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Effect of Social Identification on Esports Viewers Behaviours

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4 1 **Effect of Social Identification on Esports Viewers Behaviours**
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7 2 **ABSTRACT**
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10 3 While the literature on esports is growing exponentially, little work has been undertaken into
11 4 understanding the reasons that lead viewers to buy sponsored products and demonstrate
12 5 engaged and loyal behaviours towards players and brands. Based on social identity theory, this
13 6 work explores the effects of viewers' identification with players/teams and viewer communities
14 7 on their purchase intentions, behavioural engagement and behavioural loyalty. Based on
15 8 responses made by 396 esports viewers, a theoretical model is validated using PLS-SEM. The
16 9 results indicate that viewers' identification with esports players/teams influences their
17 10 identification with communities, which affects three viewer behaviours: intention to buy
18 11 sponsoring brands, behavioural engagement and behavioural loyalty towards the player and/or
19 12 team. Viewers' identification with the community mediates the effects of their identification
20 13 with players and teams. This is among the first studies to use social identity theory to explain
21 14 the behaviours of esports' viewers towards esports, players, teams and sponsoring brand.
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36 15 **KEYWORDS**
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38 16 Esports, social identity theory, streaming, customer behaviour, purchase intention
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Effect of Social Identification on Esports Viewers Behaviours

1. INTRODUCTION

The consumption of video games mainly satisfies recreational/play needs (Hamari & Sjöblom, 2017). However, an industry, termed esports, has recently developed around competitions (and related content) in which viewers watch online games between players/teams. Esports has an estimated audience of more than 532 million viewers worldwide, and is forecast to have a global turnover of more than 1,380 million USD in 2022 (NewZoo, 2022). As with traditional sports, esports is organised into players and teams competing in professional leagues, tournaments and championships (Borowy & Jin, 2013). Amateur players are motivated by the competitiveness of winning a tournament/league (Bányai *et al.*, 2020), and professionals by the prizes on offer (Griffiths, 2017). Players and teams commonly broadcast their games over the internet, through livestreaming platforms such as Twitch and YouTube. Thus, players and teams are often considered, by the industry in general, to be esports streamers. Through these livestreaming platforms, streamers share content with their audiences (Hu *et al.*, 2017) and interact with them through online chat (Gerber, 2017). Their media impact gives these streamers fame that can influence their viewers' behaviours.

Hitherto, esports research has mainly examined consumer behaviours within the frameworks of theories of technology acceptance (e.g. the UTAUT), audiovisual product consumption (e.g. uses and gratifications theory), brand perception and sponsorship (see Abbasi *et al.*, 2023; Bertschy *et al.*, 2020; Cuesta-Valiño *et al.*, 2022; Hamari & Sjöblom, 2017; Hilvert-Bruce *et al.*, 2018; Qian *et al.*, 2020). Few studies have examined how viewers' identification with esports players and viewer communities influence their behaviours towards, and relationships with, brands (see Flegr & Schmidt, 2022; Rietz & Hallmann, 2023).

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1 Some players have been identified by the industry and academia as being influencers
2 (Woodcock & Johnson, 2019). Thus, brands collaborate with them so that they will recommend
3 their products, and for product placement purposes (Lou & Yuan, 2019). The ability of
4 influencers to deliver very targeted messages makes it advisable that research be carried out to
5 better understand their impact on consumers' relationships with brands (Taylor, 2020). The
6 incipient literature on streamers' ability to influence others has highlighted the importance of
7 various factors (e.g. the streamers' personal characteristics, the trust they generate, their
8 communities of followers, their ability to relate to their communities of followers, and platform
9 quality) (see Giertz *et al.*, 2022; Hsu, 2023; Kim & Kim, 2022).

10 In the traditional sports context, consumers' identification with brands and teams has been
11 shown to be a predictor of their behaviours towards their products and/or services
12 (Welzmueller & Schmidt, 2024). In the same context, the positive impact that consumers'
13 identification with teams' online communities has on their behaviours has been noted (Kim &
14 Manoli, 2023). In the livestreaming shopping field, it has been shown that the consumer's
15 identification with the streamer promotes positive behaviours towards the streamer him/herself
16 and sponsoring brands (e.g. Ko, 2023).

17 Social identity theory (SIT) (Tajfel & Turner, 1979) proposes that part of an individual's self-
18 concept is defined by his/her membership of social groups. People categorise themselves and
19 others based on their membership of these social groups and evaluate these categorisations,
20 which creates social identity. Belonging to a group is shown through undertaking various types
21 of behaviours, including the selection of online entertainment (Trepte, 2013). Several studies
22 into esports have used SIT to explain consumers' behaviours towards teams (e.g., Kordyaka *et*
23 *al.*, 2020) and sponsoring brands (Calapez *et al.*, 2024). However, there is a gap in the literature.
24 Little research has taken place into the effect that viewers' identification with esports

1 players/teams and their online communities have on their behaviours, specifically, purchase
2 intentions, behavioural engagement and behavioural loyalty.

3 The aim of this research is threefold. First, to understand how viewers' identification with
4 esports players/teams and their online communities of followers affects: their intentions to
5 purchase sponsored brands/recommended products; their engagement with players'/teams'
6 streams; and their loyalty towards players'/teams' streams. To this end, the research draws on
7 SIT (Tajfel & Turner, 1979). SIT holds that the characteristics of the social category with which
8 one identifies, that is, to which one considers oneself to belong, contribute to the construction
9 of one's self-concept, which in turn shapes one's behaviours. The livestreaming literature has
10 suggested that watching esports can enhance viewers' identification with players, teams and
11 their viewer communities (Hu *et al.*, 2017). In addition, the online brand community literature
12 suggests that viewers' identification with players and teams and their viewer communities can
13 lead them to adopt positive behaviours towards the players, teams, communities and sponsored
14 brands (Aw *et al.*, 2022; Martínez-López *et al.*, 2017).

