Consumer engagement in value co-creation within virtual video game communities

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Abstract. *With the emergence of the gaming industry as the most empowering form of entertainment, video game online communities have become a refuge for many users who are looking to fulfil specific needs, leading them to participate in creating their own experiences. Drawing upon the uses and gratifications theory, this research aims to understand the motivations behind consumer engagement in value co-creation within digital game distribution services (exp. Steam), and how it affects loyalty. To the extent of the author's knowledge, little research has addressed this question within the gaming industry. We conducted an online survey administered to video game platforms users, through which 195 valid answers were collected. Findings suggest that hedonic along with personal and social motivations have positive influence on user's engagement to co-create value, which in return increases their loyalty behavior.*

Keywords: Consumer engagement, Value co-creation, Motivations, Loyalty, Virtual communities, Video games.

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Introduction

The emergence of social media and new technologies have played a crucial role in the transformation of the hyper-modern consumers. This proliferation of the Internet and new technologies led to the establishment of a variety of virtual communities (Jang et al., 2008) where individuals are able to meet their communication, information and entertainment needs. As a result, firms integrated these online platforms as a part of their marketing strategies with the purpose to develop their brands, acquire new customers and retain the existing ones. This type of flow has encouraged the empowerment of consumers, who are no longer a "passive audience" but "active co-producers" allowing them to create remarkable experiences (Prahalad & Ramaswamy, 2004).

Keeping in mind the benefits created by the value co-creation phenomenon, it has become a powerful mechanism to engage consumers, guarantee their loyalty and strengthen their relationship with the brand (Nambisan & Baron, 2009). Undoubtedly, consumer engagement in the process of value co-creation has been at the heart of various studies examining its antecedents and its significant relationship to loyalty. However, to the extent of the authors' knowledge, very little work has addressed the key components of engagement in the context of value co-creation, integrating antecedents, dimensions, and outcomes into a model, in the context of video game virtual communities. The latter knew an explosive growth in the last years, achieving exponential results in 2020 and continuing to grow. Recent numbers have showed that the gaming market represents a multi-billion-dollar industry across all devices (PC, Sony PS, Xbox, Mobile etc.), with an estimation of 2.9 billion players around the world (Newzoo, 2021), pushing companies to realize the importance of exploiting this industry in their marketing strategies with the purpose to engage their customers.

Hence, our aim is to better understand the engagement phenomenon in value co-creation within online video game communities known as "video game digital distribution services".

Literature review

Value co-creation

In the last 20 years, Marketing has witnessed an evolution of principles, moving from the dominant product logic, which focuses on the efficiency of production and distribution of tangible goods, to service dominant logic, which considers service and competence as the main focus of exchange (Vargo & Lusch, 2016), to consumer dominant logic, which directs the attention to consumers' experiences (Heinonen & Strandvik, 2015). These experiences depend on how consumers perceive value while producing and/or consuming a certain product/service via the process of value co-creation (Prahalad & Ramaswamy, 2004).

Prahalad and Ramaswamy (2004) define this phenomenon as a joint action between consumers and suppliers to create meaningful value. According to Leroy (2008) "co-creation is the process by which consumers and companies participate together in all stages of both production and consumption". As a result, consumers are involved at each stage of the service/product development, i.e., from problem definition to its resolution (Leroy, 2008). Therefore, consumers play a dynamic role and act as partners that can define their own experiences' value (Payne et al., 2008). These definitions argue that involvement and engagement are cornerstones in the process of building a cooperative environment (Grönroos, 2011; Prahalad & Ramaswamy, 2004), and that each actor is a resource incorporator (Vargo & Lusch, 2016; Hollebeek et al., 2020). Bearing this fact in mind, firms seek consumers' skills and knowledge in order to provide them with a positive experience (Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2016). This argument is supported by (Leclercq et al., 2016), who adopted this definition while emphasizing the role of engagement platforms as a medium for encounter and resource exchange (Ramaswamy, 2008), especially with the development of new tools and technologies supporting user generated content (Blasco-Arcas et al., 2020).

With the expansion of the gaming industry, online communities became an essential factor reinforcing value co-creation mechanisms (Bilińska-Reformat et al., 2020; Thorhauge & Nielsen, 2021). A key example could be found in the success of "sandbox" games, where users are able to create their own projects within an open world (exp. Minecraft) stimulating

their sense of innovation and increasing their involvement (Grohn, 2017). Other similar practices surfaced to embrace the high expectations of gamers through mod communities – supported by distribution platforms such as Steam and Epic games - (Lee et al., 2020; Thorhauge & Nielsen, 2021). The latter allow users to create new mods into their favorite games, thus, encouraging their voluntary will to participate in collaborative innovation (Bilińska-Reformat et al., 2020).

