

ORIGINAL ARTICLE



# Causal Factors Related to Management of eSport Clubs in Thailand

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## ABSTRACT

**Background.** Currently, the Public and private sectors are working to accelerate eSports into the path of creating income for athletes and young people. The Ministry of Health has disclosed that the number of games increased more than doubled back. eSports is widespread in Thailand. Although eSports are more popular among Thai teenagers, they face financial problems in management. The paper is more innovative than other research because there is so much eSport research in Thailand, but none is used to study this issue. **Objectives:** To investigate the selected factors related to the management of eSports clubs in Thailand and investigate the causal factors related to the management of eSports clubs in Thailand. **Methods.** This study utilized documentary and quantitative research, divided into two steps: studying theory and related research. Second, investing the causal factor related to the management of esports clubs in Thailand from the 401 correspondences by the simple random sampling from 7,580 stakeholders who registered with Thailand eSports federation was self-administered in the questionnaire. These data were analyzed by the descriptive statistics and path analysis research methodology. **Results.** The result found that the 16 selected factors related to the management of eSports clubs in Thailand all factors had a correlation coefficient from 0.000 to 0.980, and the causal factors related to the management of eSports clubs in Thailand significantly at .05 level have eight variables, as follows: Government agencies (-0.656), Society and Culture (0.481), eSports competition (0.458), Infrastructure (0.356) Variety of game types (0.219) Private sector (0.213) Technology (0.158) Caster or Streamer (0.095). **Conclusion.** It can be concluded that creating added value to the economy by driving Thailand's e-sports industry, whereby the government and private sectors will work together to systematically drive the creation of e-sports management, which aims to make Thailand the center of competition in Southeast Asia.

**KEYWORDS:** *eSport, Causal Factors, Management, eSport Club, Sports Industry.*

## INTRODUCTION

The eSports industry has become very popular nowadays. The participants in eSport industry started from the grass-root level to a multi-billion dollar industry with professional leagues, franchises, teams, and players (1, 2). Most of the white papers on eSport industry provided a broad framework on the general topics, such as on the field of media management in order to create the sustainable business models in the digitized society, which reported by stating the potential of

researching eSports as a case for the path to digitize media management and, additionally, create sustainable business models in the digitized society (3). The structuring of the eSport matrix presented the four distinct realms that distinguish esports; esports as a representation of current physical sports (sports digitalization), esports as traditional (multi-player) game experience (competitive multi-player computer games), esports that modify existing sports, player rules, and setups through digital

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augmentations (digitally enhanced sports), and new types of esports involving emerging technologies such as virtual and augmented reality (immersive reality sports) (4), the structure of performance and training in eSport which found that Overall, 1,835 esports players voluntarily participated in the study. Age ranged from 13 to 47 years ( $M = 20.9$ ;  $SD = 4.5$ ), and males clearly dominated (95%). Furthermore, the mean weekly playing time was 20.03 hours ( $SD = 15.8$ ). Training occupied 38.85% (7.75 h) of the playing time on average. On the one hand, the results reveal game-specific competence and training structures in the five esports selected for the study (Starcraft II, League of Legends, Rocket League, FIFA, and Counter-Strike). On the other hand, the factor structure of competencies closely resembles the esports performance model. (5), the public health prospective on eSport concluded that the public health sector should follow the development of eSports and explore the behavior and health issues of athletes and spectators as eSports develop. Supportive programs for eSports players and spectators should be designed and implemented, health guidelines or recommendations should be written and promoted, and public awareness of the health consequences of eSports should be expanded (6), identity transformation, stigma power, and mental wellbeing of Chinese eSports professional players, and found that find eSports is perceived as non-secure, casual, and irregular by the Chinese public and that the mental changes experienced by eSports professionals throughout their careers have been significantly influenced by a more sophisticated form of state power and social norms, including cultural cognitive beliefs, economic stimulation, and authority attributions (7), identifying the pros, cons and tactics of eSports, the review showed the pro and cons of sponsoring eSport (8), eSport integrity policies which showed that any policies seeking to address esports integrity must be designed to adapt to a constantly shifting electronic playing field or risk a quick obsolescence (9). The direction of promoting eSport in Thailand, and the result found that Allocating & funding the budget from the public and private sections and coordinating among both sections with the times' frame will be the best way to promote the Esport industry in Thailand (10), and so on. However, it could hardly be found in the context of Thailand. The pain point of the management eSport club was the negative perception of gaming within Thai society which cause the big barrier of the Esport