15 In the present study, a conceptual model is proposed, and empirically evaluated, that proposes
16 that viewers' social identification with esports' players, teams and communities are antecedents
17 of three key influencer marketing-related behaviours (Park & Lin, 2020; Zhang *et al.*, 2020):
18 purchase intentions, behavioural engagement and behavioural loyalty.

19 **2. THEORETICAL FRAMEWORK**

20 *2.1. Esports livestreaming*

21 One of the features that has aroused much interest in esports in recent years is *livestreaming*
22 (i.e. live videos broadcast and viewed on the internet). For example, Hamari and Sjöblom
23 (2017) identified audience motivations. Andrews & Ritzer (2018) defined livestreams as a new

1 form of consumption, where the viewer feels part of the community thanks to the types of
2 interactions that take place on *streaming* platforms. The ability of *streamers* to interact live
3 with their audiences, for example, by reading and responding to their comments, has generated
4 a new communications paradigm (Taylor, 2016). Hilvert-Bruce *et al.* (2018) argued that the
5 emotional attachment that audiences develop towards livestreaming platform communities
6 generates a sense of community. It could be said that streamers in general, and esports streamers
7 in particular (i.e. players and teams), act as social media influencers in their viewer
8 communities. Influencers offer organisations opportunities for audience-company dialogue
9 (Dwivedi, 2015). In addition, they create content that is of interest to the audience (Tuten &
10 Solomon, 2017) and their recommendations are perceived as authentic and credible (Jin &
11 Phua, 2014). As a result, their ability to influence the audience is often greater than that of
12 traditional celebrities (Cocker *et al.*, 2021), thus, companies use streaming social networks to
13 promote their products (Wongkitrungrueng *et al.*, 2020) through the interactive experiences
14 they provide (Wang *et al.*, 2022; Zhang *et al.*, 2020).

15 Esports represent a special context for livestreaming, both because of the characteristics of the
16 product (esports competitions), and because the audience consumes the content for motivations
17 that differ from those of followers of other types of *streamers* and *influencers* (Hamari &
18 Sjöblom, 2017; Hilvert-Bruce *et al.*, 2018). In esports, professional players and teams, some
19 with millions of followers/subscribers, broadcast live content on livestreaming platforms. The
20 platforms have mechanisms that allow viewers to interact in real time with players and other
21 viewers (online chat, private messages, emoji reactions) (Wongkitrungrueng & Assarut, 2020;
22 Zhang *et al.*, 2020). In addition, the audience can support the esports player/team by
23 subscribing to the channel, for which they receive perks (exclusive content, private chats). In
24 esports, viewers follow the streamed content and interact with each other, forming communities

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4 1 linked to the players/teams (Reitman *et al.*, 2020). A sense of consensus and community
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6 2 identity is often fostered in these communities (Jeong *et al.*, 2021). Previous studies have
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8 3 shown that audiences identify with streaming influencers (Hu *et al.*, 2017), and the influencers
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10 4 have been found to satisfy product information needs, to reinforce consumer-brand interactions
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12 5 and to improve the shopping experience (Wang *et al.*, 2022).

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15 6 Some studies into livestreaming platforms (e.g. TikTok and Twitch) have highlighted that
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17 7 online communities can be generated around the platforms (Wang *et al.*, 2023). Brand
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19 8 livestreams have even been described as brand communities (Wang *et al.*, 2024). The viewer-
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21 9 streamer and viewer-viewer interactions that take place in communities positively affect their
22
23 10 members' sense of being part of a virtual community, their loyalty towards the streamer and
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25 11 his/her community and increase their intentions to continue watching the content (Chen, 2023;
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27 12 He *et al.*, 2023).

30 13 *2.2. Esports communities and social identification*

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33 14 Some esports literature has explored the formation of, and interactions that take place within,
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35 15 these communities (e.g. Reitman *et al.*, 2020). As with online brand communities (Brodie *et*
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37 16 *al.*, 2013), the relationships between fans of esports players can give rise to communities in
38
39 17 which members develop feelings of belonging and identification. These feelings motivate
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41 18 esports community members to interact with other members and with players (Algesheimer *et*
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43 19 *al.*, 2005; Hollebeek *et al.*, 2019). In this context, indicators of community support are, for
44
45 20 example, number of followers, views and reactions/interactions (Hilvert-Bruce *et al.*, 2018).
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47 21 Support can also be financial, for example, paid subscriptions (e.g. Twitch) and crowdfunding
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49 22 (e.g. Patreon) that give users access to exclusive content and chat permissions, and allow them
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51 23 to post emojis (Sjöblom & Hamari, 2017).
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4 1 Communication in the communities that develop around streamers is interactive (Hilvert-Bruce
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6 2 *et al.*, 2018; Wongkitrungrueng *et al.*, 2020), which helps generate a sense of social presence
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8 3 among their members (Ming *et al.*, 2021), which fosters their identification with the community
9
10 4 (Jeong *et al.*, 2021). As a result, some brands work with streamers for promotional purposes,
11
12 5 to leverage their ability to influence the consumer's engagement with the brand and his/her
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14 6 purchase intentions (Wang *et al.*, 2022).

17 7 The SIT (Tajfel, 1974; Tajfel & Turner, 1979) proposes that the image an individual has of
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19 8 him/herself is influenced by the social groups to which (s)he believes (s)he belongs; that is,
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21 9 once individuals categorise themselves as members of a particular group, they adopt that
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23 10 group's identity. Identification with persons or groups is represented in the mind of the
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25 11 individual as part of his/her social identity, contributing to his/her self-concept, and influences
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27 12 how (s)he thinks, feels and behaves (Hogg *et al.*, 1995).

