



In-Game Brand Collaborations: Consumer Psychology and Behavioral Impacts

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Abstract. This article undertakes a thorough and systematic assessment of the influence of brand collaborations within games on consumer psychology and behavioral patterns. This article fills the important research gap identified by the disorganized nature of previous research. By thoroughly synthesizing the existing body of research literature, two primary psychological constructs are identified: "the identification of the ideal self through virtual avatars" and "social comparison and virtual goods as status symbols and scarcity-induced conspicuous consumption and belonging". The three brand strategy insights are: "product attributes directly influence brand coolness and value," "experiential dimensions such as enjoyment and self-expression are the foundation of brand loyalty," and "avatars act as a psychological bridge between brand meaning and personal identity construction." The article also employs a methodological approach in which the supply-side game-theoretic, and the demand-side social psychological theories are integrated. The research findings are also presented in the article. These research findings are: "the gamification effect varies significantly depending on the characteristics of the group," "the value delivery mechanism is different for luxury and functional brands," and "mainstream and non-mainstream groups have different perceptions of social evaluations." The article concludes with a recommendation for further research on the research findings, and a suggestion for the brand community to "move beyond brand placement and value co-creation via identity resources and conspicuous consumption psychology."

Keywords: In-game Brand Collaborations; Consumer Psychology; Ideal Self-identification; Virtual Avatars; Social Comparison.

1 Introduction

Sanjaya et al. mentioned that the global video game market size was estimated to reach \$159 billion in 2022 driven by technology and an increased number of mobile devices [1]. It is unquestionable that video games open doors as well as bring challenges to brands, and the most important thing at present is not whether to be involved in video games but how to get involved without disturbing the game. Be it luxury goods and sandbox games or beverage goods and esports games, brand collaborations in video games go beyond just delivering an immersive brand experience as a way of consolidating a brand-specific experience [2,3].

It seems that while brand collaborations in video games have a significant positive impact, the psychological foundation and marketing implications of such have remained isolated in the academic literature of the present day. Hence, this piece of work, through a systematic literature review spanning several research fields, attempts to bridge that divide. The paper looks at the two mental aspects from different angles: on the one hand, how individuals perceive themselves through their virtual avatars and ideal self-identity; on the other hand, how collaborative goods are turned into status symbols for social comparison purposes. Hence, this paper intends to supply both theoretical discussion, and the effective practicality in balancing the commercial goals with customers' user experiences. With such a method, the brands can be equipped with a set of tools for them to communicate more effectively and bring the consumers to their marketing strategies.

2 Core Concepts and Literature Review

2.1 Definition and Typology

Research defined brand collaborations in digital games with reference to three types of collaboration: in-game advertising with static or dynamic advertising, advergames, and advertising of social network games that allow social interaction [4]. This model of understanding brand collaboration separates deep and shallow brand collaborations. Deep brand collaborations, which may be exclusive brand skins or storylines, may be more deeply embedded in the gameplay or story of the game, while shallow brand collaborations may be more superficial, with reference to brand visibility, such as background advertising, and may be more likely to impact awareness levels than other aspects of player engagement. Such a model of understanding brand collaboration helps to identify how brands may move from being visible to creating value through player experience, identity, and social interaction with games.

2.2 Core Theoretical Framework

One of the major concepts in virtual environments is identity projection or self-congruity. In this case, identity projection refers to the process through which players develop their ideal self through the personalization of their avatars [5]. The hair styles, clothing, and accessories of the avatars, as well as the personalization of the avatars, are all fluid identity markers for the players. The above concept has a direct impact on the brand in the game as it serves as a symbolic identity for the player. The brand forms part of the identity of the player as it assists in developing their ideal self and immersing themselves in it. This serves as a framework for the process of advertising in a game as a way of engaging the player.

Further research has also pointed out two important psychological factors which influence the engagement in advertising. These two factors are more visible in game-based advertisements. In one such research, it is explained how the engagement of the player in the game is increased through the help of advertisements in two different

ways. One such way is related to the information about the outcome of the game not being revealed, which in turn generates the player's curiosity about the outcome of the game. The second way is related to the failure in the game, which generates a sense of downward social comparison. The unrevealed rewards of playing a game are related to social currency.

