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**EXPLAINING CONSUMER ENGAGEMENT IN E-SPORTS –
DEMOGRAPHIC AND SOCIAL CONSIDERATIONS**

EXPLAINING CONSUMER ENGAGEMENT IN E-SPORTS – DEMO-
GRAPHIC AND SOCIAL CONSIDERATIONS

Keywords: e-Sports, Consumer Engagement, Social Identity, Brand Management, Age, Education.

Based on assumptions from marketing and social psychology, this paper aims at obtaining a better understanding on how to engage consumers

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in e-Sports using brand identification and demographic dispositions (i.e., age, education) as antecedent variables. We collected a sample of 216 League of Legends consumers, via the crowdsourcing marketplace Mechanical Turk to explain consumer engagement of e-Sports brands. Using a quasi-experimental approach and structural equation modelling, we show that brand identification affects consumer engagement in a positive manner. Our results indicate that age has a negative and education a positive influence on brand identification and consumer engagement.

BADANIE ZAANGAŻOWANIA KONSUMENTÓW W E-SPORT – UWARUNKOWANIA DEMOGRAFICZNE I SPOŁECZNE

Słowa kluczowe: e-sport, zaangażowanie konsumentów, tożsamość społeczna, zarządzanie marką, wiek, edukacja.

Celem niniejszego artykułu, wykorzystującego założenia z zakresu marketingu i psychologii społecznej, jest lepsze zrozumienie sposobów angażowania konsumentów w e-sport przy wykorzystaniu identyfikacji z marką oraz uwarunkowań demograficznych (m.in. wiek, wykształcenie) jako zmiennych antycypacyjnych. Aby wyjaśnić zaangażowanie konsumentów w marki związane z e-sportem, zebrano dane na próbie 216 osób grających w League of Legends, za pośrednictwem rynku crowdsourcingowego Mechanical Turk. Wykorzystując podejście quasi-eksperymentalne i modelowanie równań strukturalnych, wykazano, że identyfikacja z marką wpływa na zaangażowanie konsumentów w pozytywny sposób. Wyniki wskazują, że wiek ma negatywny, a wykształcenie pozytywny wpływ na identyfikację marki i zaangażowanie konsumentów.

Introduction

E-sports¹ can be considered one of the most salient manifestations of digital innovations and as a general driver of digitalization. The phenomenon offers substantial potential for creating monetary revenue among organizations worldwide, as the e-sports market had a value of more than a billion U.S. dollars (Statista 2021a) and is still experiencing an impressive level of viewership growth up to 474 million in 2021 (Statista 2021b).

¹For the purpose of our paper, we understand e-Sports as the competitive play of video games (Scholz 2019).

One relevant challenge to leverage its monetary potential is a better understanding of e-sports consumers. Consulting literature on strategic management, our present study seeks to explore the emergence of consumer engagement. With our study, We extend existing work in the context of e-sports (Abbasi et al. 2020; Kordyaka, Hribersek et al. 2020) by proposing brand identification as a predictor variable of consumer engagement embedded in theoretical assumptions of the social identity approach (SIA) from psychology (Bergami Bagozzi 2000; Tajfel, Turner 2004). Additionally, we want to explore influences of antecedent variables of brand identification and propose age and education as potential antecedents of brand identification and consumer engagement.

To better understand consumer engagement in the context of e-sports, we look at the LEC League of Legends Season 2019 consisting of ten different organizations. Specifically, we ask participants for their perception regarding their most favourite organization in the LEC, via an online questionnaire. We use structural equation modelling (SEM) to test the influence of brand identification and its antecedents on consumer engagement. Summarizing, the study is guided by the following research question (RQ):

RQ: How well can brand identification and demographic variables explain consumer engagement in the context of e-sports?

To answer our RQ, the remainder of the paper is structured as follows. First, we present related work consisting of consumer engagement, brand identification, and antecedent variables of brand identification. Afterwards, we illustrate the methodology and derive the results. Following, we briefly discuss the results and the limitations of our study.

