STUDY OF INFLUENCE FACTORS ESPORTS DEVELOPMENT IN INDONESIA

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ABSTRACT

This paper aims to explain the variables that affect the development of esports in Indonesia as part of the 2020 research results in 6 (six) provincial capitals. The research was conducted in Senior High Schools (SMA) by taking 3 (three) schools in each of the sample provincial capitals. The object of research is students who are obtained from those who know and like online games. Each school was taken 30 students as a sample, so that the total sample is 540 students. Data collection was carried out by distributing questionnaires to sample students. The questionnaire has been tested to determine the validity and reliability of the items in the questionnaire. The analysis was carried out through the Structural Equation Modeling (SEM) technique using the Lisrel 87.0 program. The results showed that the variables of business actors / game development, organizational management by the government, local governments, mass and electronic media, and esports coaches had a positive effect on community involvement, family environment, and the application of esports in schools (SMA). Esports management in schools will result in an increase in quantity and quality. These various variables need to be considered in the development of esports in schools by paying attention to indicators that contribute value to each variable, such as: Game Developers sponsor esports competitions, the government strengthens the management of esports organizations, local governments support esports infrastructure, the mass media supports influencer involvement, and so on.

KEYWORDS: esports, ecosystem, development, government, community, family, schools

1. INTRODUCTION

The development of Esports due to the rapid advancement of digital technology has almost hit the whole world, including Indonesia. Currently Esports has involved millions of players and is watched by people around the world, providing opportunities to drive the economy for world citizens, and absorbing a lot of workforce. However, Esports in the form of online games is often viewed from the negative side and as an obstacle to adolescent development, such as: addiction, laziness, personality instability, and even crime. In fact, from the positive side, the form of Esports not only encourages the encroachment of new industries, employment, global social interactions, but also positive impacts from physical, psychosocial, social emotional, independence, responsibility, sportsmanship, and so on. As an esport, it cannot be played, competed for, and achieved optimal results if it is not supported by excellent physicality, high concentration, critical thinking, agility, patience, and so on.

The Ministry of Youth and Sports and the Indonesian National Sports Committee have esmi recognized Esports as an outstanding form of sport in Indonesia (Rizki, 2020). The decision was issued in a virtual meeting, as well as stipulating that the Indonesian Esports Association (PB ESI) was the only institution in the field of Esports as an outstanding sport. This recognition indicates that Esports can be competed in official national level competitions such as the National Sports Week (PON) and international (Primus, 2020).

The official recognition of Esports shows the need for good management, which can provide opportunities for youth in particular to take up this sport.Teens will understand that online gaming is not only an outlet for recreation, but also to develop their potential, aspirations and goals, and to create the ability to manage themselves.In addition, to convince parents and the community to better understand Esports, provide guidance, facilitate, assist and control the development of adolescents, so that they can better monitor, control, encourage competition and the achievements of this sport.A systematic and directed Esports management will not only enliven the industrial business in this field, absorb the workforce, but will also form competitive athletes, coaches, and others who have national and international achievements.

Several countries have developed this Esports seriously, such as China, the United States, England, Singapore, Australia, and others.In China, the support of the government has significantly increased this Esports sport (Editorial, 2020; Priono, 2020).In the United States, several well-known universities have opened this Esports department as a study program, for example the University of Staffordshire in the United States (Amalia, 2019).In Australia, for example, Murdoch University responds to Esports by building an Esports center, in addition to playing a role in Esports development, learning and Esports research.Murdoch University has allocated a total

of AV $ 360 million (approximately Rp.3.8 trillion) to build a new vertical campus, creating Digital Futures Academy Esports(https://hybrid.co.id/post/murdoch-university-bakal-bangun-pusat-Esports-on-campus-new).

In Indonesia, Esports has just been introduced and does not yet have many enthusiasts.Esports still need to be developed extensively.However, spreading Esports is not easy, especially online games rated more negatively impacted.The problem is how Esports be adopted by all levels of Indonesian society, in all its aspects.For this reason, an in-depth and systematic study is needed, in order to find a way or strategy to develop Esports.This study was conducted to determine the factors that influence the development Esports, so it can be concluded that the alternative strategy of deployment Esports in the area will attract all walks of life to follow this sport, especially teenagers.and students.

2. Literature Review

2.1. What is Esports?

Esports is one type of sport in the form of an online game that is mediated by the relationship between computers and humans. Esports is like any other sport that involves players, organizers, commentators, coaches, and so on (Hamari, 2017). Esports is a video game sport that has competitive characteristics, abilities and skills, as well as certain techniques and strategies. There are several features that can be categorized as esports, namely: a competitive game, having players and viewers via the internet or via computer, moving audiences, event organizers, team professionals, athletes, and so on. There are many types of Esports games grouped by genre (Kumparan, 2018; Hidayati et al, 2019; https://dailyspin.id/Esports/mobile-legends/ciri-game-masuk-kategory-Esports-indonesia/). Some examples of Esports online game genres include: First-Person Shooter (FPS), Multiplayer Online Battle Arena (MOBA), Battle Royal (BR), Mobile Games, Personal Computer (PC) Games, Game Console, FIFA / PESS, and others.

Esports is a technology-based activity that is able to provide benefits, both for industrial and employment businesses, as well as for esports players such as physical health, mental health, mindset, competence, skills, agility, and community professionalism. actors: athletes, coaches, committees, sponsors, and others (https://www.zurich.co.id/id-id/blog/articles/2019/09/ini-dia-5-dampak-positif-bentuk-game-online-who-can-peek). According to the 2013 APA research (in Amalia, 2020), playing games can improve children's cognitive abilities, including spatial navigation, perception, memory, and critical thinking. In spatial navigation, for example, games enhance spatial cognition (the ability to navigate in three-dimensional / 3D space) thereby building skills in science, technology, engineering and mathematics.

Esports requires players who are physically and mentally healthy, agile, competitive, and others. However, esports is open to anyone, even people with disabilities. Example: Rocky Hands (Esports players without hands) play a game with the help of QuadStick following competitive Unknown's Battlegrounds (PUBG) and Fortnite and successfully wins. In 2019 Rocky won 509 victories as Victory Royales. Another example is Soleil Wheler (Ewok), a 13-year-old deaf and mute woman who is able to play games well and is a member of the male-dominated Fortnite Clan game team.

2.2.Esports Ecosystem

The main components of the Esports ecosystem include: businessplayers/game development, pro teams, leagues, tournament events, channels / media, and brands and consumers(Vera & Aguido, 2019; Hidayati et al., 2019; Śliwa& Krzos, 2020).These various components build an organized and collaborating professional game.Game Publisher is a company that provides electronic or digital games, as well as organizing competitions;Players are figures who drive the ecosystem as electronic sports athletes, both individually and in esports team / club organizations;Tournaments and Leagues are Esports competition events;Brands and advertisements provide input for viewers to view and enjoy as enjoyable entertainment;TV and Media Channels are a means of communication with the audience on Esports (Scholz, 2020).

