA→CPI	0.17	0	0.04
IGA→AT_IGA	0.25	0	0.05
AT_IGA→CPI	0.42	0	0.05
GPC→ CPI	0.43	0	0.04

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention, ** $p < 0.01$.

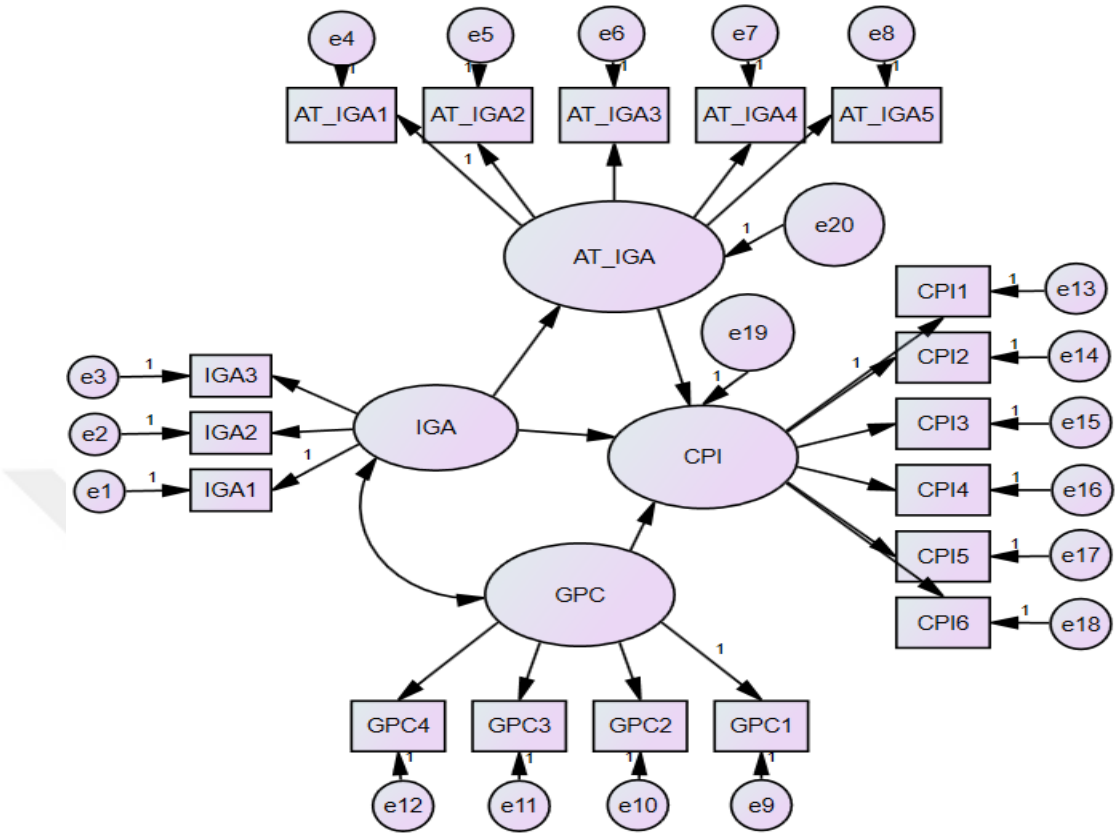


Figure 4.8: Measurement Model (SEM)

4.8.3 Mediation Analysis

A mediation analysis with Attitude toward the IGA (AT_IGA) as a mediator was conducted through a structural model between IGA interactivity and CPI. Findings show that increased IGA leads to higher AT_IGA levels ($\beta = 0.22$, $P < 0.01$) and CPI ($\beta = 0.25$, $P < 0.01$). The data showed that AT_IGA directly influenced CPI alongside a strong positive connection ($\beta = 0.15$) at $P < 0.01$ significance. Furthermore, the analysis showed that IGA produced a direct and statistically substantial effect on CPI ($\beta = 0.15$, $P < 0.01$). Thus, the effect of IGA on CPI occurred partially through AT_IGA mediation ($\beta = 0.05$, $P < 0.01$).