career path in Thailand (10) which caused the trouble in management the eSport club. The current study attempts to fill this gap in the literature by focusing on the concept of eSport with the management process (11) for the benefit of creating the process of the management of the eSports in Thailand. This study may provide new information on the management of eSport clubs in Thailand and give recommendations on aspects of using the casual factor related to the management of eSports clubs in Thailand, which require future improvements. This study aimed to investigate the selected factors related to the management of eSports clubs in Thailand and the causal factors related to the management of eSports clubs in Thailand.

## MATERIALS AND METHODS

This study utilized the quantitative study to investigate the data on the opinions of causal factors related to the management of eSports clubs in Thailand and to investigate the correlation coefficients, the direct, the indirect, and the total effect of the causal factors related to the management of eSports clubs in Thailand. Participants. The 400 correspondences were by using simple random sampling from 7,580 stakeholders who registered with Thailand eSports federation.

**Instrument.** The questionnaire was used to investigate the data on the opinions of causal factors related to the management of eSports clubs in Thailand and investigate the correlation coefficients, the direct, the indirect, and the total effect of the causal factors related to the management of eSports clubs in Thailand. Each question has been answered with a 5- point scale using the Likert scale. The final survey comprised 60 items. The content validity of this survey was determined through Item-Objective Congruence (IOC). Furthermore, the reliability of the expectation was .952, and the satisfaction was .964. (Cronbach's Alpha Coefficient).

**Analysis.** The quantitative data were analyzed through descriptive statistics, including frequency, mean, standard deviation, correlation, and path analysis through SPSS for Windows computer program. Non-probability sampling by Quota methods was used for defining the sample size, which was 400 samples per region, as shown in Table 1.

## RESULTS

**Quantitative Finding.** 1. The result of analyzing data on the opinions of causal factors related to the management of eSports clubs in Thailand.

Table 1. The demographic characteristics

Region	Northern	Southern	North eastern	Central
Population	1895	1137	1289	3259
Samples	100	60	68	172

Table 2. The opinions on the factors for stakeholders in eSports in Thailand registered with Thailand eSports federation are as follow

Factors	$\bar{X}$	SD	Min	Max	CV
1. Government agencies	4.327	.298	3.33	5	.089
2. Private sector	4.75	.270	4.00	5	.073
3. Infrastructure	4.36	.410	2.67	5	.168
4. eSports athlete	4.328	.305	3.00	5	.093
5. Sponsorship	4.337	.342	3.00	5	.117
6. Caster or Streamer	4.46	.404	1.33	5	.163
7. Variety of game types	4.49	.417	2.0	5	.174
8. Social media	4.330	.300	3.33	5	.090
9. Thailand eSports federation	4.43	.467	2.0	5	.218
10. eSports clubs	4.44	.468	1.67	5	.219
11. eSports competition	4.327	.336	3.5	5	.113
12. Economy	4.71	.362	3.00	5	.131
13. Society and Culture	4.321	.304	3.33	5	.092
14. Politics and Law	4.41	.377	3.33	5	.142
15. Technology	4.38	.332	3.00	5	.110
16. Management	4.15	.215	2.20	4.73	.046