Playing online games in Esports can be done by anyone, via PC / Laptop / Notebook and android cellphone.However, there are requirements to become an esports athlete, especially motor skills and playing strategies, as well as a certain code of ethics.Like conventional sports, esports athletes who compete also adhere to age restrictions.Esports also supports implementation ethics as mutually agreed rules, so that the tournament runs in an orderly manner (Englin ed., 2016; NASEF, 2019).Through this code of conduct, it shows that Esports is not a game without direction, on the contrary it teaches ethics, behavior, manners, habits, character, friendship, tolerance, solidarity, and others.Codes of conduct can be issued for players, organizers / managers, or the business side.

2.3. Other Stakeholders

Apart from the ecosystem above, esports requires the role of other stakeholders, namely: the central government, local governments, schools, communities and families. The role of the central government is needed as a management organization and esports in issuing regulations and facilitating the development of esports in Indonesia

(Chung, et al, 2019; Peng, et al, 2020). Indeed, there are regulations that define esports as a form of sport. Regulation of the Minister of Communication and Information Technology No. 11/2016 classifies electronic interactive games as activities that allow for feedback and the least characteristics are electronic-based goals and rules in the form of software applications (https: // www .indotelko.com / read / 1471323358 / government-rules-online games). However, with the establishment of online gaming as a form of esports, it is still necessary to strengthen other regulations as a legal umbrella for its development in Indonesia, including types of online esports games, management standards, curriculum standards, and so on.

The implementation of government autonomy which gives greater authority to districts / cities also requires local participation, roles and support for the development of esports, both in terms of regulation, facilitation, and others.However, different from the regulations issued by the central government, local regulations are more of an effort to operationalize and develop esports.One of the roles of the regions is to control and supervise online games so that they are not just recreational games that contain violence, pornography, and others, but lead to constructive and positive types of games (Alfon, 2019).

Community participation is also needed in the development of esports, especially in the socialization and education of online games categorized as esports.Formal and non-formal figures are expected to play a role in socializing, educating, and encouraging the development of esports athletes.Various roles can be realized to increase youth activity and participation;supervising online game providers, inviting professional Esports athletes, coaches, organizers, and leading experts to provide explanations about Esports online gaming;and others (Jap, Tiatri, Jaya and Suteja, 2013; Febriandari, Nauli, and Rahmalia, 2016).

The school environment has an important role in socializing, educating, implementing curriculum, and developing esports athletes.Principals and teachers can support the implementation of esports by making rules, facilitating, collaborating with parents and game publishers, inviting esports athletes and coaches, explaining the benefits of esports, and so on.The role of the parties in the school is to foster esports for students, especially high school students, in collaboration with various other stakeholders in the development of psychosocial - socioemotional - and psychomotor health (Adiningtyas, 2017; Hallen, 200; and Paimun, 2005).

Whether we realize it or not, the family environment is often the cause of teenagers' addiction to playing online games. This addiction may have a negative impact, especially if parents do not understand online game play, supervise and control it. Online game facilities are only so that children feel at home, easy to supervise, do not disturb parents, and others (Koran Jakarta, 2018). However, these actions are often not accompanied by an understanding of the purpose of this electronic game, even triggering and encouraging addictive behavior with negative effects, such as: behaving aggressively, being selfish, and lacking understanding of others; adrenaline with anger, screaming, scolding, and the like; lying and fighting against parents; and so on, and vice versa does not bring positive benefits. In contrast to esports which has more positive benefits, including: reducing stress, training logic and speed of thinking, agility and skills, mental health, training spatial skills, determining strategies, increasing self-confidence, increasing collaborative skills, and so on (Tribunnews.com, 2018; Manurung, 2018; Ishak, 2020). On that basis, the role of family in the development of online esports games is not only to channel fun, but to build competitive and accomplished athletes.

2.4. Athlete Development

Esports athletes can be done individually or in groups (teams) who are fighting for achievements at the national and global levels.However, Indonesia is relatively new and lags behind other countries that have developed it as a form of sport, for example: China, Australia, the United States, Singapore, and others.The challenge that is still being faced in Indonesia is to socialize esports not only in the national capital or other big cities, but also to 34 provinces and 450 regencies / cities.Esports needs to attract the participation of various parties in the region and foster interest in becoming athletes in this sport.

One of the potentials for increasing Esports is through school institutions, especially at the senior high school level.Efforts need to do is how to increase the interest of students to seriously pursue Esports, professional, and reliable in the arena to compete in local, national, and international (Fidiansyah, 2019; Setiawan, 2020).

2.5. Theoretical framework

The factors above are thought to have a strong influence on the development of esports athletes among students in the regions.To search for an explanation of the influence of these factors on the theoretical framework built Esports research, as follows.

Figure 1. THEORETICAL FRAMEWORK STUDY OF INFLUENCE FACTORS ESPORTS DEVELOPMENT IN INDONESIA
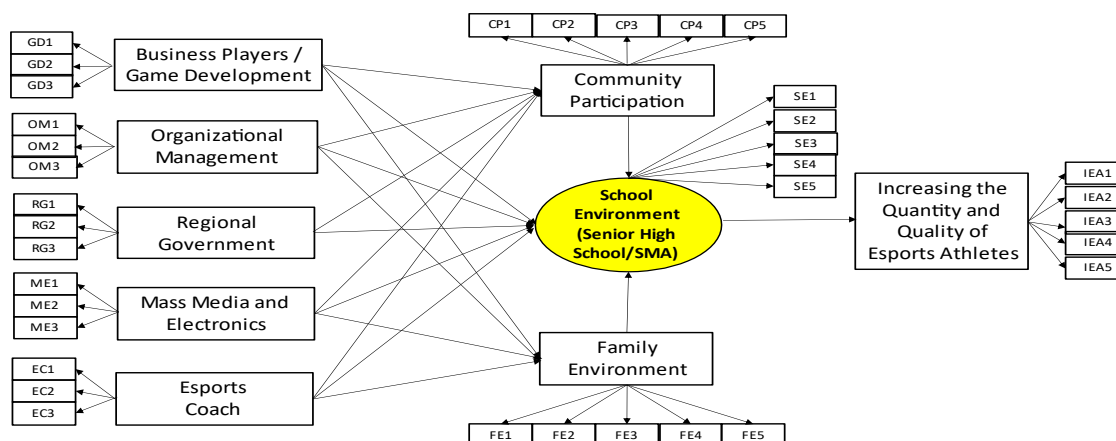
2. Methodology

This paper is part of the results of research in 2020 which wants to explain the factors that influence the development of esports. The object of research is senior high school (call: SMA) located in 6 (six) provincial capitals which are taken proportionally to two in western Indonesia (Jakarta - DKI Jakarta and Bandung - West Java); in Central Indonesia (Surabaya - East Java and Denpasar - Bali); and Eastern Indonesia (Makassar - South Sulawesi and Jayapura - Papua). Three secondary schools were sampled from each provincial capital. The number of sample schools is 18 schools.