Table 4.10: ***Mediation evaluation***

Hypotheses	**B**	**SE**	**P**	**CR**	**Mediation Effect**		
					Direct Effect	In-direct Effect	Total Effect
IGA→CPI	0.15	0.03	0.00	3.5	0.15	0.05	0.20
IGA→AT_IGA	0.22	0.04	0.00	4.28			
AT_IGA→CPI	0.25	0.04	0.00	6.1			

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention, ** $p < 0.01$.

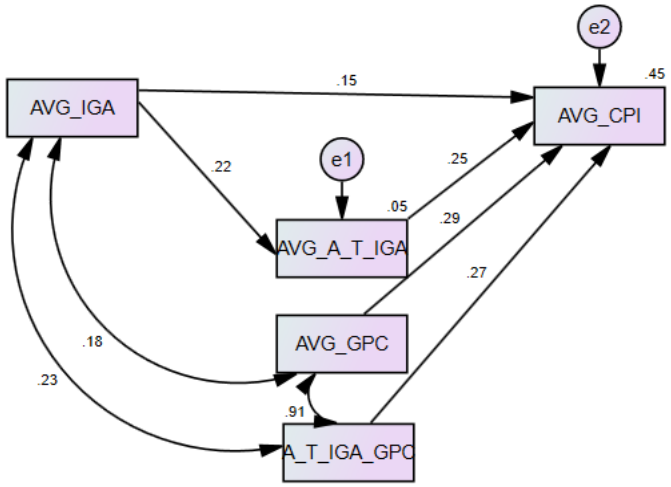


Figure 4.9: Mediation and moderation analysis

4.8.4 Moderation Analysis

The proposed model of this study demonstrates how GPC functions as a moderating influence that impacts the AT_IGA-CPI relationship. The significance of GPC as a moderator becomes evident as the SEM reports the interaction term produces a substantial impact on CPI

evaluation (β= 0.27, P<0.01) shown in Figure 4.9. A moderation evaluation revealed all elements in the model exhibit values within supported standard ranges and GPC functions as a notable moderator that affects the AT_IGA-CPI relationship.

Table 4.11: ***Moderation Analysis***

Hypotheses	B	SE	P	CR
Moderating Role of Game Product Congruence				
AT_IGA →CPI	0.25	0.04	0.00	6.10
GPC→CPI	0.29	0.09	0.00	3.08
AT_IGA× GPC→CPI	0.27	0.01	0.00	2.79

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA; GPC = Game Product Congruence; CPI = Consumer Purchase Intention, ** p < 0.01.

4.9 Summary

This chapter presented an extensive review of data analysis findings. Initial assessment revealed normal data distribution before nurses eliminated 21 outliers from the dataset. The basic assumptions of Structural Equation Modeling acted as a foundation for performing CFA tests of each variable separately to validate the modeled data quality. The CFA results showed all fitness metrics staying within established recommended ranges. Statistical analysis shows that all variable loadings tracked their standardized values. SEM was used following the confirmation step to analyze both mediation effects and moderation patterns in the research hypotheses. Therefore, the analysis results validated the hypothesis formulated in the study.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction of the chapter

This chapter presents a comprehensive discussion of the key findings derived from the study, linking them to existing literature and theoretical perspectives. This chapter critically analyzes the results to shed light on the theoretical as well as practical implications of IGA interactivity on consumer purchase intentions to attitude toward the IGA Brand as a mediator and GPC (geodemographics) as a moderator. Thus, the discussion incorporates elements from previous empirical studies and Transportation Theory (Green & Brock, 2000) to interpret how interactivity within gaming environments influences player engagement, brand perception, and subsequent purchasing behavior.

The chapter presents a discussion of the study's contributions to academic literature and managerial practice and recommendations to marketers and advertisers to optimize IGA strategies. Moreover, the limitations of the study as well as frameworks for future research are discussed. The chapter then also provides a summary of the key insights, emphasizing the importance of the IGA Brand and GPC attitude to optimize the effectiveness of IGA's campaigns.