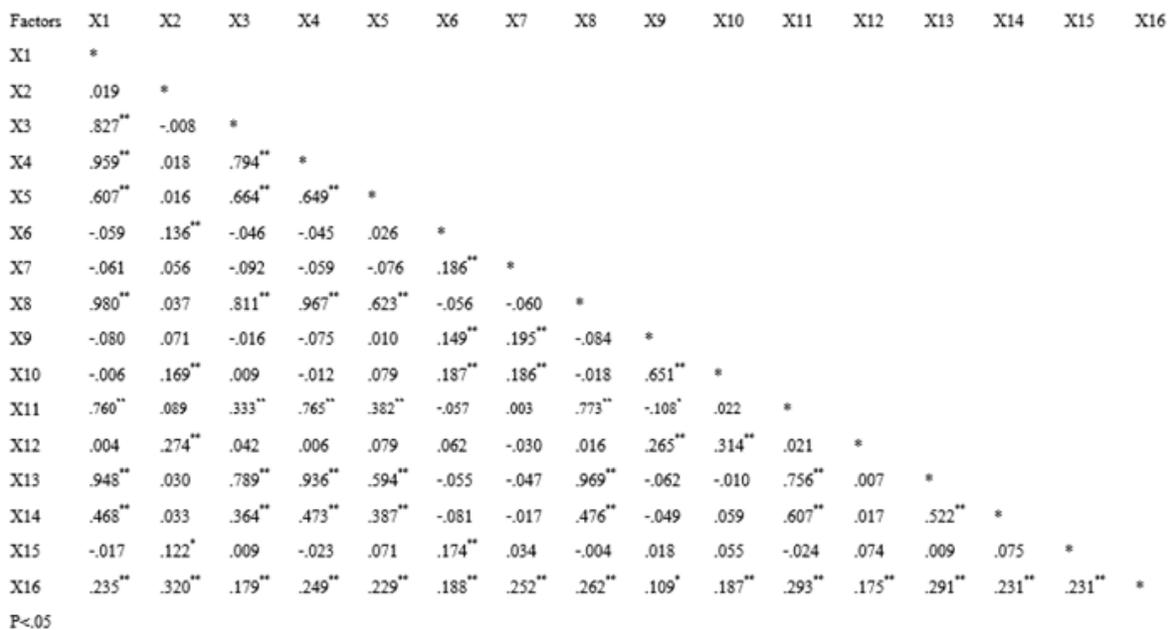


Figure 1. Correlation Coefficient  $r_{xy}$  between factors

Table 2 shows the opinions on the factors for stakeholders in eSports in Thailand registered with Thailand eSports federation found that factors related to the management of eSports clubs in Thailand. The average was at a high level. Considering by item, the highest average level score were Private sector ( $\bar{X}$  =4.75) Economy ( $\bar{X}$ =4.71) Variety of game types ( $\bar{X}$  =4.49) Caster

or Streamer ( $\bar{X}$  =4.46) eSports clubs ( $\bar{X}$  =4.44) Thailand eSports federation ( $\bar{X}$  =4.43) Politics and Law ( $\bar{X}$  =4.41) Technology ( $\bar{x}$  =4.38) Infrastructure ( $\bar{X}$  =4.36) Sponsorship ( $\bar{X}$  =4.337) Social media ( $\bar{X}$  =4.330) eSports athlete ( $\bar{X}$  =4.328) Government agencies ( $\bar{X}$  =4.327) eSports competition ( $\bar{X}$  =4.327) Society and Culture ( $\bar{X}$  =4.321) Management ( $\bar{X}$  =4.15).

Considering the coefficient of variance found that two variables with a high dispersion of more than 20 percent. eSports clubs and the Thailand eSports federation had a coefficient of variance of 21.9 and 21.8, respectively. The result of the direct, indirect, total effect, and correlation coefficients.

Variables Symbol (X1) Government agencies, (X2) Private sector, (X3) Infrastructure, (X4) eSports athlete, (X5) Sponsorship, (X6) Caster or Streamer, (X7) Variety of game types, (X8) Social media, (X9) Thailand eSports federation, (X10) eSports clubs, (X11)eSports competition, (X12) Economy, (X13) Society and Culture,

(X14) Politics and Law, (X15) Technology (X16) Management.

Figure 1 showed that all factors had a correlation coefficient from 0.000 to 0.980, which was consisted of 1) Government agencies with Infrastructure (0.827), 2) Government agencies with eSports athletes (0.959), 3) Government agencies with Social media (0.980), 4) Government agencies with Society and Culture (0.948), 5) Infrastructure with Social media (.811) 6) eSports athlete with Social media (0.967), 7) eSports athlete with Society and Culture (0.936) and 8) Social media with Society and Culture (0.969)

Table 3. The effect of all predictor variables on management

Predictor Variable	Direct effect	Indirect effect	Total effect	$r_{xy}$
1. Government agencies	-0.656*	0.162	-0.494	0.235*
2. Private sector	0.213*	0.024	0.237	0.320*
3. Infrastructure	0.356*	-1.026	-0.670	0.179*
4.eSports athlete	-0.073	-0.076	-0.149	0.249*
5. Sponsorship	0.072	0.403	0.475	0.229*
6. Caster or Streamer	0.095*	0.055	0.150	0.188*
7. Variety of game types	0.219*	-0.020	0.199	0.252*
8. Social media	-0.167	-0.066	-0.233	0.262*
9. Thailand eSports federation	0.000	0.003	0.003	0.109*
10.eSports clubs	0.035	0.117	0.152	0.187*
11.eSports competition	0.458*	-0.986	-0.528	0.293*
12. Economy	0.086	0.032	0.118	0.175*
13. Society and Culture	0.481*	-0.198	0.283	0.291*
14. Politics and Law	0.000	1.828	1.828	0.231*
15. Technology	0.158*	-0.073	0.085	0.231*

