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Abstract: This study aims to examine firstly the motivations of esports spectators driving them to engage in consumption behaviour, and secondly, two spectator groups (League of Legends, LOL; Hearthstone) to compare the findings of the independence model and the competing model. In recent decades, the concept of esports has emerged as a major component of the sports industry and, therefore, of the global economy. However, the basic functioning of this new sector is relatively poorly understood. This study considers consumer motivations as they relate to esports and aims to assess how selected motivations interact. The motivations chosen in five categories were adopted from the Uses and Gratifications Theory. The independence model (based on Uses and Gratifications Theory (UGT)) and competing model (based on multiple theoretical perspectives) were applied to the LOL and Hearthstone spectator groups. Data (n = 574) were collected via online surveys with cross-validation measured and established between the two groups. The findings showed that social integrative motivations positively impacted consumption behaviour across game genres. Affective motivation partially mediated the relationship between social integrative motivation and consumption behaviour in LOL, and cognitive and personal integrative motivations positively influenced consumption behaviour in Hearthstone. The tension-release motivation had no significant association with consumption behaviour for spectators of either game. The findings can help the commercial interests of different esports game genres to predict why people consume particular esports and thus aid effective marketing strategies.

Keywords: motivation; esports; uses and gratifications theory; consumption behaviour

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1. Introduction

Esports have become popular spectator events globally [1]. Global viewing and participation are factors contributing to the growth of the market size of esports [2]. It was forecast that, by the end of 2017, the associated revenue would grow to USD 696 million, with USD 64 million contributed by consumer spending on tickets and merchandise. By this time, the global esports audience would have reached USD 385 million in value, consisting of 191 million esports enthusiasts and 194 million occasional viewers [3]. However, by 2021, the global esports industry generated around USD 1.1 billion and reached around 729 million viewers [4]. With the rise of the esports industry, professional teams and leagues have been established around the world.

To understand the reasons for people attending sports games, motivation, as a specific topic of research in sports marketing, is especially relevant. In recent years, with the increasing popularity of participation and viewing, the study of esports has grown rapidly. Studies in this field often explore the development of the industry [5,6], improvements in

technology [7,8], experiential value [9] and the consumers of esports. Studies on consumers focus especially on the motivation to play online games [10–12], but have so far considered the motivation behind watching esports games. Thus far, some empirical studies [1,13–16] and a systematic review [17] have considered the reasons for watching esports. However, esports spectator motivations and behaviours may differ with variations in the types of game genres [1]. This is because some games are highly competitive, while others have a freeform playing style, and viewing experiences reflect this [14].

Although researchers have proposed that specific motivational factors drive people to participate in esports [13,14], spectators' decisions are highly complex. Sometimes, measured motivations have been shown to have low or medium effects on consumption behaviour [18,19]. Therefore, it is possible that there are other factors influencing spectators' involvement. By identifying the various motivations that drive them to seek specific activities and experiences, motivation theory attempts to provide answers to the questions of why people participate [20]. We believe that motivations directly affect and drive sports fans' consumption behaviour, but, at the same time, they inter-relate [21], with interconnections between motivations. These relationships can help to clarify the antecedents for consumption behaviour. Previous research on esports consumers' motivations adopted the Uses and Gratifications Theory (UGT) [14,22] and sports consumption scales, such as the Motivation Scale for Sport Consumption (MSSC) [13,16] and Sport Interest Inventory (SII) [16], to conceptualize esports consumers' motives. Previous studies provided valuable insight into understanding esports consumers' behaviours, but may have ignored the possible interactions of motivations and potential theoretical understanding of esports consumers' motives.

Given the existing research gaps, the current study, based on the UGT for the independence model, attempts to progress our theoretical understanding of sports consumption by using an alternative model with fewer assumptions. In this research, the five UGT motives were discussed with intrinsic (i.e., cognitive, affective and personal integrative) and extrinsic (i.e., social integrative and tension release) motivations and by referring to sports consumer motivation research [23]. Considering that human motivation theory aids a comprehensive theoretical dialogue beyond the UGT in esports spectatorship, this work differs from most previous esports studies. Furthermore, Sjöblom et al. [24] posited that different genre types may afford varying gratifications, as slower-paced games allow more social interaction than faster-paced ones. In the current study, for example, Hearthstone is much slower-paced than LoL. By applying a hybrid model to explore different esports genres, practitioners can better understand both similar and different gratifications afforded by different games. Guided by Bagozzi's [25] appraisal–emotional reaction–coping/behaviour framework, the current study proposed the competing model to address the interrelatedness between cognitive, social integrative and affective motivations within the UGT. This can facilitate a deeper understanding of UGT beyond the exploration of bivariate relationships between motivations and consumption behaviour in previous esports spectator studies [14,22,24,26].

This study aims to fill research gaps by firstly examining the spectator motivations behind the consumption of esports and secondly comparing findings from the independence model and the competing mode, between two spectator groups (League of Legends (LOL) and Hearthstone). This approach allows esports marketers to discover their target market segmentation and adopt more appropriate marketing strategies. Our research is informative to esports practitioners as well as professional sports leagues. The study is based on two kinds of popular esports with slower-paced (collectable card games) and faster-paced (multi-player online battle arena and real-time strategy) games.

2. Literature Review

2.1. Esports

The word "esports" derives from electronic sports and refers to competition based on video games, which use networks, software and hardware equipment as platforms.

These games comply with specific rules and apply strategies and skills [27]. Wagner [28] defined esports as a segment of sports activities in which people train and develop mental or physical abilities by using information and communication technologies.

With advances in online gaming technologies, the mode of esports has transformed from human-versus-machine to human-versus-human [29]. Thus, esports has become more like competitive forms of traditional sports. People have begun paying attention to esports, such as watching matches, discussing them with their communities, following tournament programmes and supporting teams. Esports tournaments are held around the world, including the World Cyber Games (WCG), Major League Gaming (MLG), the Championship Gaming Series (CGS) and the world championships of each popular online game. Esports are attracting more and more spectators. In 2009, the number of esports participants reached 85 million worldwide and the value of the industry reached USD 100 billion [30]. The growth of the global esports audience, including enthusiasts and occasional viewers, was estimated at 235 million in 2015, 323 million in 2016, 385 million in 2017 and 589 million in 2020 [3]. A milestone in the esports industry was when, in 2013, esports was included in the Asian Indoor and Martial Arts Games (AIMAG) held in Incheon, South Korea.