Data collection was carried out through questionnaire distribution techniques, interviews, and discussions.The questionnaire technique is the main data collector which is given to students purposively random as many as 30 people from each school (a total of 540 students).The sample of students selected is those who know and have played online games.Before the data is used in field research, first the validity and reliability tests are carried out using the product moment criteria from Pearson and Cronbach Alpha with the help of SPSS version 24.0 (Sugiyono, 2017).Interviews were conducted with school principals, teachers, and other parties.In addition, this study also conducted Focus Group Discussions with a number of parties from schools, communities, school committees and elements of local government.

The research analysis used Structural Equation Modeling (SEM) with the help of the Lisrel 8.70 program. The analysis mainly includes the GOF model, the structure of the relationship between the variables studied, and the contribution of indicators for each variable (Ferdinand, 2002; Hair, et. Al, 2004; Haryono & Wardoyo, 2017).

3. Results

3.1. Characteristic Respondent

From the distribution of questionnaires in 6 (six) provincial capitals (Jakarta, Bandung, Surabaya, Denpasar, Makassar and Jayapura), answers were obtained from 512 (94.8%) male students and 28 (5.2%) female students. The reality is that online games are more popular among boys than girls. Maybe because boys find it easier to find satisfaction channels playing online games, at home via PC / Laptop / Mobile (77.8%) or computer rentals that provide this game service (22.2%). Games that are liked are various, ranging from Mobile Legends Bang Bang, Call of Duty Mobile, Black Dessert Mobile, Clash of Clans, Lineage2 Revolution, Garena Free Fire, PUBG Mobile, and others.

Generally, student respondents stated that playing online games was for fun, eliminating boredom, and filling spare time. The skills to play online games are acquired through self-study, without the help of others (for example: coaches). Playing does not rely on the desire to achieve, even though every time you try to get a game score that continues to increase. Indeed, there is often competition in playing games with opponents from within the country or from other countries, but it has not been managed through professional organization. How the answers about the Esports game are shown in table 1 below.In the table, it appears that student respondents tend to give positive responses to esports and its development in school.

Table 1. Student Respondents' Views of Esports (n=540)

No.	Answered	Strongly Disagree	Disagree	Doubtful	Agree	Strongly Agree
1.	Esports can be a source of a better life	10.0%	12.0%	13,3%	47.2%	17.5%
2.	Online games can create achievement	2.2%	4.6%	16.0%	63.3%	13.9%
3.	Online games are just for fun	22.0%	45.6%	4.6%	18.5%	9.3%
4.	Online gaming is a competitive sport	2.2%	6.1%	12.1%	43.3%	36.3%
5.	There is a desire to become an esports athlete	5.9%	8.9%	7.8%	54.6%	22.8%
6.	Playing online games needs a professional coach	12.0%	13.9%	6.5%	41.1%	26.5%
7.	Introduction to Esports at school	5.9%	8.3%	11.1%	47.0%	27.6%
8	The Esports curriculum needs to be taught in schools	-	12.2%	4.4%	57.8%	25.6%
9.	There is an Esports teacher at the school	4.6%	8.5%	13.9%	38.9%	34.1%
10.	Students are potential Esports athletes	2.2%	6.7%	8.3%	73.0%	9.8%
11.	Schools need to have coaches Esports	8.1%	11.9%	5.5%	57.8%	16.7%
12.	School collaboration with the Esports industry	5.2%	13.7%	14.1%	51.2%	15.6%
13.	Esports competitions for students	-	-	18.1%	63.9%	18.0%
14.	Students with an interest in Esports need school guidance	-	4.4%	8.3%	76.3%	11.0%
15.	Parent / school committee support in developing Esports	3.3%	3.7%	7.8%	63.3%	21.9%

*Source: Study influence factors Esports development in Indonesia, 2020.

3.2. Goodness Fit Models (GOF Models)

Confirmatory Factor Analysis (CFA) is a way to determine the operationalization of variable and indicator constructs (Hair et al, 2010; Haryono and Wardoyo, 2017; Sarjono and Yulianita, 2019). CFA is also used to view the Goodness of Fit Models as a test of conformity between observed and expected frequencies. Through the results of testing variables and indicators as a whole or partially, it shows that the Fit or SEM model is good and able to answer the theory built or vice versa. This suitability test is important to do, because the structural model analysis in SEM begins based on the Goodness-of-Fit (GFI) statistical indicator on the LISREL output. Overall, the summary of the critical value of the suitability model test can be seen from the summary in table 2. Table 2 shows, all indicators show that the SEM model is Fit or good. Data from the questionnaire has been able to answer the theory is built.

Table 2. Goodness of Fit Models

Goodness-of-Fit	Cutt-off-Value	Results	Conclusion
RMR (Root Mean Square Residual)	$\leq 0{,}05$ atau $\leq 0{,}1$	0.0214	Good Fit
RMSEA (Root Mean square Error of Approximation)	$\leq 0{,}08$	0.0235	Good Fit
GFI (Goodness of Fit)	$\geq 0{,}90$	0.95	Good Fit
AGFI (Adjusted Goodness of Fit Index)	$\geq 0{,}90$	0.93	Good Fit
CFI (Comparative Fit Index)	$\geq 0{,}90$	0.96	Good Fit
Normed Fit Index (NFI)	$\geq 0{,}90$	0.96	Good Fit
Non-Normed Fit Index (NNFI)	$\geq 0{,}90$	0.94	Good Fit
Incremental Fit Index (IFI)	$\geq 0{,}90$	0.94	Good Fit
Relative Fit Index (RFI)	$\geq 0{,}90$	0.97	Good Fit

*Source: Study influence factors Esports development in Indonesia, 2020.