2.3 The Particularity of Gaming as a Catalytic Medium

Curiosity and social comparison also reach a level of effectiveness in gaming that is hyperbolic because of three major defining features of the medium. Games, as mediums of interactivity, convert information gaps into a goal that makes the viewer a player. Games, as mediums of interactivity, are mediums of social comparison that unite any differences in skill level into a single standard and any non-completion into a motivational springboard. Games, as mediums of interactivity, are mediums of identity construction that convert unrevealed rewards and hidden incentives into money and capital, and the game itself into an investment in one's digital self.

3 Analysis of Marketing Effectiveness of In-Game Brand Collaborations

3.1 Direct Commercial and Engagement Outcomes

A research study, in its attempt to offer an organized understanding of the concept of "in-game fashion collaborations" as a competitive strategy for customer-based brand equity, goes beyond the parameters of brand awareness and arousal, touching upon the "dual-pathway psychological mechanism that drives business results [6]." Therefore, the research assumes that the aesthetic style of the cooperative product is not an outcome but an antecedent of the value perceived by the consumer, which incorporates both hedonic and utilitarian dimensions. This is an extremely relevant approach, as the analysis is shifting from the surface-level characteristics of the cooperation outcome to the utility of the cooperation in satisfying the consumers' hedonic and utilitarian needs.

Further refinements of the analysis are made with regard to the type of brand as a contingency model, where the discussion is presented with regard to how luxury brands use brand collaboration with regard to hedonic value to improve brand equity with regard to brand image and brand aspiration attributes, and sportswear brands use utilitarian value to improve relationship equity with regard to brand attributes of brand performance and brand affiliation. This perspective offers a more developed strategic approach that could be utilized for market segmentation analysis. This includes the idea that brand collaboration's effectiveness may not be absolute but could be dependent upon existing equity dimensions of collaborating brand types that provide value propositions to the gaming public. While this particular research effectively identifies the model of attitude by which these effects trickle down to purchase intentions, it could

be improved in its breadth by working to address these limitations; however, it is ultimately effective in its ability to operationalize the value transmission model of game collaboration, which is ultimately relevant to understanding game collaboration.

Overall, this research provides a perspective on how collaboration in an online game contributes to building a brand. Several recommendations are provided, each closely linked to three key performance indicators: sales revenue, social media engagement, and brand loyalty. It illustrates a psychological model in which cooperative attributes drive hedonic and utilitarian values that drive purchase intention. It explains product sale conversion in that because of the originality created through this collaboration, social share is an option for this product because of its symbolic presence enhancing the brand's digital presence. It signifies that increasing utilitarian values and relational equity have a significant impact, especially in a product space like sportswear jeans, in creating a relationship with the consumer. Finally, as a future research option in applying this work to a new and possibly improved approach to a holistic marketing strategy, a differentiated approach is proposed for brand types to enhance hedonic values in luxury brands to improve brand image, versus developing a strategy to build utilitarian values through a sense of community belonging for a brand in a sporting segment.

3.2 Brand-Building and Long-Term Consumer Relationship

In the context of game-based collaborations, brand building primarily emphasizes long-term consumer relationships, with the achievement of its goals measured using key performance indicators such as sales revenue, social media interactions, and customer loyalty. A growing body of research has examined the effects of gamification elements, brand partnerships, and community interactions. And their mechanisms with multiple perspectives, and three representative studies have been taken as an example and discuss them systematically in their subjects, methodologies and shortcomings.

The first study, by Smith et al., which examined collective participation behaviors of brand communities using 34 Steam game brands as subjects through the use of a panel vector autoregression model on the data, indicated that collective participation behavior breadth had an immediate impact on consumption while collective participation behavior depth had a greater positive impact on long-term consumption despite the propensity for short-term suppressing effects, with social features like multiplayer modes enhancing long-term consumption effects [7]. Its reliance on gaming-industry data restricts the generalizability of the findings to other brand contexts and not delves too much into the moderating effects of motivations.

Building on this, Li and Aumeerboonsuke also explored consumer engagement within a gaming context, yet shifted the focus from organic community behaviors to brand-initiated gamification strategies [3]. It involved the assessment of a particular collaboration campaign between the tea beverage brand Heytea and the game IP Genshin Impact, whereby data was collected using an online questionnaire survey among 461 consumers aware of this campaign. Results indicated that gamification elements consisting of immersion, achievements, and social interactions contributed to brand loyalty by positively affecting consumer experience and brand engagement, with the achievement component being significant as a driving force, while limitations of

the study involved the use of young consumers as participants, as well as the limitations of the study to observe causality, and the dynamics of time.