30 13 SIT has been tested and extended in works in the fields of gaming (Sharma *et al.*, 2021),
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32 14 influencer marketing (Muda & Hamzah, 2021) and live broadcasts (Hu *et al.*, 2017). It has been
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34 15 shown to be valid for explaining group relationships and collective identity in online gaming
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36 16 (Teng *et al.*, 2024) and game livestreaming (Zhang & Liu, 2024). It has been used in esports to
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38 17 study: identification with video game franchises (e.g. Kordyaka *et al.*, 2020); the potential of
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40 18 using blockchain-based fan tokens as a mechanism for stimulating democratised decision-
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42 19 making and fan engagement (Ante *et al.*, 2024); the influence of esports' fan identification with
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44 20 traditional sports teams (Cardoso & de Almeida, 2023). SIT can be used to examine the
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46 21 behaviours of esports' followers to determine whether identification with an esports team or
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48 22 community influences self-esteem and collective behaviours, which affect their attitudes and
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50 23 behaviours (Ante *et al.*, 2024; Cardoso & de Almeida, 2023; Kordyaka *et al.*, 2020). Thus, we
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1 understand that, in the esports context, the viewer's feeling of identification may be associated
2 with the esports player/team and/or with their community of followers.

3 Previous research into endorsement and influencer marketing (Chapple & Cownie, 2017)
4 showed that audience identification with endorsers/influencers has important effects on
5 audiences due to the affinity they feel towards their personalities and lifestyles, and other
6 commonalities (Gräve, 2017). The possibility that interactions can take place enhances the
7 audience members' feelings that the influencers are just like them (Hilvert-Bruce *et al.*, 2018).
8 In this sense, in the context of livestreaming, Hu *et al.* (2017) showed that, when viewers
9 perceived they were taking part in parasocial interactions, this positively affected their
10 identification with the streamer. Hitherto, most studies have analysed the effectiveness of
11 influencers, with only a few exploring the effects exerted by their communities (Farivar &
12 Wang, 2022). Similarly, few studies have explored the relationship between viewers'
13 identification with esports players/teams and their identification with their communities of
14 followers.

15 At Appendix A is a table listing research on viewer identification in the areas linked to the
16 present study: esports, livestreaming and influencer marketing. The findings show that
17 identification is an important predictor of positive audience behaviours towards influencers,
18 gamers and streamers (Hu *et al.*, 2017; Ko, 2023; Qian, 2022; Zhang & Li, 2022). However,
19 little research has taken place into social identification in the context of esports. The approaches
20 that have been taken have been from the perspective of fan identification with esports (Calapez
21 *et al.*, 2024), with esports teams (Cardoso & de Almeida, 2023) and with video game franchises
22 (Kordyaka *et al.*, 2023). Only Calapez *et al.* (2024) has addressed the effects of fan
23 identification with esports on viewers' behavioural intentions (i.e. eWOM) towards sponsoring
24 brands, the study being limited to in-person sports events. Previous research has not directly

1 addressed consumers' behaviours towards esports sponsoring brands, focusing rather on
2 influencers (e.g. Farivar & Wang, 2022) and streams in other fields (e.g. Hu *et al.*, 2017).
3 Similarly, no previous research has analysed the role of viewers' identification with esports'
4 follower communities. Although esports have characteristics in common with other streaming
5 content and/or content posted by influencers, their specific characteristics require a firm
6 understanding of the mechanisms that underlie viewers' social identification and its effects on
7 viewers' behaviours towards sponsoring brands (Calapez *et al.*, 2024).

8 **3. HYPOTHESES DEVELOPMENT**

9 The conceptual model proposed in the present study is based on the SIT (Tajfel & Turner, 1979)
10 and the literature on influencer marketing and CBOs. Consumers identify with brands when
11 they see them as sharing their values and traits, and when they perceive they make them
12 different from others and that they give them prestige; this identification is part of their self-
13 concept (Bhattacharya & Sen, 2003). When a consumer feels identified with a brand, a sense
14 of community develops, involving the company, its products/brands and other consumers
15 (Martínez-López *et al.*, 2017; Zhou *et al.*, 2012). Identification with a brand community has
16 been defined as the degree to which members see themselves as part of the community
17 (Dholakia *et al.*, 2004). Thus, customer-brand identification is key in the creation of their
18 feelings of community identification (Kucharska, 2019). This is an important relationship in
19 brand communities, but it has been very little studied in influencer marketing (Croes & Bartels,
20 2021; Farivar & Wang, 2022).

21 Esports players/teams are usually identified by a name/nickname and a profile picture. Some
22 have developed their own logos, with particular typography and colours. Thus, they develop
23 differentiated brand strategies, recognisable by their audiences. In addition, due to their media
24 impact, these streamers are regarded in the industry and academia as influencers (Woodcock &

1 Johnson, 2019). The community that develops around an influencer is made up of the influencer
2 him/herself and his/her followers. It features interactions/mutual support within the
3 community, group norms (written/unwritten), a microculture and a sense of belonging (Farivar
4 & Wang, 2022). Considering the literature on brand communities, the following hypothesis is
5 proposed:

6 **H1.** Viewers' identification with an esports player/team positively affects their identification
7 with the player's/team's community of followers.

8 The interrelationships established in brand communities influence their members' behaviours
9 (Algesheimer *et al.*, 2005). In this sense, the literature on CBOs, on the one hand, and influencer
10 marketing, on the other, highlights that the relationships established in communities generate
11 different types of positive behaviours towards the communities themselves and towards the
12 related brands/companies/people (see Algesheimer *et al.*, 2005; Aw *et al.*, 2022; Martínez-
13 López *et al.*, 2017). These include intention to buy the brand's products, recommend the
14 products, and engagement and loyalty towards the brand. Several studies in the field of
15 traditional sports have found that members of a community develop favourable behaviours
16 towards the community in terms of support for the brand/team, attendance at events, etc. (e.g.
17 (Kim & Manoli, 2023) Similarly, the interactions that take place in influencer-follower
18 communities cause the members to develop parasocial relationships with the influencer, and
19 between themselves, which positively disposes them towards the interests of the community
20 (Aw *et al.*, 2022).