3.3. Structural Relationships

Data processing using the help of the Lisrel 8.70 program produces a structural model of the variables and indicators studied, as follows.
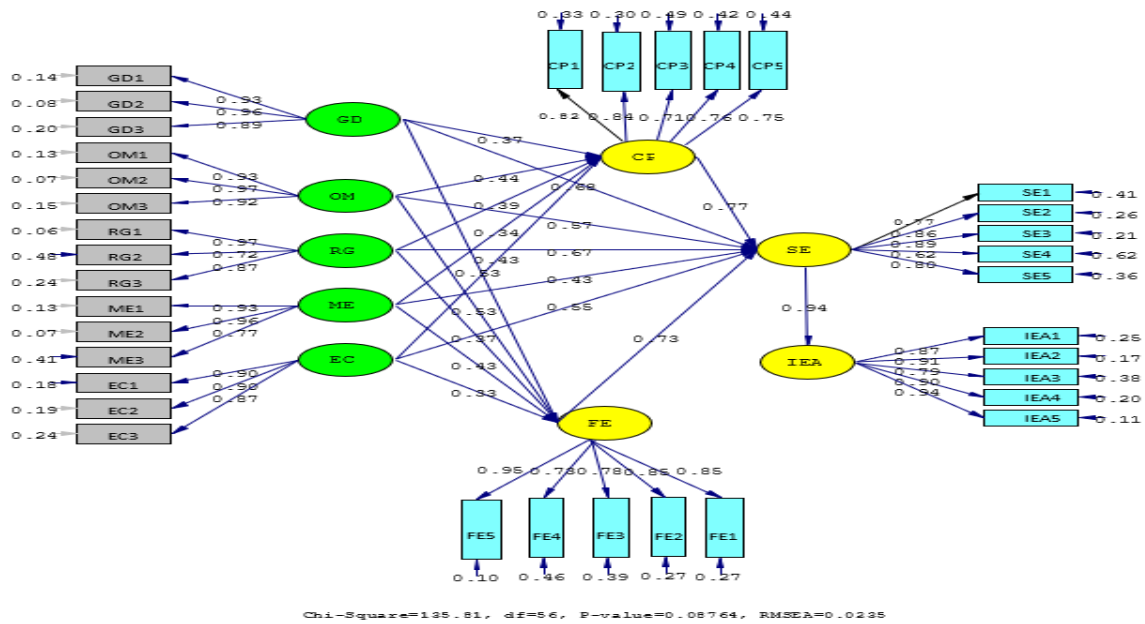
Figure 2. Standardized Coeficient
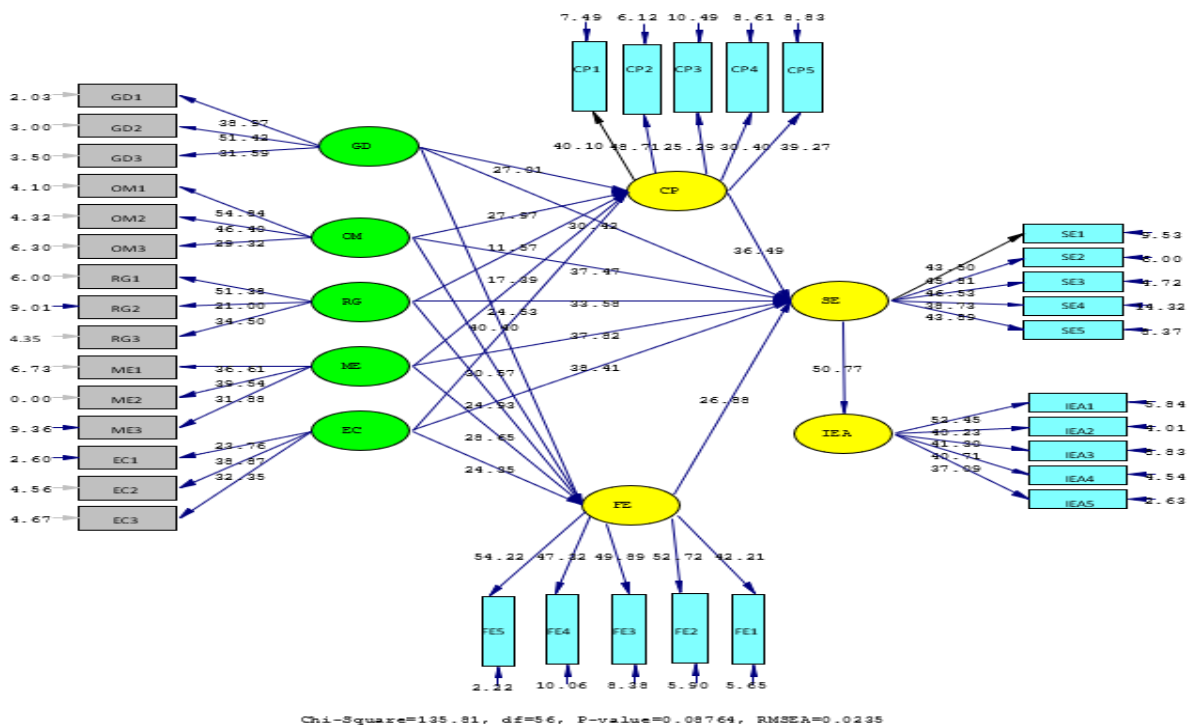*Source: Study influence factors Esports development in Indonesia, 2020.

Figure 3. T Count
*Source: Study influence factors Esports development in Indonesia, 2020.

3.4. Hypothesis Test

From figures 2 and 3, the results of the research hypothesis test are presented in table 3 below.

Tabel 3. Hypothesis Test

	Hypothesis	SLF	T-Count	Conclusion
H1	Game Development (GD) **-->**Community Participation (CP)	0.37	27.01	Significant positive
H2	Organizational Management (OM)**-->**Community Participation (CP)	0.44	27.97	Significant positive
H3	Regional Government (RG)**-->**Community Participation (CP)	0.39	11.57	Significant positive

H4	Mass media & Electronic (ME)**-->**Community Participation (CP)	0.34	17.39	Significant positive
H5	Esports Coach (EC)**-->**Community Participation (CP)	0.43	24.53	Significant positive
H6	Game Development (GD) **-->** Family Environment (FE)	0.53	40.40	Significant positive
H7	Organizational Management (OM) **-->** Family Environment (FE)	0.53	30.57	Significant positive
H8	Regional Government (RG) **-->** Family Environment (FE)	0.37	24.93	Significant positive
H9	Mass media & Electronic (ME) **-->** Family Environment (FE)	0.43	28.64	Significant positive
H10	Esports Coach (EC) **-->**Family Environment (FE)	0.33	24.35	Significant positive
H11	Game Development (GD) **-->**School Environment (SE)	0.68	30.42	Significant positive
H12	Organizational Management (OM) **-->** School Environment (SE)	0.57	37.47	Significant positive
H13	Regional Government (RG) **-->** School Environment (SE)	0.67	33.58	Significant positive
H14	Mass media & Electronic (ME) **-->** School Environment (SE)	0.43	37.83	Significant positive
H15	Esports Coach (EC) **-->**School Environment (SE)	0.55	38.41	Significant positive
H16	Community Participation (CP) **-->** School Environment (SE)	0.77	36.49	Significant positive
H17	Family Environment (FE) **-->** School Environment (SE)	0.73	26.88	Significant positive
H18	School Environment (SE) **-->** Increase Athlete Esports (IEA)	0.94	50.77	Significant positive

*Source: Study influence factors Esports development in Indonesia, 2020.