The emerging statistics are remarkable. For example, the 2014 Major League Baseball World Series reached an average of 15.8 million viewers, the 2014 NBA Finals series reached 15.5 million viewers and the 2014 Daytona 500 reached an average of 9.3 million viewers. Furthermore, the League of Legends, one of the most popular esports games, 2014 World Championship was broadcast online and attracted over 27 million viewers [31]. These numbers indicate that esports games are now watched by more viewers than most traditional professional sports games. Sports fans generally watch their events on television or via Internet broadcasts. However, due to broadcast technology and the development of the Internet, esports games are broadcast not only by television, but also by streaming websites. Additionally, there is a widening of consumers' tastes, as they are now able to watch sports programmes via many different channels because broadcast technology has broadened the market [32]. Thus, there are increasing opportunities for people to see esports events, and these opportunities are being taken.

The current study focused on two different types of games, namely League of Legends (LoL) and Hearthstone: Heroes of Warcraft (shortened to Hearthstone), which are both popular worldwide. League of Legends is a multiplayer online battle arena (MOBA) game, also known as a real-time strategy game. In this case, developed and operated by Riot Games of Santa Monica, California, two teams generally consisting of five players each compete against each other, with each player controlling a single character [33]. In 2013, this esports game had over 70 million registered players, including 32 million monthly active players [34]. Hearthstone, on the other hand, is an online collectable card game developed and operated by Blizzard Entertainment and, in 2014, had approximately 20 million registered users [35]. The difference between the two games is the game style. League of Legends is played in real-time, uses a role-play style and has a relatively high intensity level of competition [36]. Hearthstone, played with digital cards, has a relatively slower tempo and requires a high intensity level of strategy [37].

2.2. Consumption Behaviours

In previous studies [38], sports consumption behaviours were represented in three dimensions, namely (1) usage, (2) purchasing merchandise and (3) word-of-mouth communication. Gray and Wert-Gray [39] explained these three dimensions and used them to examine the impact of team identification and satisfaction with team performance in a prior study. Usage, which includes on-site attendance and online attendance in esports, is considered the primary consumption behaviour [39]. Purchasing merchandise means that fans purchase clothing or other goods displaying the team's logo, name, or colours [39]. Word-of-mouth communication refers to fans talking about the team, including games, players, personnel changes and performance expectations [39]. The above three consumption

behaviours can help teams to generate revenue and enhance their emotional connections with esports spectators. Hedlund [40] applied similar concepts in a study of sport-fan consumption communities. This work used (i) intentions to attend teams' games, (ii) purchase of team merchandise and (iii) recommending the teams' games to others. These three factors were applied to measure the consumption behaviour intentions of sports fans.

2.3. Motivations

Many studies have been conducted into sports fan motivations [41–43]. The motivation of sports fans is why they consume sports by attending games, purchasing team merchandise and watching games on television or the Internet [44]. Understanding the motivations of different sports fans will allow sports marketers to better understand how to attract their interest.

Certain previous studies focused on the motivations for playing games and participating in esports. Although gamers and spectators are both involved in esports activities, the motivations for watching and gaming differ greatly. Spectators of esports watch, but do not directly interact with, the game [45]. Spectators are a unique group in the esports industry and their motivations need more exploration. To understand more clearly the motivations of esports spectators, it is necessary to investigate their particular needs, which differ from those of gaming. The motivations of esports spectators have been studied using both the Sports Fan Motivation Scale [46] and the Motivation Scale for Sports Consumption [13,47]. With these two scales, the greatest motivational factors were found to be entertainment and drama on the Sports Fan Motivation Scale [26] and player skills on the Motivation Scale for Sports Consumption [26]. In a study of StarCraft games by Pyun et al. [48], the key motivational factors for spectators were accomplishment, dramatic situations, getting away from everyday life, knowledge of the game, attractiveness of the players and recreation. Lee et al. [22] identified the highest motivational factors of esports spectators in League of Legends games to be drama, recreation, commentating and skills. These studies all showed that specific motivational factors drive people to become spectators of esports games. Hamari and Sjöblom [13] found that escapism, acquiring knowledge about the games being played, novelty and esports athlete aggressiveness were motivational factors positively related to esports viewing frequency. However, according to previous studies [21], potential interconnections may exist between motivations and consumption behaviour. In this study, the relationships between motivational factors were examined to clearly demonstrate the effect of consumption behaviours on esports spectators.

To predict more reliably the motivations of esports spectators, the Uses and Gratifications Theory (UGT) was applied in this study. The UGT was first used by Herzog [49] to understand the motivations of traditional media users (i.e., radio and television users). After that, the UGT was mainly used in media effects research to examine motivations leading users to seek media consumption to fulfil an individual's gratification needs. Contrary to the idea that mass media positively influences people, the UGT considers that people actively seek media [50]. From the perspective of the UGT, motivation plays an important antecedent role in media involvement [51]. The UGT has been used to examine the motivations of esports and online game consumers [11,14,52]. In the UGT, needs are often classified into five categories, including (1) cognitive, (2) affective, (3) personal integrative, (4) social integrative and (5) tension release [52,53]. Current esports spectators can watch games on a variety of devices, such as computers, televisions, tablets and mobile phones. The use of the UGT seems appropriate for most effectively addressing the motivations of esports spectators.

To measure the motivations of esports spectators, the needs in the UGT as categorized by West and Turner [53] were adopted as the motivational factors; these include (1) cognitive motivation, (2) affective motivation, (3) personal integrative motivation, (4) social integrative motivation and (5) tension release motivation. Cognitive motivation is related to an intrinsic desire for the acquisition of information, knowledge and comprehension [54]. Shaw [26] indicated that learning player skills is a key motivation for esports spectators as

they believe that they can see tactics and team strategies being used by watching esports. Lee et al. [22] also suggested that people watch esports games to enhance their own gaming skills. Hamari and Sjöblom [13] found that people are motivated to watch esports for the acquisition of knowledge. Sjöblom and Hamari [14] found that cognitive motivations show a positive relationship with hours spent watching others playing video games. Following from these researchers, the first hypothesis of this study is:

H1. *Cognitive motivation is positively associated with consumption behaviour.*

Affective motivation is related to emotional level and intrinsic desire for pleasure, entertainment, excitement and aesthetics [54]. Intrinsic motivation has been found to be positively associated with consumption behaviour. For instance, Bailey et al. [55] found that consumers take pleasure in activities promoting a green environment tend to prefer to buy green products. In the information technology literature, Lin and Lu [56] also found that intrinsic motivation facilitated the use of pleasure-oriented information systems. More recently, Ali et al. [57] presented empirical evidence that enjoyment and excitement in affective motivation encourage green purchasing intentions. In the esports literature, Cheung and Huang [45] found that affective motivations were positively related to esports consumption. Previous studies [7,58] indicate the importance of entertainment for media usage and that hours spent watching others playing video games increased with affective motivations [14]. Shaw [26] argued that esports fans seek excitement by watching esports games and enjoy the unpredictability of a dramatic esports match. Likewise, Ma et al. [1] found that esports spectators of sports game genres with higher aesthetic motives are more likely to spend time on live-streaming platforms. Therefore, the second hypothesis is:

H2. *Affective motivation is positively associated with consumption behaviour.*

Personal integrative motivation is related to the need for respect, confidence, reassurance of status and self-esteem [52,54]. It can be predicted that spectators seek personal integrative needs from watching esports games. In previous studies, self-esteem had a greater effect on younger than older esports fans [26]. Sjöblom et al. [24] found that a slow-paced game genre afforded more personal integrative gratifications to esports viewers. This is because the game genre inherently allows more interactions and a higher level of communication, through which users' needs for personal integrative gratifications are likely to be fulfilled. Sjöblom and Hamari [14] found that a positive correlation between personal integrative motivations and streamers followed. Previous studies [52–54,59] described personal integrative motivation as strengthening credibility, stability, confidence and status with the self. On the other hand, Sjöblom and Hamari [14] were the only researchers to investigate and confirm the relationship between personal integrative motivation and consumption in esports. Although there is limited empirical research exploring personal integrative motivation and consumption behaviour, we expect esports spectators' watching, purchasing and word-of-mouth (WoM) intentions to be positively affected by increased levels of personal integrative motivation. Thus, the third hypothesis is:

H3. *Personal integrative motivation is positively associated with consumption behaviour.*

Social integrative motivation is related to the affiliation needs of people who want a sense of belonging, to be recognized as part of the group and to interact with others [54]. If a person is highly identified with a certain group, he or she may be more likely to act on behalf of the group (e.g., WoM) because of a strong sense of belonging [60]. In previous studies, from the perspective of the UGT, the social aspect was recognized as an important factor in spectating [61–64]. For example, esports viewers watching for longer periods were more likely to be those watching with friends or other fans [26]. Similarly, social interaction was found to be positively associated with esports subscriptions [1]. Qualitative observations noted the importance of social interaction in watching streams and esports [7,14,45]. Sjöblom and Hamari [14] found positive relationships between social integrative motivations and hours watched, streamers watched, streamers followed and

streamers subscribed. Qian et al. [65] indicated that a number of esports fans started watching esports games because of established and close online friendships. Similarly, a sense of belonging established among esports fans, as well as the camaraderie between viewers, players and streamers, attract people to watch esports. More recently, Qian et al. [66] found relatedness (bonds with friends and meeting others with similar interests online) to be the most salient psychological need. This was positively related to esports consumption (esports-related spending). Thus, the fourth hypothesis is:

H4. *Social integrative motivation is positively associated with consumption behaviour.*

The tension release motivation relates to the need for escape and diversion from daily life and problems [54]. Sjöblom [52] indicated that people seeking escape and tension release tend to increase their video game streaming usage. Hamari and Sjöblom [13] noted how escaping everyday life had a significant positive effect on the frequency of watching esports. The Catharsis Theory considers recreational activities as an outlet to release negative emotions [67]. Individuals suffering from tension or anxiety seek negative emotional release by engaging in relaxing activities [68]. The Stimulation Theory [69] takes a contrary opinion to the Catharsis Theory, namely that watching violence gives more aggressive prompts to spectators. Taking a similar viewpoint to that of the Catharsis Theory, Sherry [70] argued that individuals engage in video games to manage their arousal and negative emotions, while Ma et al. [71] considered that competitive activities were for the release of aggressive emotions. They found that non-competitive activities can remove or reduce an abnormal, or perhaps undesirable, mental state. Therefore, people may use different kinds of recreational activities to release their tension. More recently, Sjöblom and Hamari [14] and Hamari and Sjöblom [13] found that tension release motivations are positively related to esports consumption (e.g., esports watching frequency, number of hours that users watched steams, numbers of streamers watched and number of streamers followed). It is, therefore, possible that esports spectators watch games to experience tension release. Therefore, the fifth hypothesis is:

H5. *Tension release motivation is positively associated with consumption behaviour.*

To test the relationships among the motivational factors and consumption behaviour, we describe a relatively simple model indicating that there are no links between the motivational factors. In other words, these five factors each have an independent influence on consumption behaviour. We call this model the 'independence model'. With the 'independence model', motivation factors directly affect consumption behaviour and are independent of each other. In a previous study, Lee and Schoenstedt [72] found that specific motivational factors had a significant impact on esports involvement. Furthermore, Weiss [11] indicated that specific motivational factors drove the continuous use of esports. These studies indicated that motivations drive people to engage in esports consumption.

The relationships between motivations and consumption behaviour were analysed as bivariate relationships in most previous esports spectator studies [13,14,22,26]. However, it is unclear whether motivational factors influence each other. Maslow et al. [73], considered that the human mind is complex and that multiple processes operate synchronously; thus, different motivations can occur simultaneously. No motivations can be regarded as isolated or discrete, as they are related to each other [21]. Thus, it is possible that there are potential interrelationships among motivational factors.