5.2 Summary of Results

The purpose of this study was to research-driven examination of the hypothesized model about IGA interactivity in relationship with attitude toward the IGA Brand, GPC, and purchase intention. To examine the validity of the study's hypotheses, the study conducted a structured self-administered questionnaire survey on individuals who are actively involved in digital gaming. The fundamental assumptions of SEM indicate that a sample of 360 respondents was appropriate.

These participants were selected based on their gaming habits and exposure to in-game advertisements. Following data collection, responses were coded in Excel and then transferred into SPSS 22 for preliminary analysis. Normality checks, missing values, and outliers were assessed to ensure data quality. Therefore, no missing values were detected due to data collection through Google Forms. Additionally, 7 outliers were identified and excluded using the Mahalanobis distance test. Consequently, a final dataset of 353 responses was used for statistical analysis.

Descriptive statistics were applied to compute mean values and standard deviations. The highest mean value was observed for CPI, indicating that respondents generally held positive perceptions toward the games they engaged with, which in turn influenced their responses to in-game advertisements. The data was then organized for Confirmatory Factor Analysis (CFA), ensuring that all key constructs met the required validity and reliability thresholds. The model fit indices, including χ^2/df, GFI, AGFI, CFI, and RMSEA, were found to be within the recommended ranges (Hair et al., 2006), affirming that the measurement model was well-structured and theoretically sound.

SEM was subsequently employed to examine the direct, indirect, and moderating effects among variables. The results supported the majority of the proposed hypotheses. Specifically:

- IGA interactivity was found to have a significant positive effect on Consumer Purchase intention (H1 supported).
- IGA interactivity was found to have a significant positive effect on attitude toward the game (H2 supported).
- Attitude toward the game significantly influenced purchase intention (H3 supported).

- IGA interactivity also showed a significant direct effect on purchase intention, though the effect was partially mediated by attitude toward the game (H4 supported).
- GPC was identified as a significant moderator in the relationship between attitude toward the game and purchase intention (H5 supported).

Mediation analysis using SEM confirmed that attitude toward the brand partially mediates the relationship between IGA interactivity and purchase intention (IGA → Attitude → Purchase Intention). This suggests that while IGA interactivity enhances engagement, its effect on consumer behavior is strengthened when players develop a positive perception of the brand itself. Moreover, the SEM moderation analysis further revealed that GPC plays a significant role in enhancing the positive impact of the IGA Brand attitude on consumers' buying intention in which the effectiveness of IGA depends to a great extent on brand game alignment. However, support for five hypotheses was found to indicate how interactivity, attitude toward the IGA brand, and congruence contribute to purchase decisions within the gaming environment. The implications of this research further contribute to the literature on digital marketing, advertising effectiveness, and consumer behavior in immersive virtual spaces.

Table 5.1: Results of Hypotheses

Hypotheses	Relationships	Results
H1	IGA→CPI	Accepted
H2	IGA→AT_IGA	Accepted
H3	AT_IGA→CPI	Accepted
H4	IGA→AT_IGA→CPI	Accepted
H5	GPC→AT_IGA*CPI	Accepted

Notes: IGA= IGA Interactivity; AT_IGA= Attitude toward the IGA Brand; GPC = Game Product Congruence; CPI = Consumer Purchase Intention.

5.3 Discussion

This study's findings yield clear insights into the effectiveness of IGA, as they concern the interactivity, brand attitude toward the IGA brand, and GPC's role in affecting consumer purchase intention. These results confirm all five hypotheses proposed, in which interactivity increases player engagement, creates a favorable brand attitude towards the charity, and consequently influences purchase behavior. The study also identifies that GPC plays a moderating role in the strengthening or weakening of these relationships. The findings of this chapter are discussed in light of existing literature and theoretical frameworks.