3.5. Contribution of Indicators to Variables

Based on the results in Figure 2, it can be seen that the relationship between the indicators and the variables studied. The goal is to find out how the contribution of the indicators contained in each of the variables used. The results of the indicator's contribution to the variables are shown in table 4 below.

Table 4. Contribution of Indicators to Variables

Variables	Indicators	Loading value	Construct Coeff.	Contribution
Business Players/ Game Development (GD)	GD1 = Provision of the type of online game industry	0.14	0.93	0.1302
	GD2 = Esports development information	0.08	0.96	0.0768
	GD3 = Sponsor of the Esports competition	0.20	0.89	0.1780
Organizational Management (MO)	OM1 = Issuance of regulations	0.13	0.93	0.1209
	OM2 = Infrastructure support	0.07	0.97	0.0679
	OM3 = Strengthening the Esports organization	0.15	0.92	0.1380
Regional Government (RG)	RG1 = Esports organization development	0.06	0.97	0.0582
	RG2 = Esports infrastructure support	0.48	0.72	0.3456
	RG3 = Socialization of community involvement	0.24	0.87	0.2088
Mass Media and Electronics (ME)	ME1 = Esports Promotion	0.13	0.93	0.1209
	ME2 = Broadcasting of Esports activities and competitions	0.07	0.96	0.0672
	ME3 = Influencer engagement	0.41	0.77	0.3157
Esports Coach (EC)	EC1 = The adequacy of the number of coaches	0.18	0.90	0.1620
	EC2 = Achievement building activities	0.19	0.90	0.1710
	EC3 = Coach professionalism	0.24	0.87	0.2088
	CP1 = As an online game organizer	0.33	0.82	0.2706

Community	CP2 = Participation of infrastructure for playing online games	0.30	0.84	0.2520
Participation	CP3 = Involvement of community leaders	0.49	0.71	0.3479
(CO)	CP4 = College participation	0.42	0.76	0.3192
	CP5 = Supervision and control	0.44	0.75	0.3300
	FE1 = Understanding of Esports	0.10	0.95	0.0950
Family	FE2 = Provision of online gaming facilities at home	0.46	0.78	0.3588
Environment	FE3 = Allocation of playing time	0.39	0.78	0.3042
(CE)	FE4 = Supervision	0.27	0.85	0.2295
	FE5 = Assistance with Esports skills	0.27	0.85	0,2295
School Environments Senior High School/SMA (SE)	SE1 = Esports learning curriculum at school	0.41	0.77	0.3157
	SE2 = Support for Esports infrastructure in schools	0.26	0.86	0.2236
	SE3 = Provision of an Esports trainer	0.21	0.89	0.1869
	SE4 = Esports development team at school	0.62	0.62	0.3844
	SE5 = Allocation of Esports time at school	0.36	0.80	0.2880
Increasing the quantity and quality of athletes Esports (IEA)	IEA1 = Increased student interest	0.25	0.87	0.2175
	IEA2 = Increased professionalism of athletes	0.17	0.91	0.1547
	IEA3 = Increased stakeholder support	0.38	0.79	0.3002
	IEA4 = Improvement of Esports facilities in schools	0.20	0.90	0.1800
	IEA5 = Participation in Esports competitions	0.11	0.94	0.1034

*Source: Study influence factors Esports development in Indonesia, 2020.

4. Discussion

Table 3 shows that the Business Players / Game Development (GD), Organizational Management (OM), Regional Government (RG), Mass Media and Electronic (ME), and Esports Coach (EC) variables have a significant positive effect on the Community Participation variable. Family Environment (FE), and School Environment (SE) in the development of Esports. The school environment (SE) tends to have a significant positive effect on the increase in esports athletes in school, both in quantity and quality. On that basis, these various variables need to be considered in an effort to develop esports in the school environment, especially in increasing interest and the number of high school students who are the focus of this research.

Business Players / Game Development (GD) has a positive influence on Community Involvement (CP) with a coefficient value of 0.37, Family Environment (FE) with a coefficient value of 0.53, and School Environment (SE) with a coefficient value of 0, 68. These results indicate that the direct effect of business actors / game development (GD) on the school environment (SE) records the coefficient value is greater than the indirect effect through community involvement (CP) and family environment (FE). From Business Players / Game Development (GD), 3 (three) indicators are used that contribute to this variable, namely: Provision of the type of online game industry (GD1), Esports development information (GD2), and Sponsor of the Esports competition (GD3). From data processing, it was found that the Esports competition sponsorship indicator (GD3)

contributed the greatest value of 0.1780 to the GD variable, followed by the provisions of the online game industry type indicator (GD1) of 0.1302; and the Esports development information indicator (GD2) of 0.0768. These results indicate that online gaming business players are not only entrepreneurs who produce and market online games in Indonesia, but must also play a role in sponsoring local, national, and international esports competitions (Chikish, Garci, & Carrerash, 2019; Cannon-Pits, 2019; Luckbox Magazine, 2019). In addition, these business players are required to continuously provide information on the development of Esports in the world, including information about Esports competitions in various countries.

Organizational Management (OM) is the management of esports organizations by the government as a coach that has a positive influence on community involvement (CP), family environment (FE), and school environment (SE). In the management of this organization, 3 (three) indicators are used that contribute value to this variable, namely: Issuance of Regulation (OM1), Infrastructure Support (OM2), and Strenghening the Esports Organization (OM3). From data processing, it was found that the indicator of strengthening the esports organization (OM3) contributed the highest value of 0.1380, followed by the issuance of regulation (OM1) indicator of 0.1209, and infrastructure support (OM2) of 0.0679. These results indicate that in coaching by the government, it is necessary to develop an esports organization that is distributed from the central level to the regions related to strengthening

its management. Esports will not develop if it is not supported by the strengthening of this organization, including the necessary infrastructure. Esports is difficult to develop in the regions if it is not supported by a strong organization, regulations, and conducive infrastructure, both for management and training instruments for esports trainers and athletes (Putra, 2017; Faerty, 2018; Persada, 2020).

The role of the Regional Government variable (RG) also has a positive effect on community participation (CP), family environment (FE), and school environment (SE). The direct positive effect of GM was shown to be greatest on SE (0.67) compared to CP (0.39) and FE (0.37). In this RG variable, there are three indicators that are considered to be contributing, namely: esports organization development (RG1), Esports infrastructure support (RG2), and community engagement socialization (RG3). From data processing, it is known that the esports infrastructure support indicator (RG2) contributed the highest value to the Local Government variable (RG) of 0.3456, followed by the socialization of community involvement (RG3) 0.2088, and the development of esports organizations (RG1) of 0.0582. . Strictly speaking, local governments are considered to have an important role in supporting the provision of esports infrastructure in their region, both in the management of this sport, as well as the ease and smoothness of coaching activities for esports coaches and athletes (Desmaryani, 2017). ; Elijah, 2018).