Previous findings indicate that a relationship exists between the cognitive and affective components. These components are two key mental representations for consumers to make decisions [74]. Cognition represents how an individual would deal with external information of an experience to form their own opinions and judgments [75]. Affective responses are derived from an individual's consumption experience [76]. In previous studies, there is recognition that the cognitive component is an antecedent of the affective component. Anand et al. [77] considered that the affective response is the last procedure in a series of cognitive processes. Moreover, in a study of consumer satisfaction, cognitive

and affective elements were recognized as antecedents of satisfaction and to further influence consumption behaviour [78,79]. del Bosque and San Martín [75] reported that there are interrelationships among psychological variables and that they have an influence on behavioural intentions. From the destination image perspective in a tourism study [80], it was the influence of cognition on affective evaluations was supported by evidence from neuroscience [81,82]. These studies showed that the cognitive component is an antecedent to the affective component, but the effect of the cognitive factor on the affective factor in esports spectating requires examination through empirical research. Thus, the sixth hypothesis is:

H6. *Cognitive motivation is positively associated with affective motivation.*

In addition to the cognitive–affective relationship, Rubin et al. [83] found that social motivation is closely related to affective motivation, while people seeking interpersonal communication or the elimination of loneliness want to achieve pleasure, affection and relaxation. In a previous study, it was also found that older adults with lower feelings of loneliness responded with pleasure and relaxation. Individuals can satisfy their affective motivation with the social community [84]. Theoretically, Ryan and Deci's [85] self-determined theory suggested that extrinsic or control-orientated motivation (e.g., social integrative motivation) could facilitate intrinsic motivation (e.g., affective motivation). This means that social integrative motivation is probably an antecedent of affective motivation. Similarly, seeking companionship is a natural human tendency [86]. Furthermore, watching esports via live streaming platforms, such as Twitch, Facebook, Instagram, or YouTube, offers a social environment for interacting with those sharing similar interests and for bonding with friends [72]. These platforms can offer more exciting and interactive features in real-time [87] which may be like live sports fans' participation with supporters in physical sports [88]. There is scant literature testing the social integrative and affective motivation relationship empirically. However, based on the few empirical studies and the argument above, it is logical to contend that, with higher levels of social integrative motivation, esports spectators experience increased affective motivation (e.g., entertainment, pleasure and excitement). Therefore, the final study hypothesis is:

H7. *Social integrative motivation is positively associated with affective motivation.*

Previous research on esports consumption behaviour focused on the process from motivation to consumption behaviour, rather than on the interaction of motivations. The interrelationships among motivations and the process by which motivational factors influence consumption behaviour demand further empirical study.

The 'competing model' was developed to describe alternative sets of relationships or processes that might exist among motivational factors and consumption behaviours. The independence model illustrates that motivational factors are directly related to consumption behaviours. The key difference between the independence model and the competing model is the paths from cognitive to affective motivation, and from social integrative to affective motivation. These hypothetical relationships are summarized in Figures 1 and 2.

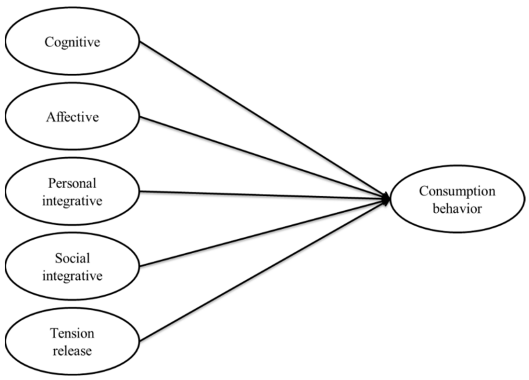

Figure 1. The independence model.

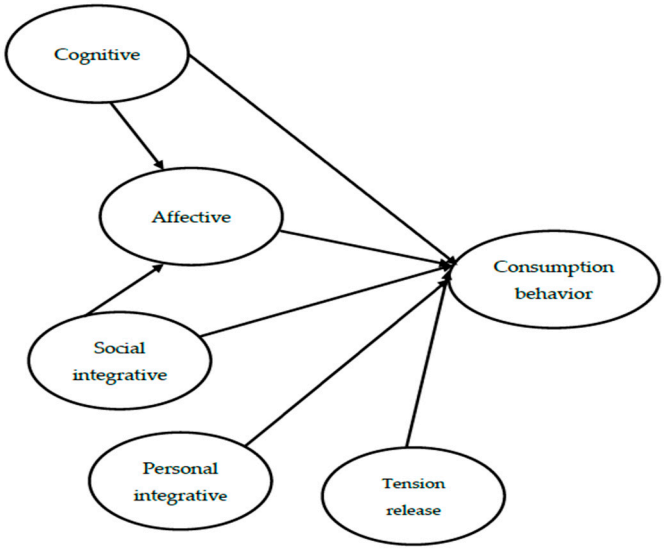

Figure 2. The competing model.

3. Method

3.1. Data Collection and Participants

The subjects of this study are online spectators of League of Legends and Hearthstone. The League of Legends professional league's focus is based on Taiwan, Hong Kong and Macau, with the League of Legends Masters Series (LMS) composed of eight teams each season. The teams in each season are different because of the promotion and relegation rules. The LMS was founded in 2014 and is a way to qualify for the World Championship. The official Hearthstone tournament was held by Blizzard Entertainment in the Asia–Pacific area in the spring of 2016 and named the Hearthstone 2016 Asia–Pacific Spring Championship. This survey was conducted with the online community on the largest bulletin board system (BBS) based in Taiwan, namely PTT (https://term.ptt.cc (accessed on 20 October 2020)). Participants completed the questionnaire during the LMS regular season in 2016 and the Hearthstone 2016 Asia–Pacific Spring Championship in June 2016. The sample was of users engaging in forums for League of Legends and Hearthstone. A purposive sampling method was used and 574 valid responses (n = 376, LOL; n = 198, Hearthstone) were obtained. Respondents under 18 were not excluded from data analysis, firstly, because both anonymity and unidentified personal information were ensured when collecting data, and, secondly, adolescents are one of the most active esports communities [17]. For LOL, 68.1% of the respondents had experiences of watching esports games for more than three years and 71.3% of the respondents watched them via Twitch. A proportion of 46.3% of the respondents spent at least three days a week watching esports and 60.9% spent at least two hours each time. For Hearthstone, 45.5% of respondents had experiences of watching esports games for more than three years and 93.9% of the respondents watched them via Twitch. A proportion of 45.5% of the respondents spent at least three days a week watching esports and 43.9% spent at least two hours each time.

3.2. Instrumentation

To measure motivation and consumption behaviour, the items were adapted from previous studies. The main part of the questionnaire for this study was made up of 2 sections and had 29 items. The first section had 5 factors with 20 items to measure motivations including cognitive, affective, personal integrative, social integrative and tension release [58,59,89]. The motivational factors and items in the study were based on the lens of the UGT. The second section had 3 factors with 9 items for measuring consumption behaviours that captured the intentions to watch, purchase intentions for merchandise and word-of-mouth intentions, and was adapted from Hedlund [40]. All items in the questionnaire were measured on a 7-point Likert scale, ranging from strongly

disagree (1) to strongly agree (7). The items included in the scale are listed in Table 1. Along with the above items, we also surveyed the respondents regarding their involvement in esports and their demographic variables in the third section. These included their most frequently watched esports games, gender, age, education and occupation.