Related Work

Consumer Engagement

The main goal is to better understand e-sports consumers, because of the innovative and interactive nature of relationships between players and the organizations of the industry. Thus, the relevance of implicit advertising and mouth-to-mouth interaction (e.g., players talking about the game play experience in social networks and streaming platforms) is more crucial compared to traditional economic markets. The field of e-sports promises to contain novel patterns of consumer behaviour. Specifically, we want to explore consumer engagement. Consumer engagement is a condition that happens rather unconsciously and as a persistent and pervasive long-lasting state that is closely connected to profitability, because it holds the potential to enhance consumer satisfaction, loyalty, trust, and brand evaluations. This

makes it a meaningful predictor of economic success (Harter et al. 2002). By being engaged, individuals exhibit behaviours that go beyond traditional market-ascribed consumer behaviours (Lang et al. 2015).

Brand Identification

Previous research in the context of video games and digital communities already showed the relevance of identification within a group (Cornwell, Coote 2005; Kim et al. 2012; Wu, Tsai 2008). To theoretically capture brand identification, we refer to assumptions from social psychology and more specifically the Social Identity Approach (SIA). The SIA proposes that the identity of an individual is formed from a collection of beliefs that define her or his own perception in a given situation (Myers 2012). The underlying mechanism is the attribution of competence, either with reference to their general ability or a specific skill. We argue that identification with an e-sports brand can be understood as a specific and highly relevant part of the constructed identity as an e-sports consumer. Previous research in the context of e-sports already suggested that identification is a relevant predictor to explain desired target states related to economic behaviour (Kordyaka, Jahn et al. 2020; Kordyaka, Hribersek 2019). Nonetheless, no study up to date has tried to test the relationship between brand identification and consumer engagement. Accordingly, we propose that individuals who strongly identify with a brand (such as popular e-sports brands as G2, Fnatic, or Vitality) will report higher levels of consumer engagement. This leads us to the following hypothesis:

Hypothesis 1: Brand identification shows a positive relationship to consumer engagement.

Demographic antecedent variables

Another goal of our study is the exploration of demographic influences on brand identification and consumer engagement. Corresponding insights can be used in e-sports industry to establish a holistic marketing strategy (e.g. target-group specific communication, market segmentation). Specifically, we seek to replicate previous research findings. Firstly, we refer to a study that consulted the model of psychosocial development (Erikson, Erikson 1998) showing that younger individuals demonstrate higher levels of identification than older individuals in the context of video games (Kordyaka et al. 2018). Whereby, the underlying mechanism was explained because older individuals possess a more flexible and richer identity, which reduces the identification with the video game community (Chasteen 2005). We argue that the same relationship is present regarding consumer engagement.

Based on the aforementioned relationships, we specify the subsequent two hypotheses regarding the predictor variable age:

Hypothesis 2a: Age shows a negative relationship to consumer engagement.

Hypothesis 2b: Age shows a negative relationship to brand identification.

Secondly, we build on previous work showing that the average e-sports consumer is rather educated (Kordyaka, Hribersek et al. 2020). Whereby, this finding can be explained by the circumstance that the possession of digital competencies is an essential part of higher education, which increases the probability of being interested in digital sports. Accordingly, education should be positively connected to consumer engagement and brand identification. We specify the subsequent two hypotheses regarding the predictor variable education:

Hypothesis 3a: Education shows a positive relationship to consumer engagement.

Hypothesis 3b: Education shows a positive relationship to brand identification.

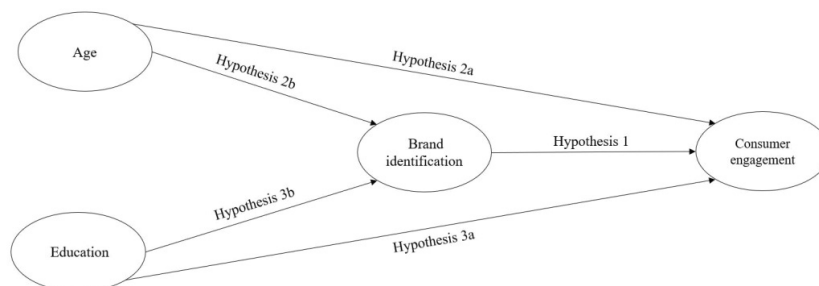


Figure 1. Research model.
Source: authors' own work.