21 Influencers' followers develop greater acceptance of, and preference for, the brands and
22 products they recommend (e.g. Farivar & Wang, 2022; Masuda *et al.*, 2022), which increases
23 the followers' purchase intentions (Aw *et al.*, 2022). In livestreaming events, shared
24 experiences and continued participation develop inter-participant connections and foster a

1 sense of community (Hilvert-Bruce *et al.*, 2018); thus, we anticipate that community
2 engagement will enhance viewers' purchase intentions for the sponsor's brands, and for
3 products recommended by esports players and teams.

4 **H2.** Viewers' identification with an esports player's/team's community of followers positively
5 affects their purchase intentions.

6 The interactions that take place in brand communities lead their members to establish links
7 with each other, which in turn lead them to develop positive attitudes and behaviours, such as
8 consumer engagement (Santos *et al.*, 2022). Identification with the community is an indicator
9 of the strength of the community (Kaur *et al.*, 2020) and the success of the commercial
10 transactions carried out in it because it favours members motivation to participate, and to
11 remain, in the community (Molinillo *et al.*, 2020). As Prentice *et al.* (2019) argued,
12 identification with the community leads consumers to exchange knowledge and to engage with
13 the community, which is consistent with social exchange theory. Thus, these authors argued
14 that community identification favours both attitudinal and behavioural engagement. This
15 positive effect of community identification on consumer engagement has been proven in
16 environments such as social commerce (e.g. Molinillo *et al.*, 2020) and CBOs (Kaur *et al.*,
17 2020; Martínez-López *et al.*, 2017; Matute *et al.*, 2019). Therefore, we propose that
18 livestreaming followers who identify with their communities will develop engagement towards
19 the relevant players/teams.

20 **H3.** Viewers' identification with the community of followers of an esports player/team
21 positively affects their customer engagement.

22 In the context of CBOs, it has been observed that the identification of the consumer with his/her
23 group directly or indirectly has positive effects on brand loyalty (e.g. Algesheimer *et al.*, 2005;
24 Kaur *et al.*, 2020; Liao *et al.*, 2023), even in cases where the group member is inactive (Dessart

1 & Veloutsou, 2021). This relationship has also been observed in livestreaming channels, where
2 followers exchange ideas with creators about content, forming a group collective identity that
3 positively influences their behaviours, such as intention to continue consuming content (Hu *et*
4 *al.*, 2017). Similarly, in the context of esports communities, Badrinarayanan *et al.* (2015) found
5 that psychological ties and affinity develop between community members, which favours
6 positive consumer behaviours towards the community and sponsoring brands. Therefore, the
7 identification that the viewer feels with the community helps strengthen ties within the
8 community, strengthening behavioural loyalty towards the player/team.

9 **H4:** Viewers' identification with the community of followers of an esports player/team
10 positively affects their behavioural loyalty.

11 The literature shows that the consumer's identification with the community is a construct that
12 usually mediates consumer-brand relationships in online environments, such as loyalty,
13 intention to continue visiting the website/community, intention to help other followers and
14 intention to share information (e.g. Chang *et al.*, 2020; Liao *et al.*, 2023; Sreejesh *et al.*, 2019;
15 Su *et al.*, 2019).

16 For example, Liao *et al.* (2017) concluded that community identification mediates between the
17 socialisation tactics employed by sponsors of online brand communities (i.e. member
18 education, interaction support and participation feedback) and intention to continue
19 membership. Liao *et al.* (2020) showed that community identification mediates the effects of
20 group similarity, group receptivity and group involvement on brand loyalty. Mills *et al.* (2022)
21 argued that community identification fully mediates the relationship between brand
22 identification and brand loyalty (shown publicly and privately). The ability of esports
23 players/teams to create communities based on their broadcasts leads us to conclude that the
24 mediation demonstrated in the context of CBOs can be extended to esports communities.

1 **H5.** Viewers' identification with the community mediates the relationship between their
2 identification with esports players/teams and purchase intention (H5a), customer engagement
3 (H5b) and behavioural loyalty (H5c).

4 Figure 1 depicts the theoretical model based on the hypotheses.

5 [Please, insert Figure 1 here]

6 **4. METHODOLOGY**

7 *4.1. Data collection*

8 The data used to evaluate the model were collected through an online survey. The
9 questionnaire, based on LimeSurvey, was reviewed by three researchers whose input was used
10 to make improvements. Subsequently, to validate the measurement instrument, a pre-test was
11 carried out with 30 university students, regular esports viewers. This process ensured the
12 questions were understandable. The questionnaire was distributed (in Spanish) to regular
13 esports viewers through specialised forums (e.g. Reddit, Discord) and in the comments/chats
14 of livestreams (e.g. GiantsXes, LVPes). In turn, following a snowball procedure, respondents
15 were asked to distribute the questionnaire to other esports followers. To ensure the validity of
16 the sample, filter questions were included to verify that the respondents were, indeed, regular
17 esports viewers. The fieldwork took place in 2022. No reward was offered for participation. At
18 the start of the questionnaire, it was explained that it would be used by university researchers,
19 that the collection and processing of the data would be anonymous and that the results would
20 help develop esports.