H1: IGA Interactivity Positively Influences Purchase Intention

The results support the positive relationship between IGA interactivity and consumer purchase intention ($\beta = 0.15$, $p < 0.01$) by the Transportation theory (Green & Brock, 2000). It recruits users directly into the main media content by using interactive advertisements to enhance engagement, resulting in higher brand involvement and increased purchase intentions. This finding is consistent with prior research indicating that interactivity increases consumer engagement with the advertisement, therefore improving the persuasiveness and the memory of the advertisement (Martínez-Navarro et al., 2019; Jain, 2024). Ingame ads that deliver deeper engagement, especially when the player is prompted to interact with actual branded items or complete challenges that involve the product being advertised, increase the likelihood that the player will consider buying the brand off the virtual shelf and into real life. Therefore, these findings identify the need for interactive and seamless video game advertising experiences designed to generate consumer action.

H2: IGA Interactivity Positively Influences Attitude Toward the IGA Brand

According to the study finding, IGA Interactivity (IGA Interact) significantly affects his attitude toward the IGA brand (AT_IGA) ($\beta = 0.22$, $p < .01$). Interaction with an advertisement in a gaming environment enhances user involvement, perceived control over the information, and hence reduces unfavorable brand perception. This is consistent with previous research that prior research has implied that interactive brand placements deliver a more immersive advertising experience, and for this reason, ads become more persuasive (Malhotra et al., 2019; Vashisht, 2017). Furthermore, the Transportation Theory (Van Laer et al., 2014) states that players will have decreased resistance to advertising when they are so deep into the game that their attitudes toward in-game embedded brand messages are positive. These findings reinforce a growing emphasis on interactivity as an essential component of digital advertising strategies in gaming environments.

H3: Attitude Toward the IGA Brand Positively Influences Purchase Intention

Results confirm that CPI ($\beta = 0.25$, $p < 0.01$) is significantly influenced by attitude toward the IGA brand (AT_IGA). This implies that as AT_IGA has a stronger effect size (0.25) than IGA interactivity (0.15), high levels of interactivity catch consumer attention, but the purchasing decision is ultimately driven by the consumer's perception of the brand. As a result, interactive IGA campaigns should place more emphasis on building immediate positive brand associations than on engagement. This finding suggests that favorable brand attitudes lead to stronger consumer-brand relationships that in turn better predispose the consumer to purchase (Hsiao et al., 2022). Players familiar with a brand would feel the brand will engage them well and seamlessly integrate into the gaming environment and are more likely to develop a sense of brand familiarity and trust and to purchase the advertised products. This confirms that this IGA is a source of

building positive brand perceptions and not an alternative (to be perceived as disruptive or intrusive).

H4: Attitude Toward the IGA Brand Mediates the Relationship Between IGA Interactivity and Purchase Intention

Table 4.9 demonstrates that IGA interactivity has a significant mediation of the effect of IGA interactivity on CPI. In particular, the direct effect of IGA interactivity on CPI is 0.15 ($p<0.01$) and the indirect effect through AT_IGA is 0.05 ($p<0.01$) thus, partial mediation is confirmed. This means that interactivity enhances engagement but the effect on purchase intention is mostly due to attitude (e.g., Brand) that is developed within the players.

In-game ads create a more positive brand attitude when players interact with in-game ads, as players perceived that the brand was enjoyable and had a positive feeling when interacting with in-game ads, thus increasing their purchase intent. These findings demonstrated that involvement and a sense of control play a role in changing brand attitude and driving consumer behavior. Furthermore, this is important to marketers who need to think about designing interactive IGA experiences that make a lasting positive impression on players and those that translate to strong brand perception and higher purchase intent**.**

H5: Game-Product Congruence Moderates the Relationship Between Attitude Toward the IGA Brand and Purchase Intention