Methodology

Design and data analysis

To test our RQ, we used a cross-sectional design and collected self-reports from players using a digital questionnaire. Subsequently, we analysed the data with covariance-based statistics (i.e., regression analysis and structural equation modelling) to test the hypotheses and explain consumer engagement.

Data sampling and participant characteristics

We conducted a survey involving 216 participants (consumers of the multiplayer video game *League of Legends*), by using the crowdsourcing marketplace Mechanical Turk (MTurk). All participants received \$1.09 as compensation for taking part in the study. The majority of the included cohort were males (161 males, 55 females). Most participants were Americans (158), followed by Indians (47). Participants reported that they had started consuming e-sports content a little over three years ago ($M = 3.35, SD = 1.86$). Altogether, the participant characteristics of the derived sample seemed suitable for the general group of consumers interested in e-sports, considering the demographic characteristics of the participants of previous studies (e.g., Bathurst 2017).

Measurements

Dependent variable

To measure our dependent variable, i.e. consumer engagement, we adapted six items from previous literature to the context of our study. For this, we used a 7-point Likert scale ranging from 1 “strongly disagree” to 7 “strongly agree” and combined all items into a single average mean (e.g., “I am always interested in learning more about e-sports”; $M = 4.99, SD = 1.43, \alpha = 0.92$; Keller 2001).

Independent Variables

The average age of participants was close to 31 years of age ($M = 30.98, SD = 7.36$) and ranged from 18 to 56 years, which is in line with ordinary characteristics of video game players (Statista 2018). Additionally, most participants stated that they already completed their bachelor’s degree (78%) in their respective countries.

Mediating Variable

Brand identification was measured with two items adapted from previous literature (Bergami, Bagozzi 2000). Firstly, a visual item included a series of Venn diagrams that indicate the extent of overlap between the participants’ self and brand identity, whereby the participants were required to choose the level of overlap that best reflected their relationship with the brand. Secondly, a verbal item asked participants about their level of agreement with the statement (i.e., “My self-image overlaps with the image of the brand”). Both items were using a scale comprising of seven answer possibilities. We aggregated both items to a single value of brand identification ($M = 4.82, SD = 1.40, \alpha = 0.67$). All items used in the study are listed in Table 1.

Table 1

Items used in the study

Name	Wording of the item	Source
Dependent variable		
Consumer Engagement	I really like to talk about the brand with others.	(Keller 2001)
	I am always interested in learning more about the brand.	
	I am interested in merchandise from the brand.	
	I am proud to have others know I know about the brand.	
	I like to visit the website of the brand.	
	Compared to other people, I closely follow news about the brand.	
Independent variable		
Age	How old are you?	Own study
Education	What is the highest level of education you finished?	Own study
Mediating variable		
Brand identification	Select the diagram that best describes the overlap of your identity and the brand.	(Bergami, Bagozzi 2000)
	My self-image overlaps with the image of the brand?	

Source: authors' own work.

Results

Before testing our hypotheses, we conducted some preliminary analysis. Accordingly, we wanted to control for potential confounds on our dependent variable consumer engagement. For this, we carried out a multiple regression analysis using the independent variables gender, country, played games, and started watching e-sports (in years) to explain the dependent variable consumer engagement. The regression equation showed a non-significant result ($F(4; 212) = 1.999; p = 0.10$) that explained 2% of the variance of consumer engagement, while only "played games" ($\beta = 0.19, p < 0.01$) significantly explains consumer engagement (all others $p \geq 0.71$).

To test our hypotheses, we used the derived information and inserted the relationships into a structural equation path model using the software AMOS. A maximum likelihood estimation was applied to

specify the model. The inferential test of the model indicated good fit ($\chi^2(df = 4; N = 216) = 0.804; p = 0.94$), the additional fit indices approved a good fit between the postulated model and the empirical data ($CFI = 0.99, SRMR = 0.02, RMSEA = 0.01$). Figure 2 shows the relationships among the derived structural equation model (SEM).