\*p <0.05

Considering the statistically significant correlation at a 0.05 level as follows:

1) Government agencies related to Infrastructure, eSports athletes, Sponsorship, Social media, eSports competition, Society and Culture, Politics and Law, and Management. 2) The private sector is related to Caster or Streamer, eSports clubs, Economy, and Management. 3) Infrastructure related to Government agencies, eSports athletes, Sponsorship, Social media, eSports competition, Society and Culture, Politics and Law, and Management. 4) eSports athletes related to Government agencies, Infrastructure, Sponsorship, Social media, eSports competition, Society and Culture, Politics and Law, and Management. 5) Sponsorship related to Government agencies, Infrastructure, eSports athletes, Social media, eSports competition, Society and Culture, Politics and Law, and Management. 6) Caster or Streamer related to Private sector, variety of game types, Thailand eSports federation, Technology, and

Management. 7) Variety of game types related to Caster or Streamer, Thailand eSports federation eSports clubs, and Management. 8) Social media related to Government agencies, Infrastructure, eSports athletes, Sponsorship, eSports competition, Society and Culture, Politics and Law, and Management. 9) Thailand eSports federation related with Caster or Streamer, Variety of game types, eSports clubs, and Technology. 10) eSports clubs related to the Private sector, Caster or Streamer, Variety of game types, Thailand eSports federation, Economy, and Management. 11) eSports competition related to Government agencies, Infrastructure, eSports athlete Sponsorship, Society and Culture, Social media, Politics and Law, and Management. 12) Economy related to the Private sector, Thailand eSports federation, eSports clubs, and management. 13) Society and Culture related to Government agencies, Infrastructure, eSports athletes, Sponsorship, Social media, eSports competition, and

Management. 14) Politics and Law related to Government agencies, Infrastructure, Management, eSports clubs, eSports athletes, Sponsorship, Social media, eSports competition, Society, and Culture. 15) Technology related to the Private sector, Caster or Streamer, and management. 16) Management related to Government agencies, Private sector, Infrastructure, eSports athlete, Sponsorship, Caster or Streamer, Variety of game types, Social media, eSports clubs, eSports competition, Economy, Society and Culture, Politics and Law, and Technology.

Table 3 showed that the final model (Modification causal model) was directly related causally related to the management of eSports clubs in Thailand significantly at .05 level has eight variables, as follows: 1) Government agencies (-.656) were the variables that the most direct effect on the management of eSports clubs in Thailand. The government agencies affect the management of eSports clubs in Thailand. Government agencies were direct cause form Social media. The government agencies are affected indirectly cause form Infrastructure, eSports athletes, Sponsorship, eSports competition, and Politics and Law. 2) Society and Culture (.481) were the variables that directly affected the management of eSports clubs in Thailand. Society and culture affect the management of eSports clubs in Thailand. Society and culture were direct cause form Social media. Society and culture are affected indirectly cause form Sponsorship, Thailand's eSports federation, eSports competition, and Politics and Law. 3) eSports competition (.458) directly affected the management of eSports clubs in Thailand. eSports competition affects the management of eSports clubs in Thailand. eSports competition was a direct cause of Infrastructure. eSports competition is affected indirectly cause form Government agencies, the Private sector, eSports athletes, Social media, eSports clubs, Society and Culture, Politics and Law, and Technology. 4) Infrastructure (0.356) directly affected the management of eSports clubs in Thailand. Infrastructure affects the management of eSports clubs in Thailand. Infrastructure was a direct cause of the eSports competition. Infrastructure affected indirect cause from Government agencies, eSports athletes, Sponsorship, Social media, Politics and Law, and Technology. 5) Variety of game types (0.219)