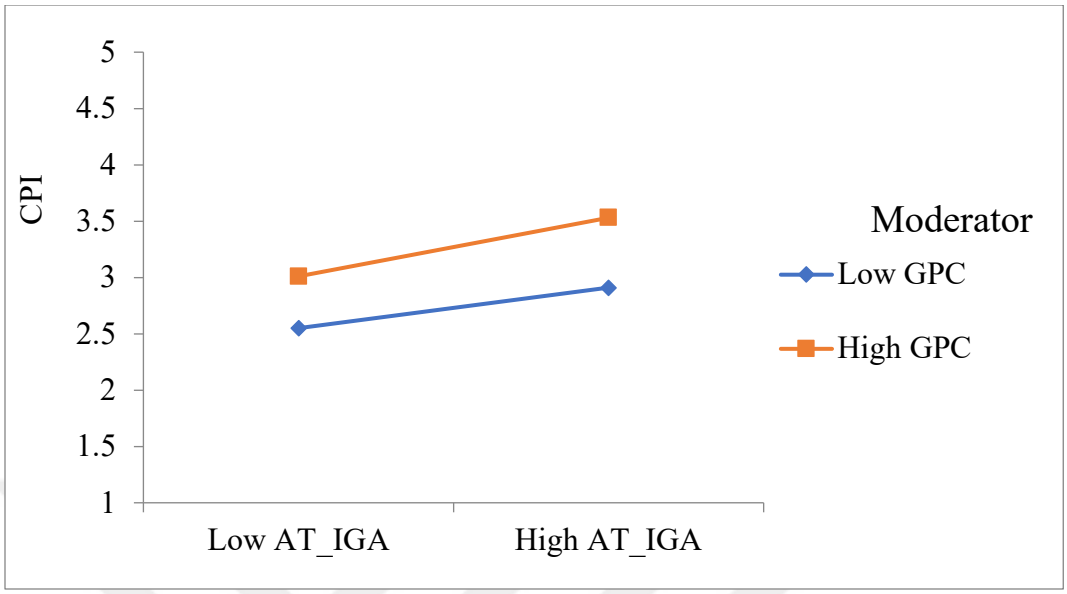


Figure 5.1: Moderation Slope

The study also confirms that GPC significantly moderates the relationship between attitude toward the IGA brand and purchase intention. The direct association between GPC and CPI was estimated and found to be significant (β=0.29, P<0.01). Given this, an interaction term GPCxAT_IGA was estimated for moderating path and was found significant (β=0.27, P<0.01). Results indicate that the AT_IGA effect on CPI is stronger (steeper slope) as GPC increases and less pronounced when GPC is low. This research suggests that the incorporation of advertisements into the game's narrative and setting has the effect of increasing immersion and building brand credibility, thus fostering stronger purchase intentions. However, this reduces brand persuasiveness and triggers cognitive dissonance (Martínez-Navarro et al., 2019) since incongruent advertisements interfere with the gaming experience. These results corroborate the premise of the Transportation Theory that the seamless integration of content increases narrative persuasion (Van Laer et al., 2014).

5.4 Implications of the study

This study contributes significantly to theoretical and practical implications in the IGA and consumer behavior. The findings are grounded in Transportation Theory and display the interactivity and congruence in the IGA game product characteristics as being important factors that influence attitudes towards IGA brands and their purchase intentions. This research extends the existing body of literature by providing insights into how immersive digital advertising strategies influence consumer decision-making.

5.4.1 Theoretical Implications

The findings from this study contribute from a theoretical standpoint to the applicability of Transportation Theory within the context of IGA. According to the Transportation Theory, when people get completely involved in a narrative or an experience, they will be more likely to accept the persuasive messages that can be found in the environment (Green & Brock, 2000). This study confirms the results of this study that interactive in-game advertisements do enhance consumer engagement and the brand attitude toward the advertised brand and higher purchase intentions. This is consistent with previous research that has shown interactive advertisements to result in greater cognitive and affective involvement that leads to increased consumer receptivity of the brand message (Van Noort et al., 2012).

Furthermore, the study also contributes one more voice to the discussion in the ongoing debate about the role of attitude in digital advertising (MacKenzie, Lutz, & Belch, 1986). According to previous research, brand attitude is very likely to be a determinant of consumer purchase behavior (Jian, 2024), and this study can add to previous research by pointing out that interactivity causes stronger positive brand attitude and hence purchase intention in the IGA setting.

Moreover, this study also supports the role of the moderator of game product congruence such as the advertised product is congruent with the theme of the game which enhances consumer attitudinal formation and purchase intention. This supports prior findings that message congruence enhances advertising effectiveness by ensuring that the advertisement does not disrupt the user's immersive experience (Lupinek et al., 2021). The significant moderating effect observed in this study further validates that transported consumers are more receptive to advertising when the brand seamlessly integrates into the gaming environment.

