Technology in Esports

Subjects: Social Issues

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The esports industry is growing rapidly and has captured gamers' attention. Technology is essential in esports because all esports games are video games. Prior experience has been considered a significant moderator in research on technology use .

esports gameplay live-streaming

1. Technology and Prior Experience in Esports

Technology is essential in esports because all esports games are video games. Prior experience has been considered a significant moderator in research on technology use [1][2]. Therefore, prior experience in engaging in esports gameplay may also serve as a criterion for heterogeneous esports consumer clusters.

Consumers must use electronic devices to play and watch esports games. Further, advanced technologies affect diverse aspects of the esports industry and research. For example, monitoring and securing financial transactions have been essential in the growth of esports, and industry practitioners have found solutions in new technologies [3]. For example, to attract potential investors and create a stable market, the security of prize distribution and funds withdrawal must be protected from potential fraud or hacking. Blockchain technology makes transactions more secure by blocking any hacking without the entire data chain. Other technologies, such as cryptocurrencies or smart contracts, also reduce the probability of fraud or hacking [3]. For example, Rothman [4] focused on intellectual property (IP) policies in new technologies in the context of esports. The rapid growth of esports and video gaming has increased the pace of changes in the context of computer technology and Internet applications. Dedicated esports betting websites have grown based upon this advanced technology [5]. As such, gaming equipment firms, media firms, esports event organizers, professional esports gamers, and streamers make a profit because of esports games' popularity. However, without proper technology, it would be impossible to reduce fraud attributable to hacking. Hence, diverse technologies to do so are vital and are used widely in the esports industry.

With respect to the use of technology, prior experience has been adopted as a moderator. For example, Sun et al. [1] adopted perceived behavior control and subjective norm based upon prior experience with the UTAUT model to predict IT use in China and found a significant effect of the factors related to prior experience. Workman [2] examined the moderating effect of previous experience with new technology in social media and smart applications with the UTAUT model. The author found a significantly different effect depending upon previous experience as a moderator of the intention to use social media and smart applications and indicated that a technology use model with a single dependent variable could be hazardous.

Prior experience in the context of gaming and esports is the experience of gameplay. Some esports consumers may have considerable experience playing esports games, while others may have little experience. According to Jull [6], hardcore gamers are individuals who spend considerable time and money on gaming. Because these gamers are very enthusiastic about improving their in-game performance, they spend a tremendous amount of time to achieve that goal. Manero et al. [7] indicated that one of hardcore gamers' primary characteristics is that their gameplay time is likely to be higher than that of general gamers. On the other hand, casual gamers can be defined as individuals who spend less than the average time in gameplay and do not invest much effort to increase their gaming skills or win. Instead, they are likely to play games simply to enjoy the pastime with friends and are less competitive [6]. Based upon previous literature, this study defined prior experience as high/low frequency of esports gameplay (i.e., hardcore and casual gamers).

2. Prior Experience in Esports Gameplay

Given that esports consumers are gamers [8], and esports gameplay consumption may lead to other types of consumption [9], the technology acceptance approach to esports consumers' gameplay behaviors needs to focus on esports consumption. Thus, individuals who have no experience with esports gameplay may watch and follow esports-related broadcasts rarely [9].

Specifically, technology is inevitable in the context of esports, particularly in esports gameplay, which uses gaming hardware [9]. Not only technology is used to engage in esports gameplay, but it is also used to watch live esports streaming content and events broadcasts [10] through such devices as mobile phones and personal computers. Esports are electronic games that use technology in the connection between users' interactions, such as gaming hardware and visual feedback (e.g., computer monitor or television) [9]. Broadly, gaming consoles (e.g., Xbox, PlayStation), personal computers, and mobile phones are considered gaming hardware and mobile esports leagues have grown as mobile technology's performance has increased [11]. In video game research, virtual reality or motion-based gaming technologies have attracted the attention of scholars in technology and gaming [12]. Jang and Byon [9] focused on the technology acceptance elements to explore esports consumers' gameplay intention and the relationship between esports gameplay and watching esports media as suggested by the ESC model. According to previous research, prior experience is considered a significant moderator in research on technology use [1][2]. Thus, prior experience in the esports context may also lead to differences across the two groups based upon high/low frequency of esports gameplay.

Hypothesis 1:

There are different patterns between the two groups in the relationship between esports gameplay intention and its determinants based upon prior experience defined as the frequency of esports gameplay.

3. Prior Experience with Live Esports Streaming Content

With respect to esports media consumption, streaming platforms such as Twitch have been considered by the hub of esports media consumption because of the advances in technologies [10]. Streaming technology plays video files without downloading them. With the advances in streaming technology, top media services, such as Netflix and Hulu, offer streaming services directly to viewers via the Internet. In addition, the popularity of live-streaming gaming services, such as Twitch, have been eclipsed by popular gaming streamers, such as Ninja, that are considered among the new influencers in the context of esports [13]. Jang et al. [10] distinguished live esports streaming content from esports events' broadcasts and indicated that the two-way communication based upon massive live chat technology between streamers and viewers is one of the key differences between streamers' live-streaming and esports event broadcasting. Thus, such technologies as personal broadcasting equipment for individual Internet streaming and live chatting technology may have supported the rapid growth in esports media consumption. The authors also supported the relationship between esports gameplay intention and live esports streaming content consumption. Qian, Wang et al. [14] developed the Motivation Scale of Esports Spectatorship, which included esports gaming skill improvement, game knowledge, and skill appreciation. Their findings indicated that improving esports gameplay skills and knowledge may motivate esports spectatorship. Thus, prior experience in gameplay may produce differences in esports content live streaming. For example, if consumers are novices and have little prior experience playing esports games, they need to watch esports content live streaming more to improve their skills. In contrast, consumers who play esports often and are highly skilled already may be less motivated to watch live esports streaming content. On the other hand, consumers with significant prior experience may want to watch more live esports streaming content because they can enjoy it better based upon their ample background knowledge about the esports game. However, given that prior experience with technology makes a difference in its use [1][2], high/low frequency of prior experience playing esports games may also make a difference in live esports streaming content's use.

Hypothesis 2:

In the relation between esports gameplay intention and live esports streaming content, there are different patterns across the two groups based upon the frequency of prior experience in esports gameplay.

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