Consumer engagement

Given the importance of this phenomenon, the engagement construct has been the main focus of several fields. In Marketing, this concept has gained an unprecedented attention by scholars and practitioners considering its role in securing a competitive edge (Brodie et al., 2011; van Doorn et al., 2010). Along with the development of internet and especially with the opportunities offered by social media, virtual communities are swarming with engagement opportunities where companies could benefit from consumers' competence and knowledge. In line with service dominant logic, users are resource integrators, and the media platforms are their input space where they can share valuable information with businesses by expressing their opinions and exchanging their experiences (Leclercq et al., 2016). As a result, various definitions came to light adopting many perspectives such as relational marketing, service dominant logic, social exchange theory and stakeholder theory (Brodie et al., 2011; Hollebeek, 2011; Vivek et al., 2012; Hollebeek et al., 2020), leading to a rich set of conceptualizations. While Van Doorn et al, (2010) consider engagement as a “behavioral action that goes beyond the act of purchasing”, Brodie et al., (2013) emphasize the co-creation experiences within an interactive environment (exp. virtual communities) between the involved stakeholders, impacting the empowerment of consumers. They gave a more holistic description of the construct by incorporating a multidimensional representation, comprising cognitive, affective and behavioral dimensions. The cognitive aspect is defined by the level of concentration and information processing by the consumers in a particular interaction; The affective aspect reflects the consumer's sense of belonging; And the behavioral aspect refers to the action undertaken at a given encounter (Hollebeek et al., 2014).

Uses and Gratifications Theory (UGT)

UGT is one of the most influential studies in the field of media science that aims to provide an understanding about users' endeavor to satisfy particular needs (Katz et al., 1973; Rubin, 2002). This approach was developed from a functionalist outlook by assuming that audiences are active contributors on media platforms and that they are conscious of their role (Nambisan & Baron, 2009). Given the interactive nature of the virtual environment, consumers have significant control over the flow of experiences they choose to engage with (Chen, 2011). Therefore, UGT provides an appropriate theoretical framework for understanding the specific reasons behind consumers engagement behavior (Dolan et al., 2016). In the area of video game communities such as livestreaming platforms, UGT assumes that users are active media seekers, driven by their own motivations, in order to meet their requirements and interests (Li et al., 2020). Taking into account previous studies on UGT, several motivations have been identified namely, cognitive: the ability to meet learning desires; social: Interacting with other peers; personal: the need for recognition; and hedonic:

the expression of emotional pleasure (Dux, 2018; Hilvert-Bruce et al., 2018; Sjöblom & Hamari, 2017).

Hypothesis development and conceptual model

Several studies have investigated the consumer engagement construct (Blasco-Arcas et al., 2020; Hollebeek et al., 2020). As a result, numerous factors emerged featuring intrinsic and extrinsic motivations (Chan et al., 2014; Claffey & Brady, 2017; De Vries & Carlson, 2014; Fernandes & Castro, 2020; Vander Schee et al., 2020). These factors are associated with the individuals' beliefs, objectives as well as aspirations (Vivek et al., 2012). Thus, this research aims to understand the motivations underlying consumers' participatory behaviors in the process of value co-creation in online video game communities relying on the social, personal and hedonic aspects as antecedents of consumer engagement

Effect of social motivations on engagement

Studies on virtual communities show that consumers place considerable value on social strings (Claffey & Brady, 2017; Hilvert-Bruce et al., 2018; Nambisan & Baron, 2009). It can provide positive experiences drawing upon strong connections between peers that share the same interest (Dholakia et al., 2004). In order to meet their social desires, consumers need to interact and communicate with each other relying heavily on social features provided by game distributors and designers (Chuang, 2020; Poretski et al., 2019). According to (Dholakia et al., 2004), many participants join virtual platforms primarily to relieve loneliness, and receive social support from other users of the community. As a result, socialization is an important factor driving consumers to become more involved in online platforms (De Vries & Carlson, 2014). Furthermore, engaging in co-creation requires a high degree of interaction and communication (Hoyer et al., 2010; Prahalad & Ramaswamy, 2004), allowing consumers to create social relationships with other actors. According to Chuang (2020), engagement behavior within online video game platforms is guided by strong social connections between users, gamers and developers, through the expansion of networks, allowing a free and open exchange of ideas. Thus, the following hypothesis can be stated as follows:

H1: Social motivations positively impact consumer engagement in value co-creation in video game online communities

Effect of personal motivations on engagement

Personal motivations are related to achieving a sense of self-efficacy through status seeking and enhancing reputation (Nambisan & Baron, 2009). Consumers are looking to earn gratitude and recognition by providing useful comments and advice, which will eventually lead to community acknowledgment as a result of their endeavors (Füller, 2010). This involves sharing information and knowledge, responding frequently to questions, and participating in solving constructive challenges (Dewalska-Opitek & Hofman-Kohlmeyer, 2021), which provides the opportunity to expand their own expertise (Füller, 2010). This argument is supported by Wasko and Faraj (2005) who demonstrated that, in a virtual environment, the opportunity to enhance one's reputation provided a significant motivation to offer helpful advice to other peers, thus, generating feelings of pride and fulfillment (Chuang, 2020; Kim & Kim, 2018). For instance, content producers in video game live streaming services - such as Twitch.TV and YouTube gaming - display their audience names

on live broadcasts to thank them whenever they make a donation or a subscription as a recognition for their effort (El Afi & Ouiddad, 2021). This can generate a sense of pride, thereby enhancing consumer engagement in value co-creation activities (Dvorak, 2013).

(de Almeida et al., 2018) suggest that personal achievement and self-efficacy influence consumers to participate in virtual communities. Therefore, personal benefits can be identified as a trigger for a consumer's increased motivation to engage in co-creation. Thus, the following hypothesis can be stated as follows:

H2: Personal motivations positively impact consumer engagement in value co-creation in video game online communities

Effect of hedonic motivations on engagement

Hedonic motivations are defined as factors related to entertaining activities (Hoehle and Venkatesh, 2015). Individual's wish to engage is directly linked to the sense of excitement towards an object with enjoyable aspects. Studies have shown that interacting with other peers in a playful ground, as well as solving challenges and exploring features prompt feelings of joy and fun as part of their relaxation routine while seeking out escapism and entertainment (Dholakia et al., 2004; Vander Schee et al., 2020). Platforms dedicated to video games portray these motivations given the nature of its content through gamified factors such as emotes and planned competitions (Hilvert-Bruce et al., 2018; Merhabi et al., 2021). As a matter of fact, one of the characteristics that consumers rely on to judge a given virtual space, is the ability of the latter to provide a playful experience. The more the activity is gamified the more consumers are encouraged to participate (Abou-Shouk & Soliman, 2021; O'Brien & Toms, 2008). Moreover, altruism and participation in solving challenges can be perceived as highly entertaining and exciting activities by customers (Füller, 2010; Hoyer et al., 2010). This dimension reflects the enjoyment while collaborating with other members or companies through online platforms, and exchanging ideas and experiences about products or services (Dvorak, 2013).

Given the orientation of the video game virtual communities, consumers are looking to release tension or engage in challenging tasks, and thus we propose that the notion of enjoyment has a direct impact on online consumer engagement in value co-creation, whether it is the pleasure of belonging to the community, or the pleasure of helping others (altruism) (Hollebeek et al., 2021). The third hypothesis can be stated as follows:

H3: Hedonic motivations positively impact consumer engagement in value co-creation in video game online communities.

Effect of engagement on loyalty

Considering the potential consequences of customer engagement, Bowden, (2009), Brodie et al., (2011) and Van Doorn et al., (2010) argued that the concept of loyalty is the best outcome of engagement mechanisms compared to other concepts. Through a strong and lasting psychological connection accompanied by interactive experiences (Bowden, 2009; Brodie et al., 2011), consumer engagement - which includes cognitive, affective, and behavioral components - represents a true bond that connects the brand with its customers past the basic need of purchase (Brodie et al., 2011; Vivek et al., 2012). Consumers seek knowledge, interaction, social identity and a personal value, which generate a sense of belonging towards the gaming platforms (Chuang, 2020). Furthermore, consumer engagement can lead to

rational and emotional senses, based on a previous experience, that can strengthen their loyalty (Bowden, 2009; Brodie et al., 2013; Hollebeek et al., 2021). This implies physical, cognitive and emotional endeavor translated by content generation and word-of-mouth activities (Algesheimer et al., 2005; Cheung et al., 2011). According to Poretski and Arazy, (2017), participation in value co-creation practices leverage consumer loyalty through online gaming platforms. Based on this, the fourth hypothesis can be stated as follows:

H4: Consumer engagement in value co-creation positively impact consumer loyalty in video game online communities

Conceptual model

Engagement in value co-creation activities on online video game platforms is of a compelling interest (Chan et al., 2014; Abbasi et al., 2020), hence, it is essential to understand the motivating factors behind consumers participation in virtual communities. At this stage, we are able to develop a conceptual framework emphasizing the antecedents as well as the consequences of online engagement in the context of value co-creation (Figure 1). In this regard, social, personal and hedonic motivations can be considered as drivers of engagement, positively impacting the cognitive, affective and behavioral aspects that can lead to consumer loyalty within online video game platforms communities.

Figure 1. Research Model

Source: Authors' own research.

Methodology

Study field

Gaming has become the world's most empowering form of entertainment, as a result, much work on the potential of video games has been carried out. From marketing (Hallmann and Giel, 2018) to educational (Barr, 2017) to therapy purposes (Kowal et al., 2021), there is no

denying the fact that video games capture an important part of our everyday life. This rise in popularity, encouraged the emergence of different types of platforms - either for game distribution (exp. steam, epic games etc.) or for streaming live content (Twitch.TV, YouTube Gaming etc.) - supporting the growth of the video game community and reaching 2.9 billion players around the world (Newzoo, 2021).

The choice of this field lies in the fact that there is a high potential for engagement with virtual communities among all generations and across all demographics. Members can meet new friends, access various resources, and share information, experiences and adventures in real time (Hsiao and Chiou, 2012). With such positive expectations, individuals tend to voluntarily participate and engage in online gaming communities (Hsiao and Chiou, 2012). Certainly, they support the players by covering several co-creative actions allowing users to play a greater role (Dewalska–Opitek & Hofman–Kohlmeyer, 2021). For instance, they can act as experts or testers by testing new game versions before their official release with the purpose to provide their opinion and fix bugs and glitches undetectable by the developers (exp. Google Play Beta testing). Furthermore, users can be hired as brand ambassadors especially via live streaming services. These platforms became not only a support for the involvement of the players, as collaborators, but also a transmitter of the practice, knowledge and rules. For this reason, video game online communities evolved into an important strategy in the marketing approach in order to understand the behavior of the different consumers (connection, playing time, frequency, typologies of practices, etc.) (Hilvert-Bruce et al., 2018; Sjöblom & Hamari, 2017).

Choice of measurement scales

A survey, which consisted of several latent variables, was applied. Taking into consideration the research context of our study, a literature review has been undertaken in order to extract previously validated measures (Hair et al., 2009). For instance, social and personal motivations were measured using respectively 3 and 4 items developed by Nambisan and Baron (2009);

The hedonic drivers, on the other hand, were measured using a 4-item scale in order to assess the pleasure of helping others, generated by (Kankanhalli et al., 2005) and a 4-item scale, developed by (Babin et al., 1994) and (Hartman et al., 2006), in order to evaluate the pleasure of belonging to a community

Consumer engagement, the main variable of our research, was adapted from Hollebeek et al., (2014) study. A total of 10 items were used to measure this multidimensional construct comprising cognitive, affective and behavioral dimensions.

Lastly, to evaluate loyalty in virtual communities, 3 items were employed to measure the intention to continue using the platform, inspired from (Thakur, 2016) and a 3-item scale developed by (Maxham & Netemeyer, 2002) to assess the intention to recommend.

Data Collection

The data were collected using a quantitative approach through an online survey. Participants were recruited from online platforms dedicated to video games, namely Steam, Jeuxvideo.com and Origin (EA Store) as well as popular video game groups (e.g. CS Go) on Facebook. Respondents were invited to participate, either by opening a general discussion or by posting on each platform's page. Since our study does not have a sampling frame, the non-probability sampling through a convenience method was applied (Etikan et al., 2015). The

reason behind this choice is that our target population is accessible, and willing to respond to our online questionnaire (Etikan et al., 2015).

After eliminating 42 invalid responses, 195 answers were retained. Amongst the 195 respondents, 93% were male and only 7% were female, with an average age of 23 years, and the vast majority of users were students (46.2%).