5.4.2 Managerial Implications

From a managerial perspective, these insights underscore the need for strategic ad placement in digital gaming environments. The significant effect of IGA interactivity on brand attitude and purchase intention suggests that advertisers should prioritize engaging and immersive advertising formats rather than relying on traditional static or intrusive ads. Highly interactive in-game ads, such as branded mini-games, product trials, and interactive billboards, allow consumers to engage with the brand in a non-disruptive and immersive manner, thereby fostering a stronger emotional connection to the brand.

Moreover, the importance of game-product congruence in moderating the relationship between brand attitude and purchase intention suggests that advertisers must carefully select gaming environments that align with their brand identity. For instance, a sports beverage brand may achieve higher engagement by placing ads in a sports simulation game rather than a fantasy role-playing game. This reinforces the necessity for contextual relevance in digital advertising, aligning with previous studies that emphasize the negative impact of incongruent advertisements on consumer perception (Lee & Faber, 2007).

Additionally, the findings provide guidance for game developers and publishers seeking to monetize their platforms through advertising without negatively impacting the user experience. By integrating highly interactive and thematically relevant ads, developers can enhance both user engagement and brand effectiveness, creating a mutually beneficial ecosystem for advertisers and game publishers.

5.5 Limitations

Despite the significant contributions of this study, several limitations must be acknowledged. First, the study relies on cross-sectional data, which restricts the ability to establish causal relationships between IGA interactivity, attitude toward the IGA brand, and purchase intention. A longitudinal approach would provide a more comprehensive understanding of how consumer attitudes and purchase behaviors evolve in response to interactive in-game advertising. Additionally, the study utilized self-reported data, which may be subject to social desirability bias or response inconsistencies.

Another limitation is the generalizability of the findings. This study focused on a specific demographic of gamers, which may not fully represent the diverse population of video game players across different regions, cultures, and gaming platforms. Cultural differences in advertising perception and gaming habits may influence the effectiveness of IGA strategies. Furthermore, the study primarily examined GPC as a moderating factor, yet other contextual elements, such as brand familiarity, game genre, and player personality traits, may also significantly shape consumer responses to IGA. Future studies should consider these variables to develop a more holistic understanding of in-game advertising effectiveness.

5.6 Future Research Directions

Given the limitations outlined above, several potential avenues for future research emerge. First, conducting longitudinal studies would provide valuable insights into how consumer attitudes toward IGA evolve over time and whether repeated exposure to interactive in-game ads strengthens or diminishes purchase intention. Another promising direction for future research involves cross-cultural comparisons. Since gaming audiences vary significantly in terms of cultural values, media consumption habits, and advertising perceptions, it would be beneficial to examine whether the proposed model holds across different cultural and regional contexts (Hussain et al., 2022). Moreover, while this study highlights the role of game-product congruence, future research could explore other moderating factors, such as advertising frequency, game narrative involvement, and player engagement levels, to assess their impact on IGA effectiveness.

Additionally, with the rapid advancements in virtual reality (VR) and augmented reality (AR), future research should examine how immersive gaming environments influence consumer interactions with in-game advertisements. Investigating the interplay between interactivity, realism, and user experience in VR-based IGA could provide valuable insights for advertisers seeking to optimize brand placements in evolving digital landscapes.

5.7 Conclusion

This study advances the understanding of IGA effectiveness by examining the mediating role of attitude toward the IGA brand and the moderating effect of game-product congruence. Based on transportation theory, the study shows that IGA interactivity increases consumer engagement, leads to more positive attitudes toward the advertised brand, and promotes purchase intention. In addition, the moderating role of game product congruence also suggests that brand

placements of advertisements should match the thematic elements found in the game so that advertisement effectiveness can be maximized.

From a theoretical perspective, this research advances the literature on digital advertising and consumer psychology with the application of transportation theory in the computational context of the IGA. Building on prior research, this study demonstrates how interactivity plays a critical role in attitude formation and purchase intention and therefore suggests that advertisers create highly engaging and contextually salient brand placements in digital games.