21 A total of 402 responses were collected, of which 396 were complete and valid. Men made up
22 81.1% of the respondents; 71.5% were between the ages of 18 and 24, and 19.2% were between
23 25 and 34; 44.2% had vocational training, 26.8% had attended secondary/high school, 11.9%

1 had high school diplomas/A levels, and 9.1% had completed university studies. Some 54.3%
2 were part-time employees, 27.3% were students, 10.9% were house-persons and 6.1% were
3 full-time employees. The preferred platform for viewing livestreams was Twitch, with 62.9%,
4 followed by Facebook Gaming, with 34.3%. In general, the profile of the participants was
5 similar to that of regular esports viewers (see WinkTTD, 2019).

6 4.2. Measurements and data analysis

7 The model variables were measured on 7-point Likert scales using constructs validated in
8 previous studies. Esports player/team identification was measured on a scale adopted from Liu
9 *et al.* (2015) and Hu *et al.* (2017); community identification on a scale adapted from Yoshida
10 *et al.* (2015) and Hu *et al.* (2017); purchase intention on a scale adopted from Biscaia *et al.*
11 (2013); behavioural engagement on a scale adopted from Cheung *et al.* (2015), and behavioural
12 loyalty following Karjaluoto *et al.* (2016) (Table 1).

13 [Please, insert Table 1 here]

14 The proposed theoretical model was analysed through partial least squares structural equation
15 modelling (PLS-SEM) (Ringle *et al.*, 2014), using SmartPLS v4.1 software. This technique is
16 recommended for small samples, and does not require normal data distribution (Hair *et al.*,
17 2016). In this study, following analysis of the sample, it cannot be assumed that the data were
18 normally distributed (all p-values <0.05). In addition, it has recently been suggested that PLS-
19 SEM assesses mediation better than do covariance-based regression analyses (Hair *et al.*,
20 2019). Prior to the analysis, a pre-evaluation was carried out (using SPSS, version 28) (Hair *et*
21 *al.*, 2017) to identify outliers, missing data, straight-line responses and inconsistent response
22 patterns.

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4 **1 5. RESULTS**
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7 2 The model was evaluated in two phases (Henseler *et al.*, 2018): 1) the reliability and validity
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9 3 of the measurement model were assessed; 2) the validity of the hypothesis testing of the
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11 4 hypothesised structural model was evaluated. Bootstrap analyses were performed on 10,000
12
13 5 subsamples.
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16 6 *5.1. Evaluation of the measurement model*
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18 7 The individual reliability of each of the items was assessed through the factor loadings (λ) of
19
20 8 the measures with respect to their constructs. Carmines and Zeller (1979) proposed that the λ
21
22 9 value should be equal to, or greater than, 0.707. In our case, the items all met this reliability
23
24 10 criterion (Table 2). Construct reliability was assessed using Cronbach's alpha (α) (1951); all
25
26 11 indicator values were above 0.799. In addition, the composite reliability (CR) values (Werts *et*
27
28 12 *al.*, 1974) were above 0.882, and the ρ_A values of the Dijkstra-Henseler analysis (Dijkstra &
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30 13 Henseler, 2015) were above 0.803. Therefore, all construct reliability indicators had acceptable
31
32 14 levels (Nunnally & Bernstein, 1994). Convergent validity assesses the degree to which a
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34 15 construct explains the variation in its indicators (Hair *et al.*, 2019). In this study it was measured
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36 16 through average variance extracted (AVE) (Fornell & Larcker, 1981). This value must be
37
38 17 greater than, or equal to, 0.5, which is the case in this model (see Table 2), with each construct
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40 18 explaining more than 71% of the variance of the assigned indicators.
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44 19 [Please, insert Table 2 here]
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47 20 Discriminant validity was assessed using two methods. First, the inter-construct correlations
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49 21 must be less than the square root of the AVEs (Fornell & Larcker, 1981); second, the heterotrait-
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51 22 monotrait (HTMT) ratio between any two reflexive constructs must be less than 0.8 (Henseler
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53 23 *et al.*, 2016). The values were all within the recommended limits (Table 3). Therefore, the
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55 24 measurement model has discriminant validity.
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4 [Please, insert Table 3 here]
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7 5.2. Structural model analysis
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10 In the evaluation of the structural model, it was observed that player/team identification
11 positively influenced community identification ($\beta_1 = 0.709$, $p < 0.001$), and that the effects of
12 community identification on purchase intention ($\beta_2 = 0.380$, $p < 0.001$), behavioural
13 engagement ($\beta_3 = 0.440$, $p < 0.001$) and behavioural loyalty ($\beta_4 = 0.365$, $p < 0.001$) were
14 positive and statistically significant. Therefore, the data support hypotheses H1, H2, H3 and
15 H4 (see Figure 2).
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22 [Please, insert Figure 2 here]
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25 To test the mediation effects (hypotheses H5a, H5b and H5c) an analysis was made of the
26 indirect effects that player/team identification has, through community identification, on
27 purchase intention, behavioural engagement and behavioural loyalty (Table 4). The percentiles
28 and bias-corrected confidence intervals were examined using a bootstrapping procedure
29 (Roldán *et al.*, 2017) with 10,000 subsamples. The results showed that community
30 identification partially mediates the relationships between player/team identification and
31 purchase intention, and between player/team identification and behavioural loyalty. That is, in
32 both relationships the direct and indirect effects are significant. Finally, the results show that
33 community identification fully mediates the relationship between player/team identification
34 and behavioural engagement; that is, the direct relationship between player/team identification
35 and behavioural engagement is not significant, but the indirect relationship, through
36 community identification, is significant.
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51 [Please, insert Table 4 here]
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1 The values of the coefficient of determination (R^2) show that identification with players/teams
2 explains 50.3% of the variance of community identification. The model accounts for 35.3% of
3 purchase intention, 24% of behavioural engagement and 38.7% of behavioural loyalty. The
4 SRMR value (0.073) is lower than the recommended maximum (0.08) (Henseler *et al.*, 2018),
5 thus we consider the model to be a good overall fit.