Analysis approach

To test our research model, we proceeded following a 3-step process. First, a principal component analysis was conducted, the objective of this phase being to group the items of each variable into a smaller set of components that capture as much information as possible (Hooper, 2012). The second step served as a stepping stone to examine the causality relationship between the variables, as described in our research model, through simple and multiple linear regressions. Finally, we examined the mediating role played by the engagement construct through adopting (Baron & Kenny, 1986)'s approach.

Results

Reliability and validity of the constructs

Following Kaiser-Meyer-Olkin (KMO) and Bartlett's tests, we were able to conclude the validity of all the variables of our study (with a KMO > 0.6 and a Bartlett's test sig < 0.05) (table 1). After establishing an initial factor analysis, the next step consisted of examining the internal consistency of each element by employing Cronbach's alpha measurement. All coefficients are higher than the recommended level ($\alpha > 0.7$) indicating an excellent reliability (table 1).

Table 1. Factor and reliability analysis

Variable	KMO	Cronbach's alpha
Social Motivations	0.637	0.772
Personal Motivations	0.657	0.832
Hedonic Motivations		
the pleasure of helping others (Altruism)	0.799	0.944
the pleasure of belonging to a community	0.741	0.901
Engagement		
Cognitive	0.741	0.883
Affective	0.851	0.939
Behavioral	0.724	0.903
Loyalty		
the intention to reuse the platform	0.722	0.924
the intention to recommend the platform	0.765	0.925

Source: Authors' own research.

In order to assess the absence of multicollinearity, a correlation analysis has been performed. According to (Dormann et al., 2013), this hypothesis is true if the correlation coefficient (r) is less than (0.7). Findings indicated a strong association between the pleasure of helping others and the pleasure of belonging to a community ($r > 0.7$). Thereby, we decided to merge the two variables into one factor, using principal component analysis, that we named "hedonic motivations". Same procedure was applied between the intention to reuse the platform and the intention to recommend the platform ($r > 0.7$), the produced component

was named "Loyalty". In order to have more conclusive results on the impact of motivational factors on consumer engagement, the authors decided to combine the three dimensions (cognitive, affective and behavioral) into a single variable that we named "Engagement".

Hypothesis test results

With the purpose to test our research hypothesis, we performed simple and multiple linear regressions to investigate the relationships between the different variables imposed by our conceptual model using SPSS (Table 2).

Table 2. Regression Analysis

Lien	R ²	β	t	Sig	Results
Social Motivations → Engagement	0.505*	0.182	2.351	0.000	Accepted
Personal Motivations → Engagement		0.200	3.041	0.003	Accepted
Hedonic Motivations → Engagement		0.436	6.191	0.020	Accepted
Engagement → Loyalty	0.472*	0.687	13.139	0.000	Accepted

*The regression model is significant (sig less than 0.05)

Source: Authors' own research.

Data analysis results proved that all of our hypotheses are significantly supported. Indeed, social motivations positively impact consumer engagement ($\beta=0.182$; $t=2.351$; $p<0.05$), confirming the first hypothesis. H2 confirms the positive and significant effect of personal motivations on engagement in co-creation ($\beta=0.200$; $t=3.041$; $p<0.05$). Hedonic motivations exerted a significant and positive effect on engagement ($\beta=0.436$; $t=6.191$; $p<0.05$), supporting the validity of the third hypothesis.

To test how well engagement predicts loyalty, a linear regression was applied. This model provided appropriate results ($\beta=0.687$; $t=13.139$; $p<0.05$) corroborating the fourth hypothesis.

In order to test the mediating role of consumer engagement between motivations and loyalty (table 3), we adopted the approach of Baron Kenny (1986). which consisted of 4 steps:

- Step 1: test the prediction of motivational factors (social, personal, and hedonic) on loyalty ($t > 1.96$ and $p < .05$).
- Step 2: test the significance of the relationship between motivational factors and engagement.
- Step 3: test the impact of both motivational factors and engagement on loyalty. Taking into consideration the motivational factors as control variables, the relationship between engagement and loyalty should remain significant.
- Step 4: This step enables us to check the essence of the mediation. If the effect of the motivational factors on loyalty disappears, it is a complete mediation, otherwise, it is a partial mediation.