directly affected the management of eSports clubs in Thailand. A variety of game types affect the management of eSports clubs in Thailand. A variety of game types were direct cause by form Thailand eSports federation. Various game types affected indirect causes from Caster or Streamer and the economy. 6) Private sector (0.213) was the variable's direct effect on the management of eSports clubs in Thailand. The private sector affects the management of eSports clubs in Thailand. The private sector was the direct cause form Economy. The private sector was affected indirectly cause form eSports competition. 7) Technology (.158) directly affected the management of eSports clubs in Thailand. Technology affects the management of eSports clubs in Thailand. Technology was a direct cause of Caster or Streamer. Technology affected indirect causes from the eSports competition and Politics and Law. 8) Caster or Streamer (.095) were the variables' direct effect on the management of eSports clubs in Thailand. Caster or Streamer affect the management of eSports clubs in Thailand. Caster or Streamer was direct cause by form Variety of game types. Caster or Streamer affected indirect cause from technology.

## DISCUSSION

The research titled "Causal Factors Related to Management of E-sport clubs in Thailand" is quantitative. The samples in the quantitative method were 401 people. SPSS (Statistical Package for the Social Sciences) was used to figure out the descriptive statistics (The percentage, the average, the standard deviation, and the Coefficient of Variance). Path analysis applies to obtaining data and conducting direct, indirect, and total effects. The researcher analyzes the result discussion with the details as follows:

Firstly, the discussion of the result of analyzing data on the opinions of causal factors related to the management of eSports clubs in Thailand related to the work of Phakhawat Charoenlarp in the title of value and economic value of eSport, and found that the prize pool of many tournaments is increasing every year so that it can upgrade the standard of eSports industry (12). Also was relevant to the work of Newzoo in the title of the Global Esports Market Report, and it said that the economy of eSports is growing more and more every year by receiving support for various products through advertising (13).

Secondly, the discussion of the result of using the path analysis research methodology for causal

factors related to the management of eSports clubs in Thailand related to the interview of Chutinat Wongsuban, who was the secretary-general of the national economic and social development council (NESDC) referred in the Bangkok Post, which said that Thailand does not yet have a law on e-sports. There is only a ministerial regulation on the permission and operation of video stores under the Film and Video Act 2008. Moreover, the law controls game cafes by defining the playtime duration children spend in the cafes. Moreover, there did no age ratings for gaming content (13). The second related was the work from the National health commission office in the title of The impact of eSport on children health and the creation of the responsibility model of relevant departments in terms of positive social impact, and it concluded that all parties should be aware of all aspects of eSports including the potential negative impact on children, social media (14-17). Other related works were also said that Thailand is very popular at all levels ranging from organizing competitions within schools, universities, and workplaces, to organizing national competitions for agents or clubs representing Thailand to compete internationally. They all recommended that both government and private agencies support and create a club to participate in eSports competitions.

Some research focused on building the standard facility was one of the critical success, and providing the game variety was also very important (18-28). Some research works insisted on the importance of the private sector by pointing to the issue of receiving support for various products through advertising. In 2017 most of these revenues came from sponsorships, totaling \$113 million, and many prominent companies, such as Microsoft, Samsung, and Red bull, helped global eSport industry revenues over \$696 million. Moreover, eSports activities were frequently dependent on sponsorship and the event game in which the company was the advertising. For example, Samsung became a primary sponsor of the eSports competition WCG in South Korea, but Microsoft has connected culture in the United States, Asia, and Europe by becoming a sponsor (29-33). It can be said that the development of the game by a group of Thai entrepreneurs was more numerous than in the past, including investment from the private sector that had driven the industry for continued

expansion. In addition, another factor is expected to contribute to the expansion of the domestic gaming industry to promote the popularity of electronic sports (eSports) that competition between players both inside and outside the country. According to that, this was an important part that helped to build and connect the game industry with other business sectors. One of the exciting examples was the education sector, which attracted public and private interest in setting up educational programs to build career personnel related to the game industry, such as managers, directors, game developers, etc. The number was approximately 2,000 people from all 11 courses nationwide. This included cooperation between the public and private sectors to push the gaming industry, which is part of the digital economy, to become internationally ready (34).