Mass Media and Electronics (ME) also have a positive influence on community participation (CP), family environment (FE), and school environment (SE). In the ME variable, three indicators are used that contribute, namely: Esports promotion (ME1), Broadcasting of Esports activities and competition (ME2), and Influencer engagement (ME3). From data processing, it was found that the Influencer engagement (ME3) indicator contributed the highest value to the Mass Media and Electronic (ME) variable of 0.3157, followed by the Esports promotion indicator (ME1) of 0.1209, and the indicators of broadcasting Esports activities and competitions (ME2) of 0.0672. These results indicate the importance of influencers' role in esports activities, especially in attracting public interest (especially young students) to take up this sport. Influencers become promotion mediators, news, and broadcast of Esports competitions through various mass and electronic media (Baltezarevic, Baltezarevic, & Baltezarevic, 2018; Elia, 2019; Khair, 2019; Scholz, 2020).

Esports Coach (EC) also has a positive influence on community participation (CP), family environment (FE), and school environment (SE). Respondents considered the positive influence most needed by schools (0.55), compared to the

community (0.34) and families (0.43), especially in arousing student interest. There are three indicators in this EC variable to see the contribution of the value given, namely: the adequacy of the number of coaches (EC1), achievement building activities (EC2), and trainer professionalism (EC3). From data processing, it was found that the indicator of professionalism coach (EC3) gave the highest value to this Esport Coach (EC) variable of 0.2088, followed by an indicator of achievement building activities (EC2) of 0.1710, and an indicator of the adequacy of the number of coaches (EC1) of 0.1620. These results indicate that professional coaches are more needed in developing esports in schools. Attracting students' interest in this sport needs to be complemented by the provision of professional coaches, so that it is expected to produce professional athletes. This result is in line with the second indicator that prioritizes the importance of activities (esports) to build achievement, not just the adequacy of the number of coaches who do not have sufficient competence and professionalism (Brahmantyo, 2018; Estu, 2018; Kurniawan, 2019; Dennys, 2020).

On the other hand, the community participation variable (CP) has a positive effect on the school environment (SE) with a coefficient of 0.77. In community participation (CP), 5 (five) indicators that give value to these variables are used, namely: As an online game organizer (CP1), participation in online game play infrastructure (CP2), involvement of community leaders (CP3), Higher Education Participation (CP4)), and Supervision and Control (CP5). From the data processing, it is known that the indicator for the involvement of community leaders (CP3) contributed the highest value to this CP variable of 0.3479, followed by the supervision and control indicator (CP5) of 0.3300, the indicator of college participation (CP4) of 0.3192. , an indicator as an online game organizer. (CP1) of 0.2705, and the participation indicator of online gaming infrastructure (CP2) of 0.2520. These results indicate the importance of the role of community leaders in spreading the meaning and activities of esports in their area, through various existing platforms and potentials (religious / customary organizations, non-formal community organizations, village government institutions, youth associations, scout organizations, and others).

Many studies show the importance of involving formal and non-formal figures in supporting program implementation. One of them is due to the character's ability to mobilize and involve community members in the program (Nurviyasari, 2012; Yuliana, 2013; Kusnadi & Iskandar, 2017). Emotional relationships between figures and community members often become the potential to drive and achieve successful program

implementation (Koentjaraningrat, 2013; Rati, Chotimah, & Alfiandra, 2017). In line with this opinion, respondents also consider the importance of the role of community supervision and control of online game play so that does not cause a negative impact, and the involvement of universities in the implementation of esports, especially health experts. psychology, and others. The role of the community as the organizer of online game games and the provision of esports infrastructure is considered insignificant in the community participation variable (CP).

Family environment (FE) also has a positive effect on the school environment (SE) in an effort to develop esports. There are 5 (five) indicators used in the family environment variable (FE), namely: understanding of esports (FE1), providing online gaming facilities at home (FE2), allocation of play time (FE3), supervision (FE4), and assistance for increasing n Esports skills (FE5). The indicator for the provision of online gaming facilities at home (FE2) contributed the highest value to the Family Environment variable (FE) of 0.3588, followed by the indicator of playing time allocation (FE3) of 0.3042, supervision (FE4) and assistance to increase Esports skills (FE5) with the same value contribution of 0.2295, and understanding of the Esports indicator (FE1) of 0.0950. The role of families in providing facilities to play online games at home is a top priority in child development (Esports, 2020; Ikhwanuddin, 2020; Bagus, 2020). Many students said that online game play training, especially for the Esports category, would not run smoothly if they did not have their own playing device. Playing outside using other people's equipment, for example, internet rental services, apart from requiring certain funds, also has a limited time. Becoming skilled and professional in online gaming requires a continuous allocation of time to practice accompanied and mentored by a professional trainer. Parents also need to supervise their children playing inside and outside the house, so that they are kept under control and do not cause negative effects. But it doesn't require a deep understanding from parents about Esports.

All of the variables described above have a positive effect on the school environment (SE), so they require serious and simultaneous attention in supporting the development of esports in schools. There are 5 (five) indicators that need to be considered in the development of esports in this school, namely: school esports learning curriculum (SE1), Esports infrastructure support in schools (SE2), provision of Esports trainers (SE3), Esports development team in schools (SE4)), and the allocation of school esports time (SE5). The indicator of the developent team at school (SE4) contributes the highest value as an effort that must be realized in the development of Esports in

schools (SE), namely 0.3844, followed by an indicator of the importance of the Esports learning curriculum in schools (SE1), an indicator of time allocation for Esports training in schools (SE5) of 0.2880, the indicator of esports infrastructure support in schools (SE2) of 0.2236, and procurement of esports trainers in schools (SE3) of 0.1869.

In schools needs to be a team of developers who have the duty and function of executing Esports. The team is a work unit that develops esports in schools, starting from developing an esports learning curriculum, providing support for esports facilities, scheduling activities, procuring coaches, to attracting, recruiting, and fostering students to become esports athletes. Through this team, Esports also communicated to parents and the wider community to explain the positive aspects of Esports, ranging from the types of online games, goals, competition, future prospects, and others. The development team is also tasked to work closely with other stakeholders to support the implementation of Esports in school.

The perception of the emphasis on indicators in the school environment variable (SE) is important to note and can determine the achievement of esports development in this educational institution. This will develop the implementation of esports in schools, both in increasing support to parents, communities, local governments, and others; increased student interest in esports; provision of esports facilities in schools, increasing the number of professional esports athletes in schools; and participation in local, national, and international esports competitions. Explicitly, the increase in the school Esports include aspects of quantity and quality, relevant curriculum, athletes, facilities, support of stakeholders, and others.