Furthermore, this research offers valuable takeaways for marketers and advertisers, stressing the gist of interactive, congruent brand placement to maximize consumer engagement and brand recall. The study does have some limitations; however, it provides a strong baseline from which to further investigate these psychological and contextual variables that influence consumers' responses to IGA. As digital gaming continues to evolve, further research is essential to refine advertising strategies and enhance the effectiveness of in-game marketing in an increasingly interactive media landscape.

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APPENDIX-A SELF-ADMINISTERED QUESTIONNAIRE

I am a student of Masters at the Institute of Social Science, İstanbul Ticaret University Turkey. This is my thesis project and for this purpose, I am conducting this research entitled "the influence of in-game advertising Interactivity on consumer purchase intention: the mediating role of Attitude toward IGA and the moderating role of game product congruence". The information provided by the participants will be kept confidential and will only be used for academic purposes. Thanks in advance.

Gender:

- ○ Male
- ○ Female

Age:

- ○ Less than 25
- ○ 26-35
- ○ 36-45
- ○ Above 45

Game experience:

- ○ Less than 1 year
- ○ 1-2years
- ○ 3-4 years
- ○ 5-6 years
- ○ More than 7 years

IGA Interactivity

Questions	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. I interacted with the McLaren advertisement during gameplay.	1	2	3	4	5
2. I had interactive exposure to the information about McLaren in the game.	1	2	3	4	5
3. My experience with the information about McLaren in the game was interactive.	1	2	3	4	5

Psychological Well-being

Questions	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. My attitude toward McLaren is appealing.	1	2	3	4	5
2. My attitude toward McLaren is good.	1	2	3	4	5
3. My attitude toward McLaren is pleasant.	1	2	3	4	5
4. My attitude toward McLaren is favorable.	1	2	3	4	5
5. My attitude toward McLaren is likable.	1	2	3	4	5

Game–Product Congruence

Questions	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
4. The images I associate with McLaren are related to PUBG Mobile's environment and context.	1	2	3	4	5
5. The McLaren advertisement shown is relevant to PUBG Mobile's context.	1	2	3	4	5
6. McLaren represents a lifestyle that fits PUBG Mobile's environment.	1	2	3	4	5
7. McLaren is a good fit for PUBG Mobile's content and overall experience.	1	2	3	4	5

Consumer Purchase Intention

Questions	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. In the future, I am likely to purchase a McLaren vehicle.	1	2	3	4	5
2. McLaren appeals to me as a brand.	1	2	3	4	5
3. I would be satisfied with owning a McLaren.	1	2	3	4	5
4. I am impressed by McLaren's brand presence in the game.	1	2	3	4	5
1. I would recommend McLaren to others.	1	2	3	4	5
1. I think people around me would like McLaren.	1	2	3	4	5

Tarih:31/12/2024 08:19
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İSTANBUL TİCARET ÜNİVERSİTESİ

T.C.
İSTANBUL TİCARET ÜNİVERSİTESİ REKTÖRLÜĞÜ

TÜRKİYE CUMHURİYETİ'NİN YÜZÜNCÜ YILI

Sayı : E-65836846-044-341682 31.12.2024
Konu : Etik Onayı

Sayın Ahmed FUAD

İlgi : 24.12.2024 tarihli dilekçeniz.

İlgi yazınız ile "The Influence of In-Game Advertising (IGA) Interactivity on Consumer Purchase Intension" isimli çalışmanın anket sorularına Etik Kurul onayı talep edilmektedir.

Adı geçen ve ekte yer alan anket soruları, Üniversitemiz Etik Kurulunca incelenerek etik tanım, değer ve ilkelere aykırı bir düzenleme tespit edilmediği, önerilen anket sorularının etik kurallara uygun olduğu ve etik onayının verildiği ifade edilmiştir.

Konuya ilişkin bilgilerinizi rica ederim.

Prof. Dr. Hanifi PARLAR
Rektör a.
Rektör Yardımcısı

Ek: Etik Onaylı Anket Soruları

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