6 **6. DISCUSSION**

7 *6.1. Theoretical implications*

8 In the last decade, the esports sector has generated a great deal of academic interest, which has
9 led to an exponential increase in the number of works published. However, very few studies
10 have examined the effects of social identification on esports viewers' behaviours. The aim of
11 this research is to understand the effects of viewers' identification with esports players/teams
12 and their communities on three viewer behaviours: intention to purchase brands
13 sponsored/advertised during games; behavioural engagement; and behavioural loyalty felt
14 towards the player/team. The results of this research make several theoretical and practical
15 contributions to influencer marketing in the emerging esports industry context.

16 First, it was shown that the viewer's identification, both with the player/team and with the
17 community, influences his/her behaviours towards players, teams and sponsoring/ advertising
18 brands. This validates the application of social identification theory to understand the behaviour
19 of esports' viewers, and extends the results obtained in previous research in the field of gaming
20 (Sharma *et al.*, 2021), influencer marketing (Muda & Hamzah, 2021) and livestreaming (Hu *et*
21 *al.*, 2017).

22 Second, it was shown that viewers' identification with the esports player/team is an important
23 predictor of their identification with their community of followers. Therefore, the results

1 represent an original contribution to the literature. Hitherto, studies into online brand
2 communities have demonstrated that consumer-brand identification has a positive effect on
3 brand-community identification (e.g. Kucharska, 2019; Martínez-López *et al.*, 2017).
4 However, they have not shown that viewer identification with the player/team has an effect on
5 the community of followers. These results expand the online community-focused research in
6 the context of esports.

7 Third, it was shown that community identification is a key factor in predicting three positive
8 esports audience behaviours: 1) intention to purchase sponsored/advertised brands (consistent
9 with the proposals of authors in other livestreaming environments) (Hilvert-Bruce *et al.*, 2018;
10 Park & Lin, 2020; Wongkitrungrueng & Assarut, 2020; Zhang *et al.*, 2020); 2) behavioural
11 engagement with the player/team, which extends the findings of previous work in the field of
12 social commerce to the esports environment (Molinillo *et al.*, 2020) and online brand
13 communities (Kaur *et al.*, 2020; Martínez-López *et al.*, 2017; Matute *et al.*, 2019); 3)
14 behavioural loyalty towards the player/team, which extends the results of previous studies in
15 the context of online brand communities (Algesheimer *et al.*, 2005; Kaur *et al.*, 2020). This
16 result is novel: no previous esports' research has applied SIT to these relationships. Similarly,
17 no previous studies have shown that viewer identification with esports' communities has a
18 positive influence on their behaviours towards esports livestreams, such as purchase intentions
19 for sponsoring brands' products/services, behavioural engagement and behavioural loyalty.

20 Finally, the results demonstrated the important role of community identification as a mediating
21 variable of the effects of viewers' identification with players/teams. Specifically, community
22 identification partially mediates the effect that identification with players/teams has on both
23 purchase intention and behavioural loyalty. Conversely, it was shown that community
24 identification fully mediates the effect that player/team identification has on the viewer's

1 behavioural engagement. These results extend to the esports environment the mediating role
2 that previous studies attributed to community identification in the context of online brand
3 communities. For example, Chang *et al.* (2020) in the context of online travel communities,
4 Mills *et al.* (2022) in professional sports and Liao *et al.* (2023) with cell phone brands, found
5 that the consumer's identification with the community had a mediating role between the effects
6 of the consumer's internal state and positive behaviours undertaken towards brands and
7 communities. Therefore, the results of this study make an important contribution to the field
8 by showing the mediating effect of the consumer's identification with the community not only
9 on brands, but also on players and teams.

10 *6.2. Practical implications*

11 From a practical point of view, behavioural engagement and behavioural loyalty are key
12 indicators that measure the level of audience engagement with esports. Behavioural
13 engagement can be achieved by establishing good two-way communication between
14 players/teams and their followers. For example, through encouraging social media interaction
15 (e.g. using streams' chat facilities, real-time surveys) and participation in discussion forums,
16 and by running live events where viewers can interact directly with players (e.g. contests where
17 the prize is to join the streamer in games, private chats). Creating content that invites active
18 participation through polls, contests and discussions could also be effective in encouraging
19 engagement.

20 Loyalty is strengthened when followers feel that they are an integral part of the community,
21 and not just viewers. It's important that players and teams recognise and celebrate the loyalty
22 of their followers. This can include, for example, offering them exclusive content (e.g.
23 unreleased content), access to personalised merchandise and opportunities to engage more
24 extensively with the team/player. The players/teams might also acknowledgment their most

1 loyal followers on social media, award them prizes/benefits and mention community members
2 during livestreams.

3 The results showed, in terms of brand sponsorship and promotion activities, that esports are
4 effective in increasing their viewers' purchase intentions. Companies that want to promote their
5 products through esports are advised to carry out prior analyses of the images of players/teams
6 and their communities. There are many esports players and teams, each with their own
7 idiosyncrasies. The values of the players/teams must be aligned with those of the brand's target
8 audience, so that viewers will feel proud to be identified with them. In addition, the values of
9 the players/teams must be consistent with the values of the sponsoring/promoted brand.
10 Misalignment could affect the credibility of the player/team and their impact on the sponsoring
11 brand.

12 The characteristics of players/teams influence the viewer's identification with their
13 communities of followers. Given the importance of community identification for purchase
14 intention, companies should analyse whether the players'/teams' actions maintain and/or
15 enhance feeling of community. Companies/streamers might stimulate communities, first, by
16 giving their members a greater role in esports broadcasts, for example, by allowing them to
17 vote, designating them as community moderators and by providing them with advice and
18 comments. Second, in communities, viewers interact with players/teams, but they also interact
19 with each other, which strengthens the bonds between the members of the community and
20 enhances community identification. Companies must ensure that, in addition to promoting and
21 facilitating the establishment of inter-member relationships (e.g. meetings, team games), all
22 members of the community continue to show each other mutual respect. This might be
23 encouraged by the establishment of two-way communication between viewers, which would
24 create value, trust and emotional bonds.