Table 1. Factors and items in the questionnaire with sources.

Factor and Item	Original Scale	Sources
Motivation		
Cognitive motivation Watching esports games helps me learn information about game strategies. Watching esports games helps me see what game tactics are out there. Watching esports games helps me get information on learning to play games. Watching esports games helps me understand information on game tricks.	Information-seeking	Papacharissi and Rubin [58]
Affective motivation Watching esports games is enjoyable. Watching esports games is entertaining. Watching esports games relaxes me. Watching esports games allows me to unwind. Watching esports games is a pleasant rest	Relaxing entertainment	Smock et al. [89]
Personal integrative motivation Watching esports games makes me feel that I am using my time well. Watching esports games makes me order my day. Watching esports games makes me strive for a higher standard of living. Watching esports games makes me feel that I am influential. Watching esports games makes me feel that others think as I do.	Strengthen credibility, stability and status with self	Katz et al. [59]
Social integrative motivation I do not feel alone when I watch esports games. I watch esports games when there is no one else to talk or be with. Watching esports games can make me feel less lonely.	Companionship	Smock et al. [89]
Tension release motivation I can forget about school, work, or other things when I watch esports games. I can get away from the rest of my family or others when I watch esports games. I can get away from what I am doing when I watch esports games.	Escapism	Smock et al. [89]
Consumption behaviour		
Intentions of watching It is likely I will watch esports games in the near future. I expect to watch esports games in the near future. I will watch esports games in the near future.	Attendance intentions	Hedlund [40]
Purchase intentions of merchandise It is likely I will purchase esports team merchandise in the near future. I expect to purchase esports team merchandise in the near future. I will purchase esports team merchandise in the near future.	Purchase intentions	Hedlund [40]
Word-of-mouth intentions It is likely I will recommend esports games to friends. I expect to recommend esports games to friends. I will recommend esports games to friends.	Word-of-mouth intentions	Hedlund [40]

3.3. Data Analysis

The data were analysed using the Statistical Package for Social Sciences 25.0 (SPSS 25.0) and Amos 25.0. The statistical technique used was structural equation modelling (SEM). A confirmatory analysis (CFA) using Amos 25.0 was conducted to confirm the factor structure of the research models. The structural model was tested via the reliability, convergent and discriminant validity of the main constructs. In the CFA, two items with

lower factor loading of affective motivation were removed from the structure to better fit the model. The reliability was assessed using composite reliability (CR) and the values of each latent variable were above the recommended value of 0.70 [90]. Estimates of reliability using Cronbach's α were calculated for each construct and item within a threshold value of 0.70 [91]. The validity assessment used discriminant validity. The significance of each factor and average variance extracted (AVE) were used to assess convergent validity, while the discriminant validity was indicated when the AVE measure for each construct exceeded the squared correlations between the respective constructs [84]. The measurement fit was tested using fit indices, including the chi-square (χ2), comparative fit index (CFI), incremental fit index (IFI) and root-mean-square error of approximation (RMSEA) [92,93]. The thresholds from the recommendation were at least 0.90 for CFI and IFI for an acceptable fit and an RMSEA value less than 0.80 for an acceptable model fit [92–94].

4. Results

Of the 574 valid respondents, 89% were male. The respondents' age groups were: 12% under 18 years old, 65% 19–24 years old, 19% 25–30 years old, 3% 31–35 years old and 0.7% 36 years and above. The gender and age profiles of the sampling population were similar to those in the comprehensive investigation of people watching esports on the internet by Hamari and Sjöblom [13]. Global commercial market research also suggests a younger, male-dominated market for viewing esports [95–97]. Most respondents (66%) had a university education. Three-quarters (75%) were students, while 17% were full-time employees. Of all valid respondents, League of Legends games were the most frequent, accounting for 66% and Hearthstone accounted for 35%. On average, 36.1% tended to spend between one and two hours watching esports each time and 32.4% spent between two and three hours. A proportion of 42.9% watched esports between two and three days weekly, 31.8% spent one day and 25.2% spent four days or more.

4.1. Measurement Model

The data were examined for normality, estimating skewness and the Kurtosis value for each item. The skewness was found to be within the acceptable range, as the absolute score was less than 3 [94]. The Kurtosis value was also acceptable, as the absolute score was less than 10 [94].

Tables 2 and 3 show the alpha (α) values ranging from 0.73 to 0.97 for the two groups and the standardized factor loading of each item for either the League of Legends or Hearthstone spectators, which were all above or equal to 0.5 and were statistically significant in the CFA. The CR measures were calculated and the values of each latent variable were above the recommended value of 0.70 [90]. The AVEs ranged from 0.50 to 0.69, supporting the convergent validity [59]. Finally, the squared correlation among factors was less than the AVEs of each factor, supporting adequate discriminant validity between these constructs [90].

Table 2. Descriptions, tests of normality, CR and AVE values (League of Legends, n = 376).

Items	M	SD	Skewness	Kurtosis	SFL
Cognitive motivation (α = 0.89) (CR/AVE = 0.89/0.66)					
Watching esports games helps me learn information about game strategies.	6.00	1.06	−1.43	3.39	0.82
Watching esports games helps me see what game tactics are out there.	5.87	1.06	−0.83	0.77	0.80
Watching esports games helps me get information on learning to play games.	5.67	1.20	−0.80	0.55	0.80
Watching esports games helps me understand information on game tricks.	5.78	1.10	−0.85	0.78	0.83
Affective motivation (α = 0.85) (CR/AVE = 0.87/0.69)					
Watching esports games is enjoyable.	6.26	0.90	−1.25	2.29	0.92