Additionally, Alanadoly and Salem examined the relationship between fashion brands and immersive games through collaborations, with a focus on young active gamers in Malaysia [8]. This was done by using partial least squares structural equation modeling with a survey of 160 young active gamers in Malaysia. Findings from the study revealed that the overall enjoyment from the games, and the self-expressive value of the games facilitated the accumulation of brand equity with enhancement in perceived coolness of the brand, and with the effect being higher for females. Limitations of this study are a relatively small and homogeneous sample, cross-sectional data that do not reflect the long-term formative process of brand equity, and uncertainty about extending the results to industries other than fashion.

Although there is a variation in subject matter and approach, these three studies contribute to conceptualizing the role of gamified interactions in developing long-term brand relationships, moving from a conceptualization of consumption based on involvement in a community of participants, to a psychological construct based on gamified interactions, to ultimately developing assets based on involvement through emotional relationships with a brand. Conceptually, it is possible to derive a series of key insights that can be instrumental in effective brand building, moving from interactive to immersion as part of a larger experience system that meets psychological needs, facilitates social interactions, and creates an emotional connection to a brand. Future areas of research should be focused on how to overcome these issues through longitudinal, cross-cultural, and cross-industry approaches.

4 Impact of Brand Collaborations on Consumer Psychology and Behavior

4.1 Impact on Self-Perception: Ideal Self-identification and Expression through Virtual Avatars

Ko & Park examined the effect of ideal self-role congruence on self-perception and behavior through a questionnaire survey targeting 347 American adult gamers [9]. The scale was used to measure the scales of ideal self-congruence, role identification, interaction satisfaction, perception of power in gaming, performance self-evaluation, role attachment, and purchase intention. The results revealed that the effect of ideal self-consistency on gamers' perception of power in gaming, performance self-evaluation, and emotional attachment through role identification and interaction satisfaction was positive. These findings are subject to limitations in terms of the effect of the type of device used and the difference in age, which would greatly influence the identification of the avatar and the purchase behavior.

Based on the aforementioned research, Yang et al. extended their scope to sandbox games, which feature open-ended gameplay and high levels of avatar customization [2]. The research focused on how fashion brand collaborations in sandbox games affect

consumer purchase intention, adopting the perspective of brand coolness and self-avatar identification while emphasizing avatars' role in ideal self identification and expression. The results showed that self-avatar identification mediates the relationships between product attributes and purchase intention, and between perceived game value and purchase intention, while also moderating the mediating role of brand coolness in these two relationships. High levels of self-avatar identification in sandbox games are likely to strengthen the relationship between product familiarity and brand coolness, as well as amplify the promotional effect of self-expression. This indicates that avatars, in the context of ideal self identification, can directly influence the effectiveness of fashion brand collaboration marketing promotional content.

To conclude, these two studies together indicate the importance of virtual avatars as a form of self-expression in the digital world. Ko & Park's study indicated that enhanced identity and interaction quality positively impacted sense of power and performance, ultimately leading to emotional bonding and purchase intention [9]. Virtual avatars are not merely interfaces for gamers but symbolic forms of self-expression in the digital world. Yang et al. explained that avatars, as digital self-expression tools, act as psychological bridges connecting brand meaning to personal identity [2]. Notably, strong gamer identification with avatars is more than simple self-expression, which is a symbolic form that helps achieve ideal marketing outcomes. Avatars also act as mirrors reflecting gamers' desired symbolic self-images, a key factor for successful gamified marketing.

4.2 Impact on Social Comparison: Collaboration items as Social Capital and Status Symbol

A game theoretical model was proposed by Luo, Chen, and Xu to examine how in-game items exploit the ostentatious consumption psychology of players [10]. Ostentatious consumption psychology essentially comes from the social comparison process, where virtual items are used as a status symbol. The model examines the scenario of paying users purchasing items and non-paying users acquiring lower-quality items after spending time (grinding). Although they have different preferences for item quality, both users exhibit the same level of ostentation. The method employs mathematical optimization and modeling to construct a utility function that captures quality, cost, and ostentatious utility depending on the rarity of items. Ostentatious utility is assumed to be a function of the number of users, such that as the number of players who do not have the item decreases, the utility for paying users increases; however, utility is assumed to increase with the number of grinding users, as the presence of lower-status users enhances the status value of the paid version. When ostentation intensity is high, tiered collaboration products may enhance profitability. Because the grinding player base raises the social status value of the paid version. The social status signaling element of paid content can be optimized by game developers through grinding duration and version quality differences. However, there are some limitations in this study, such as not taking into account the competitive elements among various game developers,

and there are no experimental results or real-world examples to validate the actual perceptions and reactions of players to the status differences involved in the social comparison process.