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4 1 *6.3. Limitations and future research*
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7 2 The study has some limitations. Collecting data at a particular point in time did not permit an
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9 3 assessment of the consistency of the model's relationships over time. Future work might use
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11 4 longitudinal data to analyse whether continued exposure to esports affects the viewers'
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13 5 identification with the players/teams/communities, and/or their behaviours. In addition, the
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15 6 data were collected in Spain; future studies might increase the validity of the results by using
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17 7 data from other cultural environments.
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20 8 The snowball sampling procedure was used because the target population is difficult to reach.
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22 9 However, the procedure has the important limitation that it is a non-probabilistic method, thus
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24 10 the sampling error could not be estimated. Future research might employ probabilistic sampling
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26 11 procedures. Similarly, errors in the interpretation of the online questionnaire could be reduced
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28 12 by presenting a face-to-face questionnaire to participants in esports events (e.g. tournaments,
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30 13 finals, festivals).
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33 14 Finally, the moderating effect of viewer characteristics and the type of esports genre were not
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35 15 considered. Future studies might evaluate the moderating impact of viewer characteristics (e.g.
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37 16 age, gender, experience) and game type (e.g. multiplayer online battle arena, collectible card
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39 17 games, sport games, real time strategy, racing, fighting games).
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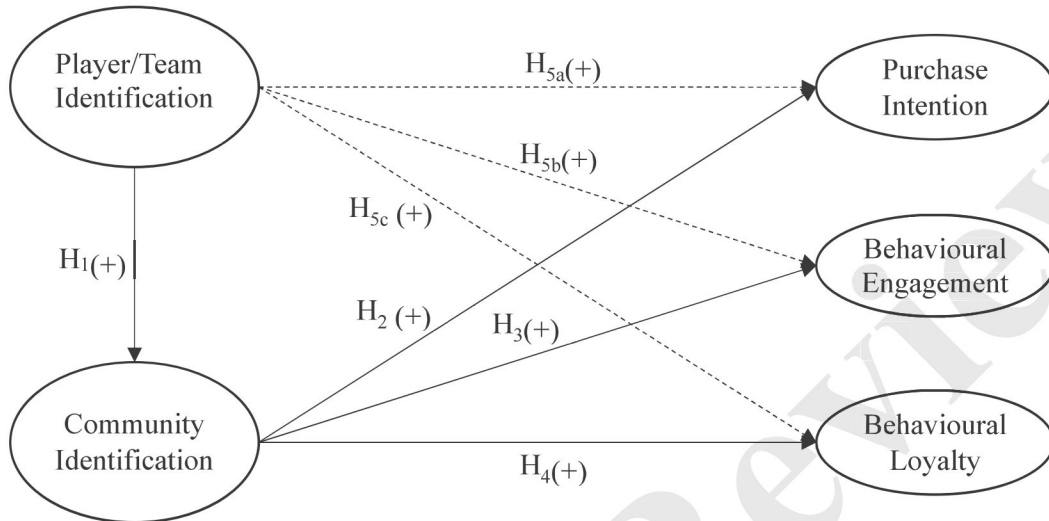
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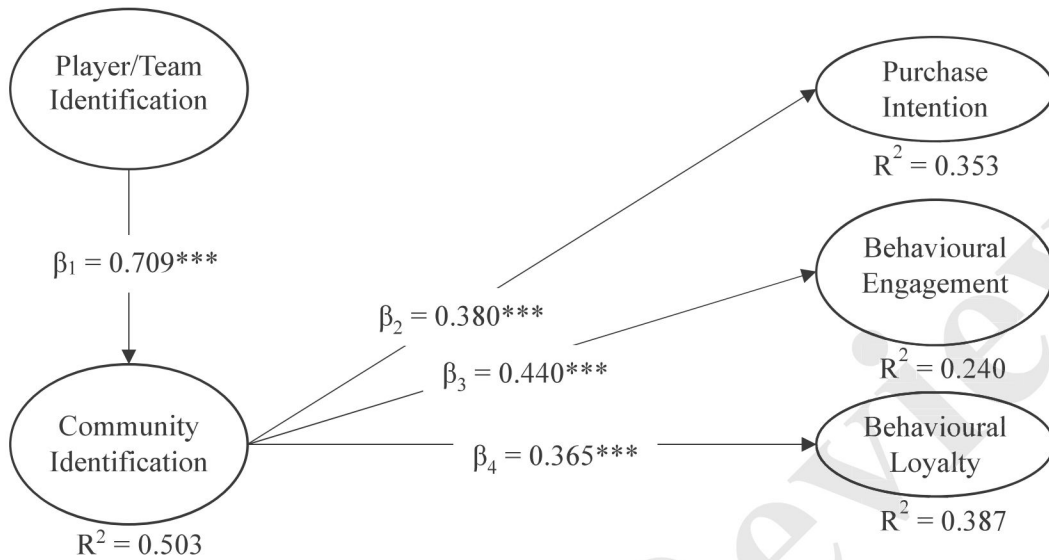
1 **FIGURES**

2 Figure 1. Theoretical model



3 Note. Solid lines indicate a direct relationship, dashed lines represent indirect effects (mediated
4 relationships).
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1 Figure 2. Results of the evaluation of the proposed model



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3 Note. The solid lines indicate a direct relationship; ***p < 0.001; n.s.: not significant.