Table 2. *Cont.*

Items	M	SD	Skewness	Kurtosis	SFL
Watching esports games is entertaining.	6.37	0.80	−1.13	0.74	0.86
Watching esports games is a pleasant rest	6.05	0.98	−0.95	0.81	0.69
Personal integrative motivation (α = 0.86) (CR/AVE = 0.86/0.55)					
Watching esports games makes me feel that I am using my time well.	4.13	1.52	0.09	−0.48	0.74
Watching esports games makes me order my day.	3.81	1.48	0.24	−0.24	0.80
Watching esports games makes me strive for a higher standard of living.	4.02	1.50	0.01	−0.26	0.75
Watching esports games makes me feel that I am influential.	3.86	1.65	0.10	−0.67	0.76
Watching esports games makes me feel that others think as I do.	4.27	1.54	−0.23	−0.37	0.65
Social integrative motivation (α = 0.77) (CR/AVE = 0.77/0.54)					
I do not feel alone when I watch esports games.	5.14	1.41	−0.59	0.05	0.50
I watch esports games when there is no one else to talk or be with.	5.10	1.57	−0.84	0.30	0.75
Watching esports games can make me feel less lonely.	4.79	1.61	−0.41	−0.37	0.91
Tension release motivation (α = 0.73) (CR/AVE = 0.80/0.58)					
I can forget about school, work, or other things when I watch esports games.	5.00	1.64	−0.78	0.00	0.61
I can get away from the rest of my family or others when I watch esports games.	3.85	1.69	0.12	−0.69	0.84
I can get away from what I am doing when I watch esports games.	4.48	1.67	−0.32	−0.58	0.81
Consumption behaviour (α = 0.75) (CR/AVE = 0.75/0.51)					
Intentions of watching	5.38	1.36	−0.99	1.10	0.68
Purchase intentions	4.10	1.75	−0.08	−0.86	0.68
Word-of-mouth intentions	4.99	1.43	−0.72	0.44	0.77

SFL = Standardized factor loading.

Table 3. Descriptions, tests of normality, CR and AVE values (Hearthstone, n = 198).

Items	M	SD	Skewness	Kurtosis	SFL
Cognitive motivation (α = 0.88) (CR/AVE = 0.90/0.69)					
Watching esports games helps me learn information about game strategies.	6.05	1.04	−1.60	3.87	0.87
Watching esports games helps me see what game tactics are out there.	5.92	1.12	−1.03	0.66	0.86
Watching esports games helps me get information on learning to play games.	5.71	1.21	−0.88	0.45	0.74
Watching esports games helps me understand information on game tricks.	6.02	0.99	−1.02	1.16	0.83
Affective motivation (α = 0.80) (CR/AVE = 0.83/0.63)					
Watching esports games is enjoyable.	6.26	0.89	−1.09	0.79	0.88
Watching esports games is entertaining.	6.32	0.82	−1.09	0.82	0.88
Watching esports games is a pleasant rest	5.85	1.11	−1.11	1.65	0.59
Personal integrative motivation (α = 0.86) (CR/AVE = 0.87/0.57)					
Watching esports games makes me feel that I am using my time well.	4.03	1.47	0.10	−0.24	0.78
Watching esports games makes me order my day.	3.65	1.42	0.07	−0.23	0.86
Watching esports games makes me strive for a higher standard of living.	4.04	1.46	−0.14	−0.43	0.79
Watching esports games makes me feel that I am influential.	3.75	1.76	0.16	−0.91	0.74
Watching esports games makes me feel that others think as I do.	4.35	1.52	−0.26	−0.45	0.57
Social integrative motivation (α = 0.75) (CR/AVE = 0.79/0.57)					
I do not feel alone when I watch esports games.	4.97	1.51	−0.56	−0.15	0.52
I watch esports games when there is no one else to talk or be with.	4.95	1.60	−0.69	−0.18	0.67
Watching esports games can make me feel less lonely.	4.48	1.71	−0.24	−0.75	0.99
Tension release motivation (α = 0.79) (CR/AVE = 0.75/0.50)					
I can forget about school, work, or other things when I watch esports games.	4.84	1.77	−0.81	−0.20	0.53

Table 3. *Cont.*

Items	M	SD	Skewness	Kurtosis	SFL
I can get away from the rest of my family or others when I watch esports games.	3.60	1.68	0.21	−0.85	0.80
I can get away from what I am doing when I watch esports games.	4.34	1.53	−0.37	−0.31	0.75
Consumption behaviour (α = 0.73) (CR/AVE = 0.75/0.50)					
Intentions of watching	5.22	1.32	−0.60	0.17	0.61
Purchase intentions	3.55	1.66	0.43	−0.54	0.62
Word-of-mouth intentions	4.67	1.56	−0.43	−0.41	0.84

SFL = Standardized factor loading.

4.2. Structural Model

Anderson and Gerbing [98] suggested that it is necessary to measure cross-validation to ensure that a model fits. Cross-validation was assessed between the two groups, that is, spectators of either League of Legends or Hearthstone. The results in Table 4 show that the measurement weights, structural weights and structural covariances were not statistically significant ($p < 0.05$) in either the independence or the competing models. This indicates that the independence and the competing models both had good cross-validation between the two spectator groups. The ΔCFI between the two models was within the recommended value of 0.001 [99], indicating no practical significance between the independence and competing models and showing that the two groups effectively understood the questions posed.

Table 4. Results of multi-group comparisons.

Independence model						
	χ^2	**df**	$\Delta\chi^2$	**Δdf**	*p*	**ΔCFI**
Unconstrained	889.94	348	-	-	-	-
Measurement weights	909.79	363	19.85	15	0.178	0.001
Structural weights	918.13	368	8.35	5	0.138	0.000
Structural covariances	932.81	383	14.68	15	0.475	0.000
Competing model						
	χ^2	**df**	$\Delta\chi^2$	**Δdf**	*p*	**ΔCFI**
Unconstrained	897.34	352	-	-	-	-
Measurement weights	917.14	367	19.80	15	0.180	0.001
Structural weights	926.74	374	9.60	7	0.212	0.000
Structural covariances	936.00	384	9.26	10	0.508	0.000

The Independence and the competing models were used to simultaneously test the relationships for the two spectator groups (see also Table 5). All paths in the models were simultaneously measured for the two groups. The model fit measures of the baseline models showed good fits for the independence model (χ^2 = 675.49, df = 174, χ^2/df = 3.882, CFI = 0.916, IFI = 0.916, RMSEA = 0.071) and for the competing model (χ^2 = 678.94, df = 176, χ^2/df = 3.858, CFI = 0.916, IFI = 0.916, RMSEA = 0.071), confirming that both the independence and the competing models were applicable to the two spectator groups. In the independence model, the results support H2 and H4 for spectators of League of Legends, whereas H1, H3 and H4 were supported by the results for spectators of Hearthstone. In the competing model, the results supported H2, H4, H6 and H7 for spectators of League of Legends, while they supported H1, H3, H4, H6 and H7 for spectators of Hearthstone. H1 to H5 showed similar results for the independence and competing models in both spectator groups. The results in Table 5 are summarized in Figures 3 and 4.