Table 3. Mediation analysis

Lien	R ²	β	Sig	Results
Social Motivations → Engagement → Loyalty				
Social Motivations → Loyalty	0.212*	0.461	0.000	

Lien		R ²	β	Sig	Results
Social Motivations→Engagement		0.364*	0.603	0.000	Complete Mediation
Social Motivations + Engagement →Loyalty	Social Motivations	0.476*	0.073	0.267	
	Engagement		0.643	0.000	
Personal Motivations → Engagement → Loyalty					
Personal Motivations →Loyalty		0.096*	0.311	0.000	Complete Mediation
Personal Motivations→Engagement		0.286*	0.535	0.000	
Personal Motivations + Engagement →Loyalty	Personal Motivations	0.477*	-0.80	0.196	
	Engagement		0.730	0.000	
Hedonic Motivations → Engagement → Loyalty					
Hedonic Motivations →Loyalty		0.256*	0.506	0.000	Complete Mediation
Hedonic Motivations →Engagement		0.438*	0.661	0.000	
Hedonic Motivations + Engagement →Loyalty	Hedonic Motivations	0.477*	0.092	0.189	
	Engagement		0.627	0.000	

*The regression model is significant (sig less than 0.05)

Source: Authors' own research.

This process indicates a significant effect between social motivations and loyalty ($\beta=0.461$; $p<0.05$), as well as between social factors and engagement ($\beta=0.603$; $p<0.05$). After applying the third and fourth steps of this process, findings showed that the significant effect between social motivations and loyalty disappeared after the introduction of engagement ($\beta=0.461$; $p=0.267>0.05$), revealing a complete mediation.

Similarly, the effect between personal motivations and loyalty disappears after introducing the engagement variable to the equation ($\beta = -0.08$; $p=0.196>0.05$), whereas it was significant during the first stage of Baron and Kenny's (1986) approach. Thus, this is a complete mediation.

Likewise, the relationship between hedonic motivations and loyalty is no longer significant after including the engagement construct ($\beta = 0.092$; $p=0.189>0.05$), therefore, the latter acted as a complete mediating variable.

Discussion

This research sought to investigate the overarching motivations behind consumer engagement in the process of value co-creation, and the role played by the latter in ensuring loyalty towards online video game platforms, specifically, video game digital distribution services. In conclusion, all the hypotheses of our research model, related to the determinants of engagement in value co-creation and loyalty were approved. Findings indicate that hedonic along with personal motivations had the strongest influence on consumer engagement, while social motivations came last.

Taking into account their hedonic characteristics, consumers consider video game platforms as a refuge to forget their everyday stress, to prove their skills and have fun with groups sharing the same pursuit. Users seek experiences with a sense of joy and entertainment (Wang et al., 2020). Through enjoyable content (texts, photos, videos, games, contests, competition between guilds...), they become emotionally involved with the community (Hilvert-Bruce et al., 2018; O'Brien & Toms, 2008). This suggests that consumers

who view the online platform of video games as playful, are more likely to respond to messages through chatting, help other members, watch videos, hold contests, and participate in guild tournaments leading to rivalry and mutual acceptance between players (Chuang, 2020). This argument is in line with previous research (Chen & Lin, 2018; Gros et al., 2017; Kankanhalli et al., 2005; Liao et al., 2013; Sjöblom & Hamari, 2017), which consider that users who consume entertaining content are more inclined to participate and engage in creative activities, and bring solutions to help others.

Furthermore, findings suggest that personal motivations had a positive influence on consumer participation. For instance, badges are used to distinguish users who make significant contributions (e.g. donations) and/or display substantial skills in a given area. In addition, video game communities enable users with the possibility to enhance their reputation and self-efficacy (Hamilton et al., 2014; Sjöblom & Hamari, 2017) through reviews, tests and even impact the development process of video games. This will allow them to acquire verified tokens whenever they make a significant contribution to distinguish them from others. Users are seeking personal accomplishments in online gaming communities in order to enhance their chances of gaining recognition, social status and possibly greater roles (e.g., community moderators) (Bilińska-Reformat et al., 2020; Dewalska-Opitek & Hofman-Kohlmeier, 2021). Our findings support other studies indicating that personal incentives, such as achieving a sense of self-efficacy and self-esteem as well as enhancing reputation, provide strong opportunities for consumer engagement (Chen, 2011; Liu et al., 2019; Nambisan & Baron, 2009; Qin, 2020; Whiting & Williams, 2013).