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4 **1 TABLES**
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7 **2 Table 1. Questionnaire constructs and items**
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Constructs	Items
Player/Team Identification (PTI)	PTI1 I'm proud to follow/watch a stream of this player/team.
	PTI2 The values of the player/team are important to me.
	PTI3 My values are similar to those of this player/team.
	PTI4 The player/team is a role model for me.
Community Identification (CI)	CI1 I identify with viewers who watch the same player/team as me.
	CI2 I feel like I belong to a club/community with other supporters of the same player/team.
	CI3 The player/team that I watch is supported by people like me.
Purchase Intention (PI)	PI1 I would buy products/brands based on the advice given to me by the professional player/professional team
	PI2 I would follow the product/brand recommendations of the professional player/team.
	PI3 In the future, I will buy the products of the brand recommended by the professional player/team.
Behavioural Engagement (BE)	BE1 I will spend a lot of time watching the channel of the professional player/professional team
	BE2 I intend to increase the time I spend watching the professional player/professional team
	BE3 I will frequently visit the channel of the professional player/professional team
Behavioural Loyalty (BL)	BL1 I often watch streaming platforms.
	BL2 In the future I plan to continue watching streams of this type.
	BL3 I often participate in discussions about the players/teams I watch.
	BL4 In the future I intend to speak positively to other people about the players/teams I watch.

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4 Table 2. Reliability and convergent validity of the measurement scales
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7 8 9 10 11 12 13 14 15	Constructs	Outer Loadings (λ)	Cronbach's Alpha	ρ_A	CR	AVE
16	Behavioural Loyalty (BL)	0.741-0.854	0.828	0.858	0.885	0.658
17	Community Identification (CI)	0.801-0.873	0.799	0.803	0.882	0.714
18	Player/Team Identification (PTI)	0.792-0.882	0.824	0.828	0.883	0.654
19	Purchase Intention (PI)	0.792-0.882	0.878	0.883	0.916	0.732
20	Behavioural Engagement (BE)	0.879-0.929	0.929	0.939	0.950	0.825

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4 Table 3. Discriminant validity matrix
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Constructs	BL	CI	PTI	PI	BE
Behavioural Loyalty (BL)	0.811	0.695	0.660	0.619	0.482
Community Identification (CI)	0.811	0.845	0.866	0.675	0.559
Player/Team Identification (PTI)	0.566	0.709	0.809	0.618	0.421
Purchase Intention (PI)	0.542	0.565	0.531	0.856	0.441
Behavioural Engagement (BE)	0.429	0.488	0.380	0.405	0.908

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13 Note. The bold values on the main diagonal are the square roots of the AVEs. The Fornier-Larcker
14 criterion values are below the main diagonal. The HTMT ratio values are above the main diagonal.
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4 1 Table 4. Mediation analysis results
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Relationship	Indirect Effect	Bias Corrected Bootstrap 95% Confidence Level		Direct Effect
		Lower	Upper	
PTI → CI → PI	0.270	0.188	0.356	0.261***
PTI → CI → BE	0.312	0.220	0.412	0.068 ^{n.s.}
PTI → CI → BL	0.259	0.014	0.344	0.308***

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13 2 Note. PTI: Player/Team Identification; CI: Community Identification; PI: Purchase Intention; BE:
14 3 Behavioural Engagement; BL: Behavioural Loyalty; ***: p<.001; n.s.: not significant.
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1 Appendix A. A non-exhaustive list (in alphabetical order) of recent articles on consumer
 2 identification with esports, streaming and influencer content

Author(s)	Context	Sample	Construct	Method	Findings
Calapez <i>et al.</i> (2024)	Esports (event)	356	Fan identification	SEM	Fans who strongly identify with esports show a more positive attitude towards brands sponsoring in-person events.
Cardoso & de Almeida (2023)	Esports	1420	Fan identification	SEM	Fan identification with Flamengo's traditional soccer team significantly influences identification with its esports team.
Croes & Bartels (2021)	Influencer marketing	415	Social identification with social influencer	SEM	Social identification with social influencer mediated the relationship between motivations to follow influencers and ad-clicking behaviour and purchase behaviours.
Farivar & Wang (2022)	Influencer marketing	467	Social identity	PLS-SEM	Social identity has a greater effect on followers' purchase intentions than does follower-influencer interest fit and the influencer's opinion leadership.
Hsieh (2023)	Influencer marketing	510	Cognitive identification and affective identification	PLS-SEM	Cognitive identification and affective identification have significant impacts on purchase intentions and intentions to engage in eWOM.
Hu <i>et al.</i> (2017)	Livestreaming	412	Broadcaster identification and group identification	PLS-SEM	Broadcaster identification and group identification positively affect intention to continue watching.
Kim & Manoli (2023)	Sports	400	Team identification and online community identification	SEM	Online community identification is a significant driver of all constructs: team identification, intention to attend and intention to post positive WOM.
Ko (2023)	Livestreaming shopping	302	Identification	PLS-SEM	Identification with the streamer is the core condition for intentions to continue to watch and to purchase.
Kordyaka <i>et al.</i> (2020)	Esports	216	Franchise identification	SEM	Franchise identification has the potential to explain media engagement.

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Lim <i>et al.</i> (2020)	Game live streaming	485	Wishful identification	SEM	Wishful identification has indirect effects on behavioural loyalty through parasocial relationship (PSR) with the streamer.
Quian (2022)	Livestreaming	233	Viewer identification	PLS-SEM	Viewer identification with co-streamers significantly influences the fit between co-streaming and streamers, which in turn impacts on viewers' intentions to continue watching.
Sharma <i>et al.</i> (2021)	Gaming	404	Team identification	SEM	Team identification and adherence to team norms influence team commitment.
Zhang & Liu (2024)	Game livestreaming	565	User identification	Multiple regression analysis	User identification positively influences preliminary and further engagement behaviours.

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