CONCLUSION

The results of this study found that the variables of business actors / game publishers (GD), organizational management by the government as supervisor (OM), the role of local government (RG), the role of mass media and electronics (ME), and the role of esports coach (EC) had a positive effect directly and indirectly through Community Participation (CP) and Family Environment (FE) to the School Environment (SE). Taking into account the various variables above tends to increase school participation in esports, both in terms of support from stakeholders (parents, community, local government, etc.); student interest in esports; esports facilities in schools, the number of professional esports athletes in the school; and participation in local, national and international competitions.

Attention to the above variables also needs to be directed at the indicators that provide the

highest value contribution in efforts to develop Esports in schools. Among these indicators, for example: information on and organizing Esports competitions by industrial business players, strengthening of Esports management organizations by the government at the central and local levels, support for Esports infrastructure by local governments, involving the role of community leaders (formal and non-formal), supporting facilities. playing Esports online games at home, engaging influencers in promoting and introducing Esports in schools, forming Esports development teams at schools, and so on.

REFERENCES

Amalia, E. I. (2019). *Bringing Esports to School, Is It Possible?*https://hybrid.co.id/post/membawa-Esports-ke-sekolah-mungkinkah.

Amalia, E. I. (2020). *Various Research Results on the Positive Effects of Playing Games*. https://hybrid.co.id/post/pengaruh-positif-bermain-game.

Bagus, R. (2020). *Esports Athlete Development Need Parents and School Support*. https://akurat.co/iptek/id-1208253-read-pembinaan-atlet-esports-butuh-dukungan-orangtua-dan-sekolah

Baltezarevic, V., Baltezarevic, R., & Baltezarevic, B. (2018). the impact of video games on the esports formation. *FACTA UNIVERSITATIS Series Electronics and Energetics*, Vol. 16(1): 1 - 13.DOI: 10.22190/FUPES170614012B

Brahmantyo, J. A. (2018). *Associations and MNC's Efforts in Making Esports an Olympic Sport*. Thesis, Jember: University of Jember, faculty of Social and Political Sciences.

Cannon-Pits, M. (2019). *Get into the Game: How eSports Sponsors Are Building Lucrative Brand Partnerships Now, and for the Future.*https://www.magneticcreative.com/journal/ esports-sponsors/

Chikish, Y., Garci, J., & Carrerash, M. (2019). *eSports: A New Era for the Sports Industry and a New Impulse for the Research in Sports (and) Economics?*https://www.researchgate.net/publication/332781901_eSports_A_New_Era_for_the_Sports_Industry_and_a_New_Impulse_for_the_Research_in_Sports_and_Economics

Chung, T., Sum, S., Chan, M., Lai, E., & Cheng, N. (2019). Will esports result in a higher prevalence of problematic gaming? A review of the global situation. *Journal of Behavioral Addictions*, Vol. 8(3): 384–394. doi: 10.1556/2006.8.2019.46

Custer, K., Russell, M. (2019). *Gaming Concept: A Video Gaming Curriculum for Schools*. www.highschoolEwsportsleague.com

Dennys, F. (2020). An Important Key in Developing Esports Athletes. https://www.kompas.com/sports/read/2020/09/04/20400028/kunci-penting-dalam-pembinaan-atlet-esports?page=all.

Desmaryani, S. (2018). The Role of Regional Government in Growing Small and Medium Enterprises' Performance towards Creative Industry in Jambi Province. *Journal of Home Affair Governance*, Vol. 9(1), 159 – 169.
DOI: https://doi.org/10.21787/jbp.09.2017.159-169

Elia, Y. (2018). *Between Esports and Government in 'Small' Countries: Is it Significant?*https://zilbest.com/gaming/between-esports-and-government/

Elia, Y. (2019). *Game media can actually play an important role in supporting the sustainability of the ecosystem.*https://hybrid.co.id/post/mengukur-peran-media-game-di-ekosistem-esports-indonesia

Englin, J. Ed. (2016). *An Esports Code of Conduct; For Players, Organizers, and Parents*. http://www.sverok.se/wp-content/uploads/2016/06/An-esports-Code-of-Conduct. pdf

Esports. (2020). *This is the Important Role of Parents and Schools to Support Esports Athletes!*https://duniagames.co.id/discover/article/peran-orang-tua-dan-sekolah-untuk-mendukung-atlet-esport

Estu, P. W. (2018). *All About Athletes Esports: Difference of Professional and Amateur*. https://metaco.gg/mobile-legends/serba-serbi-atlet-esports-perbedaan-antara-profesio nal-dan-amatir

Faerty, F. R. (2018). *The IESPA (Indonesia E-sports Association) Strategy in R-sports Campaign in Indonesia*. Thesis, Yogyakarta: Indonesian Islamic University.

Ferdinand, A. (2002). *Structural Equation Modeling in Management Research: Application of Complex Models in Research for Master's Thesis & Doctoral Dissertation*, Publisher: BP Undip.

Fidiansyah, K. (2019). *Already 4 Educational Institutions That Opened Hands For Esports*.https://www.striker.id/76317/e-sport/sudah-4-lembaga-pendidikan-yang-membuka-tangan-untuk-esport

Hair Jr. J. F., William C., Black Ba. J.,& Babin R. E. A. (2010). *Multivariate Data Analysis*. United States: Pearson.

Hamari, J. (2017). *What is Esports and whydo people watch it*?. Internet Research, Vol. 27(2), 211-232. Emerald Publishing Limited.

Haryono, S., & Wardoyo, P (2013). *Structural Equation Modeling (SEM) for Management Research with AMOS 18.00*. Jakarta: Luxima Metro Media.

Hidayati, S., Meilina, M., Harwin, A., & Philadona, J. R. (2019). *Secondary Education Esports Curriculum* (SMA / MA / SMK / MAK / SMALB). Draft, Jakarta: Aerowolf.

https://hybrid.co.id/post/murdoch-university-bakal-bangun-pusat-Esports-di-kampus-barunya

https://www.indotelko.com/read/1471323358/pemerintah-aturan-gameonline.

https://www.gameprime.org/2017/05/top-game-publishers-indonesia/

https://newzoo.com/insights/articles/industry-first-report-evolution-Esports-ecosystem/

https://www.korankaltim.com/gaya-hidup/read/25019/deretan-5-publisher-game-ternama-di-indonesia

https://Esports.id/other/news/2018/02/7f5d04d189dfb634e6a85bb9d9adf21e/blizzard-rilis-aturan-baku-kode-etik-Esports-populer code of conduct

https://www.guinnessworldrecords.com/news/2019/9/rockynohands-the-disabled-fortnite-gamer-who-uses-a-mouth-operated-joystick-to/

https://edition.cnn.com/2019/08/01/tech/ewok-fortnite-soleil-wheeler/index.html)

https://www.roundhillinvestments.com/blog/Esports-viewership-vs-sports

https://info.jkcp.com/blog/Esports-jobs-gaming-careers

https://www.zurich.co.id/id-id/blog/articles/2019/09/ini-dia-5-dampak-positif-pengaruh-game-online-yang-bisa-anda-intip.