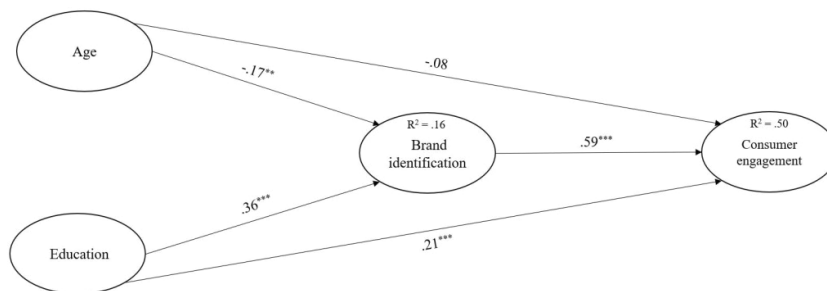


Figure 2. SEM results.
Source: authors' own work.

Regarding Hypothesis 1, we found that brand identification is a significant predictor of consumer engagement ($\beta = 0.59, p < 0.001$) approving its postulated positive relationship. With regards to Hypothesis 2, we found mixed results. On the one hand, age had the postulated negative influence on brand identification ($\beta = -.17, p < 0.01$) supporting Hypothesis 2b. On the other hand, age was not a meaningful predictor of consumer engagement ($\beta = -.08, p = 0.10$). Accordingly, we did not find empirical support for our Hypothesis 2a. Regarding the predictor variable education, we were able to find the postulated relationships regarding consumer engagement (Hypothesis 3a; $\beta = 0.21, p < 0.001$) and brand identification (Hypothesis 3b; $\beta = 0.36, p < 0.001$).

Discussion

Based on the derived results of our study, we are now able to answer our RQ (How well can brand identification and demographic variables explain brand engagement in the context of e-sports?). Brand identity is indeed a meaningful predictor of consumer engagement (Hypothesis 1). This finding is in line with previous research in related contexts (Kordyaka, Jahn et al. 2020; Kordyaka, Hribersek 2019). Accordingly, we were able to increase the external validity by illustrating the added value of using group related entities and the SIA (such as brand identification) in the context of e-sports. We understand this finding in a way that organizations

involved in the context of e-Sports should increase efforts to ensure brand identification, whereby empirical research already illustrated ways how this can be achieved on a level of technology design (Kordyaka et al. 2021).

Furthermore, we found mixed empirical support for our postulated relationships of Hypothesis 2. Specifically, we detected the postulated negative relationship between age and brand identification (Hypothesis 2b). As an explanation, we refer to research regarding the vulnerability of young consumers showing that it is easier to influence younger consumers in a desired way due to their rather insecure identity that is still in development (Batat 2012, Pechmann et al. 2011). Thus, e-sports is less relevant for older consumers as other aspects of life become more important, which is one way to understand the negative influence of age on brand identification. Regarding the relationship between age and consumer engagement, we only found descriptive indicators and no inductive support for Hypothesis 2a. One reason for this might be that engagement is a persistent and pervasive long-lasting state that survives the aging of consumers once established (Harter et al. 2002). Regarding Hypothesis 3, we found that education was positively connected to consumer engagement (Hypothesis 3a) and brand identification (Hypothesis 3b) in our data. Accordingly, we extended the external validity of previous research findings to the context of our study.

Aside from that, our study includes some limitations we want to address to adequately classify the derived knowledge. First, we used MTurk to collect our sample, which possibly limits the diversity of sampling. However, the gender ratio in our study was close to general characteristics of the e-sport consumer of other studies indicating representativity (e.g., Bathurst 2017). Additionally, most of our participants were Americans or Indians, which can be attributed to the tool we used to collect the data. Since the context of our study (i.e., *League of Legends*) is a global phenomenon, we are aware that we were only able to capture a fraction of the general population of e-sports consumers. However, for future research we recommend to replicate the findings of our study with a more diverse cultural background of participants.

To summarize, our study illustrated the relevance of brand identification as a particularly promising opportunity to ensure consumer engagement and the added value of making use of the SIA as a theoretical approach in the context of e-sports. Additionally, our findings provide practical opportunities that can be implemented in tools of strategic marketing to establish economically desired target states of organizations looking to establish e-sports brands.

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