Table 5. Standardized path coefficients for the hypotheses tested.

Hypotheses	League of Legends Standard Loadings	H	Hearthstone Standard Loadings	H
Independence models				
H1. MC→CB	0.08	No	0.29 ***	Yes
H2. MA→CB	0.23 **	Yes	0.15	No
H3. MPI→CB	0.15	No	0.20 *	Yes
H4. MSI→CB	0.27 *	Yes	0.39 ***	Yes
H5. MTR→CB	0.09	No	0.14	No
Competing models				
H1. MC→CB	0.07	No	0.29 **	Yes
H2. MA→CB	0.23 **	Yes	0.14	No
H3. MPI→CB	0.15	No	0.20 *	Yes
H4. MSI→CB	0.27 *	Yes	0.39 ***	Yes
H5. MTR→CB	0.09	No	0.14	No
H6. MC→MA	0.49 ***	Yes	0.55 ***	Yes
H7. MSI→MA	0.27 ***	Yes	0.20 ***	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. MC = cognitive motivation, MA = affective motivation, MPI = personal integrative motivation, MSI = social integrative motivation, MTR = tension release motivation, CB = consumption behaviour.

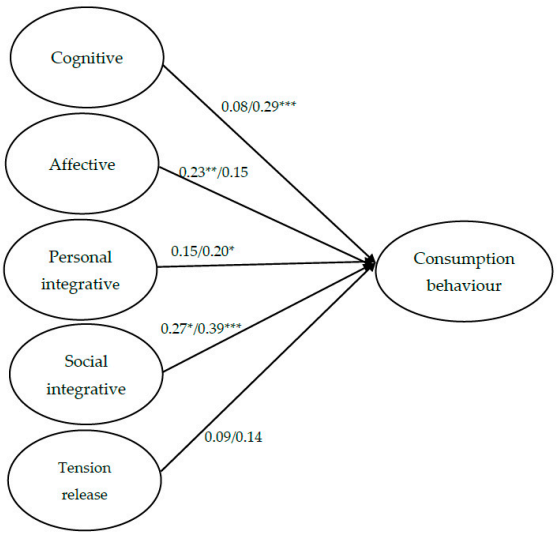

Figure 3. Results of the independence model (LOL/Hearthstone). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

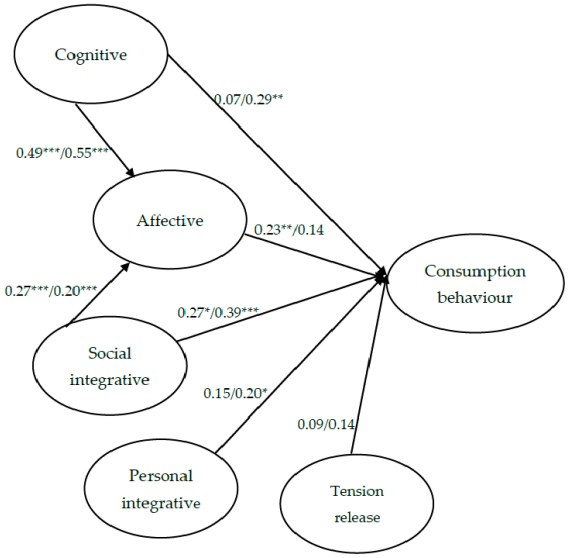

Figure 4. Results of the competing model (LOL/Hearthstone). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5. Discussion and Conclusions

The aims of this study were firstly to investigate the motivations of esports spectators driving them to consume. Secondly, the investigation compared the findings of the independence model and the competing model, and findings for two spectator groups. The results showed that there were different effects of motivations between the two spectator groups. The findings suggested that affective and social integrative motivations were significantly associated with consumption behaviour for spectators of League of Legends. On the other hand, cognitive, personal integrative and social integrative motivations were significantly associated with consumption behaviour for spectators of Hearthstone.

5.1. Discussion

Consistent with previous studies [11,13,22,26,52,72] and the UGT perspective [53], motivation is an important antecedent in driving esports consumption. However, in different types of esports games, it is probable that the relationship between motivation and consumption behaviour varies in significance. Cognitive and personal integrative motivations were only significantly and positively associated with consumption behaviour for spectators of Hearthstone. This finding is consistent with the perspective of previous studies [22,26], namely that spectators of Hearthstone watch esports games or engage with the dedicated community to gain information about the game played. This finding indicates that Hearthstone spectators consume esports to bolster their own status and satisfy personal integrative motivation [24]. Affective motivation was positively associated with consumption behaviour, but only for spectators of League of Legends. This is consistent with previous studies [24,26,45], namely that spectators can acquire satisfaction for affective motivation while watching League of Legends games. Social integrative motivation positively related to the consumption behaviour of spectators of both games. This finding is consistent with those of previous studies [14,45,61–64], which represented social integrative motivation as an important motivational factor in the UGT, as well as in the esports area. Social integrative motivation encourages spectators to consume esports so that they can eliminate loneliness by watching different types of esports games. This study shows that satisfactory social integrative needs encouraged behaviour intentions in specific spectating esports games. Meanwhile, a previous study [14] verified that satisfactory social integrative needs encouraged actual consumption behaviour (i.e., subscription) in spectating esports games. Thus, for managers of esports publishers targeting an improvement in subscription to a streamer, a socially interactive environment promoting deeper involvement should be offered. The tension release motivation had no significant positive relationship with consumption behaviour for spectators of either game, indicating that esports spectators were less motivated to release pressure or escape from their routine by watching esports games. This finding differs from those of previous studies [13,14,24,52]. The latter found that tension release was a crucial motivational factor in esports consumption (e.g., the numbers of hours users watched streams, the numbers of streamers watched and frequency of watching esports). One possible explanation for this difference might be that the current study targeted specific types of game genres on a popular forum, whereas previous studies investigated comprehensive game genres on a wider range of internet game streaming services (e.g., Reddit, Facebook, Twitter, etc.). It also differs from the viewpoint of the Catharsis Theory [67], which suggests that recreational activity, such as esports spectating, can be an outlet to release tension. This mixed result merits further empirical studies for other viewing experiences of esports game genres.