From the game-theoretic approach introduced by Luo et al., this approach complements supply-side models by focusing on demand-side social evaluation, examining the role of social evaluation outside the group on brand-related outcomes in gaming communities [10]. Badrinarayanan and Serra concentrated on the impact of brand tribe members' perceptions of social recognition on brand loyalty and tribalism [11]. Brand tribe perception is described as members' subjective interpretation of their group's evaluation by society with respect to reputation, stigma and legitimacy. Brand tribalism manifests through collective rituals and symbolic boundaries in gaming communities, "intense, multi-faceted, affect-laden, and complex emotional bond with a brand, encompassing community ties, social hierarchies, kinship, and defensive opposition." A replicated design was employed to examine the study on two large video game communities: multiplayer online battle arena (MOBA) gamers and massively multiplayer online role-playing games (MMORPG) gamers. The data was collected using online questionnaires, and structural equation modeling was employed to analyze the findings. The findings revealed a contradictory result, where in the mainstream group, stigma was a negative factor for legitimacy and commitment, but in the deviant group, it was a positive factor for both. Reputation was a positive factor for legitimacy in both groups but only affected commitment in the mainstream group. In the mainstream group, legitimacy and commitment act as drivers for brand tribalism, while for the deviant group, commitment is the only driver for tribalism. Implications of the findings: Implications of the findings show that different processes of social comparison operations exist depending on the type of group, as members of the mainstream group look for social recognition but are hindered by stigma, while members of the deviant group recognize stigma as social capital that enhances tribal identity. Limitations of this study would be that it would be limited to restrictions of external validity as it is based on a gaming scenario; hence, future studies would have to be conducted with different groups and different moderators.

In conclusion, these two studies provide a complementary view of the importance of social comparison mechanisms to gaming communities. These studies show that social status in gaming spaces is a complex phenomenon that is not just an individual psychological phenomenon, but a complex phenomenon in which games are inextricably linked to social construction of meaning. Future research would perhaps try to integrate supply-side and demand-side theories to construct a cognitive model of social status in digital consumption spaces.

5 Discussion and Suggestions

In this literature review, the impact of brand collaborations in games on consumer psychology and behavior has been thoroughly explored. On one hand, at the psychological level, two processes are at play. The ideal self-identification process has demonstrated

that players identify with their ideal selves through their game avatars. The social comparison process has demonstrated that virtual goods are status symbols that employ scarcity and social comparison as a means to facilitate conspicuous consumption and belonging. It is important to note that the gamification effect is heavily dependent upon group characteristics, brand types, and contexts, where luxury and functional brands require different strategies for value delivery, and mainstream and non-mainstream groups perceive social evaluation differently.

On the other hand, at the design level, three results are demonstrated. The first is that co-branded product characteristics such as beauty, rarity and familiarity directly influence brand coolness. The second is that experiential characteristics such as enjoyment, self-expression, and emotional investment are underlying brand loyalty. The third is that the avatar is an extension of the digital self that links brand meaning with personal identity formation.

As future research directions, longitudinal research, cross-cultural research, and industry-wide validations are required for further specification of the marketing mechanisms. Brands are encouraged to extend from placement strategies towards value co-creation strategies, focusing on the psychology of conspicuous consumption and unique virtual goods. The application of avatars in the ideal self also aids in the effective engagement with identity resources. As the psychological profiles differ in demographic differences in the development of the self and social comparison, strategic shifts are required. For the gamer, the importance of rational consumption must also be balanced in the spillover effect of the virtual expenditures. Consumers must also be aware of the spillover effect of the expenditures in the balance between emotional engagement and rational value to achieve a state of balance.

6 Conclusion

This paper seeks to review the role of brand collaboration in games and its subsequent effect on consumer psychology and behavior. The effect is attained through two psychological processes. The first one is the use of avatars as a means of creating the idea of an ideal self, which in turn affects the attitudes towards consumption and brand attitudes. The second one is the use of virtual goods as a means of attaining social status, where exclusivity is used in the creation of a sense of belonging through conspicuous consumption. It is worth noting that there are a number of limitations, which are present in the literature reviewed. These limitations include the fact that the literature is overly dependent on convenience samples, which are biased towards the younger generation. There is also an overdependence on cross-sectional research designs, which are limited in causality and generalizability.

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