Although results demonstrated that social motivations play an important role in the consumer engagement process in value co-creation, this influence was weaker than other factors. This is due to the fact that these platforms are dedicated to video game distribution, and thus used primarily for entertainment purposes. Findings confirmed the results of previous studies (Chuang, 2020; Claffey & Brady, 2017; De Vries & Carlson, 2014; Hilvert-Bruce et al., 2018), which place social identity as an essential piece in the engagement process.

Considering the fact that engagement in virtual spaces creates a connection between consumers and the platform, the participatory behavior of the former can lead to loyalty (Casaló et al., 2010; De Vries & Carlson, 2014; Jing et al., 2017; Liu et al., 2019). Our hypothesis confirms the research of (Brodie et al., 2011; Von Doorn et al., 2010), which attests that loyalty is a strong consequence of engagement. Indeed, these platforms offer continuous interaction with the brand and with other customers, allowing for easy tracking of announcements and promotional offers, involvement in word-of-mouth communication, forming guilds, organizing competitions and sharing post-use experiences.

Furthermore, data analysis indicated that consumer engagement plays the role of a complete mediating variable between motivational factors and loyalty. This is due to the need for continuous engagement and active participation to enhance consumer loyalty (Jing et al., 2017).

Conclusion

The main objective of our research was to highlight the main motivations for consumer engagement in value co-creation, as well as the effect of this behavior on their loyalty. The importance of these platforms presents an opportunity for many companies to explore the

possibilities of engaging consumers, promoting the exchange and sharing resources jointly, thus creating an environment of value co-creation.

Theoretical implications

This study contributes to the body of literature regarding the antecedents and outcomes of engagement by empirically demonstrating how motivational factors within virtual video game communities influence users' decisions to engage. Uses and gratifications theory has proven to be an appropriate theoretical framework through which engagement can be further explored. Focusing on the need for social interaction, the wish for entertainment, and the aspiration for personal identifications, this approach emphasizes consumer's latent appeals and expectations when engaging with a specific support.

In addition, this study adds to the theoretical body of consumer loyalty by providing empirical confirmation supporting the links between the motivational mechanisms, the emerging concept of customer engagement in the context of value co-creation, and the key elements of loyalty construct.

Moreover, this research demonstrates the importance of engagement within online platforms dedicated to video games. Even though value co-creation has been at the heart of virtual communities' studies, this research is among the first to consider video game digital distribution services. The latter offer various opportunities for user engagement and loyalty that goes beyond the simple act of exchange between 2 parties. The nature of these platforms highlighted the importance of mixing social, hedonic and personal incentives in order to meet their consumer's needs. For instance, users can meet other peers with the same passion, by forming guilds and teams that respect a given hierarchy, and participate in other competitions, which is the backbone of esports industry, one of the most prosperous trends of our time.

Managerial implications

This research also offers several practical implications. Managers need to improve their paradigms and go beyond the establishment of traditional mediums. This implies innovative measures that support social, personal and hedonic motivations to their platforms.

Moreover, with the breakthrough of the gaming industry, firms should build strategies around gamified aspects, particularly in virtual spaces, that can create supportive experiences (e.g., apps, contests, or creative content creation, interactive games, etc.). Certainly, playfulness (e.g., hosting competitions between guilds), while fun features provide the opportunity to offer enjoyable experiences that allow consumers to co-create value.

Since these platforms host massive numbers of players looking for people with whom they can share their passion - either by discussing the game play, forming teams, or asking questions - we suggest that platforms should strengthen their social features that can facilitate interactions between different stakeholders (e.g. Chat section), and drive the best possible experiences (e.g.. Emotes, vocal chat etc.). Moreover, there is a need to innovate their rewarding systems by granting more benefits to encourage consumers' participation.

Limitations and future research

Our work clearly has some limitations, as firstly, we used an online questionnaire with a convenient sample, while other methods could provide more generalized results. Furthermore, we targeted only the game distribution communities, without taking into

consideration other services such as live streaming platforms. The latter is gaining an unprecedented attention by content producers (streamers) and viewers (El Afi & Ouidad, 2021). Seeing the huge engagement opportunities from different demographical segments, future research needs to examine engagement in value co-creation within other services such as video game live streaming communities, and video game platforms hosted by blockchain technology (exp. Sandbox and NFT games). Moreover, in light of the role played by engagement in enhancing consumers' experiences, future studies could examine the influence of this phenomenon on consumer empowerment.

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