On the other hand, technology issues also related to emerging technologies, such as virtual and augmented reality, mediated sports consumption, and sophisticated wearable technology, fundamentally change sports consumer experiences and push the boundaries of sports management research (35). Numerous technological innovations, such as artificial turf and field surfaces (36), novel fabrics and textiles (37), the rise of mobile commerce and smartphones (38), and virtual reality (39), have driven significant changes in the sports industry and influenced the way sports organizations were managed (40). Sports organizations were forced to continually evolve to remain current with technology innovations (37), yet the sports managers frequently struggle to adopt new technologies (36). Besides, innovative technologies continued expanding the scope of the sports industry, and a deeper understanding of their influence is required to manage sports organizations effectively (40). Thus, there is a need for additional research that captures the intersection of organizational and consumer perspectives to examine sports technology innovation and expand current understanding through integrated perspectives (41). According to that, sports organizations increasingly face challenges and opportunities related to managing technology (40) with emerging trends of embedding sport-like design elements to make the activity more appealing (e.g., incorporating performance metrics in fitness clubs).

Technology was a direct cause of caster or Streamer. The eSports economy is different from the

traditional sports economy. The traditional sports economy has four main categories: gate revenue, merchandising, sponsorships, and media. eSports companies follow traditional sports, but eSports have differed in media, gate revenue, and merchandising. eSports are broadcast on live-streaming platforms between traditional sports broadcasts and traditional television (42). Caster or Streamer had a total effect of 0.150, consisting of 0.095 and an indirect effect of 0.055. Live streaming has shown a remarkable increase in popularity on YouTube, Twitch, and Facebook. It is new gaming culture. YouTube, Twitch, and Facebook are live-streaming platforms to allow everyone to start their channels and begin live-streaming while playing (43-50). The caster has a significant influence on eSports. The caster was able to create content or style while playing the game. It generates a large number of followers to generate revenue from the sponsorship. Vale company was a good example, and they have created new gaming content that players can create their items. They can sell them to other players; items created must pass through the community to test whether someone will buy them (51-53).

Caster or Streamer was the direct cause of a variety of game types. A leader of the telecommunication company in Thailand interested in supporting all aspects of digital issues and future trends. With the launch of the “Thailand PVP E-Sports Championship Powered by AIS” program to support the E-Sport competition and push Thai gamers to the world-class competition, the format will be an ROV and DOTA 2 competition for Win total prize money of 1.6 million baht (DOTA2 600,000 baht, ROV 1,000,000 baht), then enter the regional competition “PVP E-Sports Championship” in Singapore. (And, of course, the Thai team won the ROV game, including the ALPHA X team from Thailand won a prize of 40,000 US dollars to complete) the format of the competition comes from the collaboration between AIS and Singtel Group, Singapore. Moreover, Operators in 6 other countries also have world-class gaming partners such as Garena, Razer, Bliizzard, and Mineski Event Team. AIS has brought about the internet signal, which is a strength. The players can connect with E-Sport with the issue of SIM phones that allow you to play ROV games without internet charges and give away free

items. In addition, there is also a video game match with Thai Game Casters that can be viewed back through the AIS Play app and the AIS PLAYBOX. The value and economics value of eSport has collected and classified the game into seven categories according to the type of game software as follows action game, adventure, action-adventure, role-playing, simulation, strategy, and sports.

## CONCLUSION

The research result can be answered the two objectives, which were as follows; To investigate the selected factors related to the management of eSports clubs in Thailand and to investigate the causal factors related to the management of eSports clubs in Thailand findings found that the 16 selected factors and eight variables will be creating jobs, creating careers for athletes and businesses involved in the e-sports industry in Thailand to generate a revolving income. This is considered an essential factor that helps drive the national economy to grow up steadily because its ecosystem is enormous, and the eSports ecosystem is similar to traditional sports in some aspects, such as the spectatorship, the teams, the media rights, the advertisers, and the sponsors and organizers of the event. The publishers own the game licenses, while Twitch and YouTube are preferred media channels. Moreover, more effective than the traditional in term of this industry, need to get involved with the latest technology which can generate much income for those countries which is capable of producing such things, or perceiving how to manage their organization in order to support or get along with the rapidly changing industry.

## APPLICABLE REMARKS

- There should be education, social awareness, and information on being a legitimate and socially acceptable eSports athlete.
- Professional eSports clubs should have a sustainable management model and their club management structure for the future.
- Government agencies should be able to understand people by providing information about eSports. In addition, there should be the promotion of activities related to eSports in Thailand.

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