https://dailyspin.id/Esports/mobile-legends/ciri-game-masuk-kategori-Esports-indonesia/

Ikhwanuddin, M. (2020).*The Importance of Parents and Schools for Esports Athletes.*https://republika.co.id/berita/sepakbola/arena-olahraga/qg61i9456/pentingnya-peran-orang-tua-dan-sekolah-untuk-atlet-emesportsem

Ishak, J. (2020). *Three Positive Benefits of Active Esports Games.*https://www.indosport.com/Esports/20200505/tiga-manfaat-positif-dari-keaktifan-bermain-game-Esports

Jakarta Newspaper. (2018). http://www.koran-jakarta.com/dampak-buruk-gadget/

Khair, A. (2019). *Global Esports Trends and Their Relation to Social Media.* https://www.kincir.com/game/mobile-game/tren-esports-dunia-dan-kaitannya-dengan-media-sosial

Koentjaraningrat. (2013). *Introduction to Anthropology.* Jakarta: Gramedia.

Kumparan. (2018). Esports: Playing Games, Why, is it Called Sports ?https://kumparan.com/kumparansport/Esports-main-game-kok-disebut-olahraga-1533295225512257369

Kurniawan, F. (2019). E-Sport in the Current Sports Phenomenon. *JORPRES (Achievement Sports Journal)*, Vol. 15 (2), 2019, 61-66. https://journal.uny.ac.id/index.php/jorpre

Kusnadi, E., & Iskandar, D. (2017). The Role of Community Leaders in Building Youth Citizen Participation of the Youth Organization. *Proceedings of the III National Citizenship Conference III*, 358 - 363. Yogyakarta: Ahmad Dahlan University.

Law of the Republic of Indonesia No. 9/2015 on Regional Government.

Luckbox Magazine. (2019). The Business of Esports. https://issuu.com/luckbox/docs/1907-digitaledition-issuu/s/128936

Malik, I. H. (2015).SocioEconomic, Political and Ecological Aspects of Ecotourism in Kashmir. *BEST: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS),*Vol. 3(11), 155-166.

Manurung, I. R. (2018). *Not Many Know, 5 Benefits It Can Be Obtained Athletes Esports*https://www.indosport.com/sportainment/20180627/tak-terduga-5-khasiat-ini-bisa-didapat-atlet-Esports.

NASEF. (2019). *Code of Conduct*, North America Shcolastic Esports Federation.

Nurviyasari, F. (2012). *The Role of Community Characters in Improving Participation of Citizens Learning a Literacy Program Functional at PKBM Tanjungsari, Tanjungharjo, Nanggulan, Kulon Progo*, Thesis. Yogyakarta: Yogyakarta State University. https://core.ac.uk/download/pdf/33529564.pdf

Peng, Qi Peng, Q., Dickson, G., Scelles, N., Grix, J., &Brannagan, B. M. (2020). Esports Governance: Exploring Stakeholder Dynamics. *Sustainability*,Vol. 12, 8270. doi:10.3390/su12198270

Persada, Y. B. (2020). *Review of E-sport References in Sports (Overview of Social, Cultural, Economic, Physiological Aspects, and Sports Philosophy).* Semarang: Semarang State University.

Primus, J. (2020). *Esports is an achievement sport, this is KONI's hope*. https://www.kompas.com/sports/read/2020/08/27/19562788/Esports-jadi-olahraga-prestasi-ini-harapan-koni.

Priyono, A. (2020). *Chinese Esports is Growing 25% Due to Government Support*. https://hybrid.co.id/post/Esports-tiongkok-berkembang

Putra, R. M. S. (2017). *The Development of Esports in the Eyes of the International and Its Recognition and Influence on Society in Indonesia*. Thesis, Bandung: Parahiyangan Catholic University.

Rati, E. A., Chotimah, U., & Alfiandra. (2017). Influence of Village Chairman Leadership on Community Participation in Village Development in Sako Makmur Village Kecamatan Sembawa Kabupaten Banyuasin. *The Journal of Bhinneka Tunggal Ika*, Vol. 4(1), 71-80.

Redaksi. (2020). *Seeing the development of Chinese esports*. https://Esportsnesia.com/fokus/perkembangan-Esports-china/

Regulation of the Minister of Communication and Information No. 11 of 2016 concerning the Classification of Electronic Interactive Games.

Rothwell, G., & Shaffer, M. (2019). Esports in K-12 and Post-Secondary Schools. Educ. Sci. 9, 105.

Rizki, A. (2020). *The Government Inaugurates Esports As Achievement Sports.*. https://www.oneEsports.gg/id/seputar-game/pemerintah-resmikan-Esports-sebagai-cabang-olahraga-prestasi/

Scholz, T. M. (2020). Deciphering the World of eSports. *International Journal on Media Management*, Vol. 22 (1), 1–12. https://doi.org/10.1080/14241277.2020.1757808

Setiawan, R.R. (2020). *E-sport, antara prestasi dan program pendidikan di sekolah*. https://www.alinea.id/gaya-hidup/e-sport-antara-prestasi-dan-program-pendidikan-di-sekolah-b1ZHV9ruq

Śliwa, P., & Krzos, G. (2020). The Model of eSports Ecosystems Conference: Hradec Economic Days 2020. DOI: 10.36689/uhk/hed/2020-01-080

Sugiyono. (2017). *Quantitative and Qualitative Research Methods and R & D*. Bandung: Alfabeta.

Tribunnews.com. (2018).*Esports is said to have many benefits for teenagers by psychiatric experts from the University of Indonesia.*https://www.tribunnews.com/sport/2018/09/10/Esports-disebut-miliki-banyak-manfaat-untuk-remaja-oleh-pakar-kejiwaan-universitas -indonesia.

Vera, J. A. C., & Aguado, J. M. (2019). The eSports ecosystem: Stakeholders and trends in a new show business. *Catalan Journal of Communication and Cultural Studies*, Vol. 11(1): 3-22 DOI: 10.1386/cjcs.11.1.3_1

World Economy Forum. (2015). *New Vision for Education Unlocking the Potential of Technology*. https://widgets.weforum.org/nve-2015/

Yadav, M., Goswami, T, N., &Ray, S. N. (2017). Study of Seasonal Variations in Population Dynamics of Spider Families in Paddy Agro-Ecosystem. *International Journal of Agricultural Science and ResearchSabour*, Vol. 7(4), 479-484. DOI:10.24247/ijasraug201761

Yuliana, E. (2013). The Role of the Chairman in the Socialization of the Family Planning Program in Pampang Kelurahan Siring Samarinda River. *eJournal of Communication Science*, 2013, Vol. 1(2), 95-108. https://ejournal.ilkom.fisip-unmul.ac.id/