The assessment of the competing model for both groups of game spectators suggested that cognitive motivation has a strong relationship with affective motivation. Although both the independence model and competing model generated good fits (see Table 5), the competing model showed that the relationship between cognitive and affective motivations was stronger than other influences. This finding is consistent with those of earlier studies on cognitive–affective relationships [75,77]. However, the cognitive–affective relationship only resulted in consumption behaviour for LoL spectators. Affective motivation strongly

affected the relationship between cognitive motivation and consumption behaviour, further supporting Bagozz's [25] appraisal–emotional reaction–behaviour framework. This highlights the enjoyable, entertaining and pleasant feelings that LoL brings about during the game-learning process. Social integrative motivation was also related strongly to affective motivation in both games and was again consistent with previous studies [7,14,45]. This supports the view that control-orientated motivation can facilitate autonomy-oriented motivation when spectators' behaviour is self-determined [85]. However, affective motivation only partially mediated the relationship between social integrative motivation and consumption behaviour for LoL spectators. This indicates that spectators experiencing enjoyable, entertaining and pleasant feelings consume esports when, in addition to the quest for knowledge, their social interaction needs are fulfilled. Although affective motivation had a strong relationship with cognitive and social integrative motivations among spectators of Hearthstone, its impact on consumption behaviour was not significant. This indicates that Hearthstone spectators, when experiencing the much slower-paced spectating process, are more likely to be directly rather than indirectly motivated to consume esports. These findings are new to esports research.

Sports management scholars might consider combining the UGT with the human motivation theory to advance understanding by investigating whether interrelatedness between intrinsic and extrinsic motivations for esports consumption exists among spectators of game genres related to traditional professional sports leagues. However, sports practitioners may find that increasingly flexible strategies to encourage consumption behaviour are viable for specific game genres.

The demographic background of the samples with mostly male respondents below 25 years of age for esports consumers is consistent with comprehensive investigations into esports [13]. The esports industry is undoubtedly a very male-dominated field [7,95,96,100] of mainly young people [17,97,100]. This indicates the gender and age distributions both for general esports and specific game genre fan communities. However, as some researchers questioned whether adolescent males are the major consumers of esports [12,101] in order to fully understand market segments, future studies should further examine the demographics of fan-bases among popular esports games such as Defense of the Ancients and Counter-Strike: Global Offensive.

Overall, the results indicated that different game genre types can provide both the same (i.e., social integrative motivation) and different gratifications. This suggests that esports spectators' consumption behaviour can be simultaneously extrinsically and intrinsically motivated within faster-paced and slower-paced game genre types. This finding may highlight a need for divergent promotion strategies to penetrate different markets. A combination of models revealed that affective motivation played vital roles as an antecedent and a mediator of esports consumption behaviour in faster-paced game genres. Furthermore, esports consumption behaviour across different types of spectators can be encouraged by their social integrative motivation.

5.2. Practical Implications

Few previous studies have compared the motivations of different target games in esports. The models applied in this study, which were examined for the spectator groups of two esports games, can be further applied to examine the motivations of future esports spectators. Understanding spectators' motivations can help the esports industry develop effective marketing strategies. In this context, future researchers, along with the managers of esports industries, should pay more attention to affective motivation, because this is an important antecedent of esports consumption.

This study also revealed the crucial motivations of League of Legends and Hearthstone spectators. The industries of both esports games can use the results to predict why people consume esports. Affective motivation especially showed a strong influence on League of Legends consumption. This suggests that the managers of League of Legends need to provide more affective and extraordinary experiences for spectators. This might

include, for example, experiential marketing [102]. Cognitive motivation was important for spectators of Hearthstone, which suggests that there may be benefits from providing clearer and more detailed spectator interfaces and comments during matches. In addition, the strong effects of social integrative motivation in both games demonstrate that managers of esports can improve performance by building and managing a spectator community by understanding their specific needs. Combining this with the findings of previous work [14], social factors are not only key determinants motivating esports spectators' intentions of watching, purchasing and WOM, but, importantly, they are the strongest determinant of following streamers and subscribing among different game genres. This highlights the need for both game and streaming service developers to offer integrated packages of instant interactive and social spectating environments. With esports spectating culture being highly social and interactive [24] and esports experiences not solely being produced by game designers [9], value co-creation should be emphasized. For example, to enhance a higher level of social interaction, user-generated game content is useful for developers. The hosting of public screening events can further extend a co-creation spectator experience from a virtual to a real-time context.

While other motivations showed positive associations with esports consumption, tension release was missing. Although escapism represents the central feature of esports, such as in digital play through nostalgia, daydreams and media-derived fantasies [9], it also relates to consumption by esports spectators [14]. Although collectable card games (CCG) and multi-player online battle arenas (MOBAs) can afford tension release motivations [24], they were not supported in this study. Nevertheless, with mixed results, it would be advisable for game developers and streamers to think about this as a central feature of esports, not only for players, but also wider spectators.

In the future, as new esports games are being developed and published, improved understanding of spectator motivations can help the industry to implement more effective marketing strategies. These may relate to attending games, purchasing merchandise and attracting fans' engagement in online communities.

5.3. Limitations and Future Research Directions

There are some limitations of this study. First, the results of this study were for two specific games, (1) League of Legends and (2) Hearthstone: Heroes of Warcraft. The sample for this study was selected in a purposive way, and the data were collected from the online community. Therefore, other potential spectators of esports who do not engage in the online community may have been excluded. Future studies should consider targeting spectators in different areas to ensure that the sample is sufficiently representative. The sample population of Hearthstone was relatively small. Future studies should recruit a larger sample to ensure representativeness. In addition, research might be extended to various other esports games, particularly those developed from traditional professional sports leagues (e.g., MADDEN NHL 18, NBA LIVE 18, NHL 18 and PGA TOUR), and to topics such as augmented and virtual reality. This research provides initial models for investigating the motivations of other esports game spectators to understand their motivations, but does not claim to cover the full range of potential motivations relevant to esports spectators. Future work may consider qualitative studies to probe the motivations of the population of interest more fully. As unidimensional analysis of consumption behaviour may have missed nuances in the interplay between the spectators' motivations and different dimensions, studies could apply multiple-dimensional constructs to better understand esports consumption. Additional potential variables influencing consumption behaviour include team identification [103], esports game involvement and team loyalty, and these also merit further investigation.

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