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The Effect of The Availability of Sports Facilities and Socio-Economic Conditions on Sports Participation

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A B S T R A C T

The study explores the relationship between the availability of sports facilities and socio-economic conditions on community participation in sports in Indonesia, where sports participation remains relatively low despite existing factors. Utilizing secondary data from the Badan Pusat Statistik (BPS) website, the variables considered include sports facilities, household expenditure on food, road conditions, school participation status, and internet access. Employing an ex post facto method and processed through SPSS version 25 using Multiple Regression Analysis, the findings reveal that 70% of the variance in sports participation can be attributed to the availability of facilities and socio-economic conditions, with the remaining variance influenced by external factors. The ANOVA results indicate a statistically significant model (F value < α = 0.05) for the collective impact of these variables on sports participation. Individually, all variables except school participation status show a statistically significant effect. These insights aim to guide policymakers in planning and designing effective sports policies to enhance sports participation in Indonesia.

A R T I C L E   I N F O

1. Introduction

Sports participation is defined as the active participation of physical activities in spare time that are recreational, competitive, and aimed at health and fitness (Borgers, 2016). With sports participation, it will have an impact on improving public health (Lee et al., 2016). Regular exercise participation can reduce mortality and prevent various dangerous diseases, such as cardiovascular disease, hypertension, and diabetes mellitus (Wen et al., 2011). Sports participation is not only beneficial for people's physical health but more than that (Plato in Gould & Carson, 2008). Participation in sports can develop Positive Youth Development (Turnnidge et al., 2014). Positive outcomes of sports participation have an impact on the development of leadership skills, increased self-esteem and increased academic achievement (Fraserthomas et al., 2005). Not only that, sports

The Effect Of The Availability Of Sports Facilities And Socio-Economic Conditions On Sports participation has also been found to be beneficial for reducing mental illnesses such as depression and anxiety (Mammen & Faulkner, 2013), and increasing selfconfidence, energy levels, sleep quality, and the ability to concentrate (Bull et al. and Sustrans in VicHealth, 2013). 2010).

Article 17 of the National Sports System Law has explained that the scope of sports consists of 3, namely: educational sports, recreational sports, and achievement sports. This means that sports are not just for achievement. However, what is happening today in Indonesia is that the meaning of sports is still somewhat elitist, namely around athletes, training, participating in competitions, champions/medals, rankings and bonuses. This phenomenon is confirmed by data in 2015 showing that the Indonesian population aged 10 years and over who exercised was only 27.61 percent in the past week (BPS, 2015). This means that out of 10 people over 10 years of age, only 2 to 3 people have exercised in the past week. This fact certainly gives a clear picture that the essence of sport has not been achieved in accordance with its optimal competency coverage.

Based on other data released by BPS in 2015, the participation rate in sports when viewed in each province illustrates a quite striking difference. DKI Jakarta Province, for example, as the national capital, has a population participating in sports reaching 38.61 percent. This figure is the highest compared to other provinces. This is inversely proportional to the province of Papua which is the province with the lowest participation of the population in sports with a percentage of 16.13 percent (BPS, 2015).

This phenomenon is of course the urgency of the problem of sports participation in Indonesia. So it is necessary to examine more deeply by looking for factors that can support increased sports participation. One of the factors that have an impact on sports participation is environmental factors (Vic Health, 2010: 5). Research states that sports facilities are the main environmental resources that encourage a person to participate in sports (Humpel et al., 2002; Powell et al., 2006; Scott et al., 2007). Because sports facilities are a basic requirement for sports activities.

The disparity in the level of sports participation between provinces that occurs in Indonesia is also caused by differences in the quantity and quality of sports facilities, of course also due to the spatial aspects of the socio-economic factors of the community (Beenackers et al, 2011). In a more specific finding, Godbey et al (2010), there are several structural constraints that are very influential in people's access to exercise, one of which is the financial condition of the community.

Financial conditions as according to (Humphreys et al.,2006) greatly influence sports participation. Households with greater availability of financial resources will be able to spend their money on recreational needs, including the need to exercise. In contrast, people with lower incomes have limited interest in sports.

Previous research using correlation and regression methods explained that the high level of sports participation was influenced by the level of provision of facilities and socio-economic status in Australia (Eime et al., 2017). This shows that both sports facilities and socio-economic conditions

must be considered in increasing sports participation. Other studies explain that neighborhoods with low The ASEAN Journal of Sport for Development and Peace socioeconomic status and middle socioeconomic status have far fewer resources than neighborhoods with high socioeconomic status. This causes individuals from lower socioeconomic status environments to have limited ability to control their physical activities in the face of inaccessible environments.

Based on these things, it is important to conduct research on the impact of the availability of sports facilities and socio-economic conditions on sports participation. With this research, it is hoped that it can reveal exactly how the relationship between community participation in sports and community socioeconomic problems. Furthermore, this research is expected to provide relevant information in accordance with the spatial characteristics of each province in Indonesia.

2. Methods

This research uses ex post facto method. This method seeks to explain or find out how the variables in the study are related or influential (Sukmadinata, 2011) aiming to find the cause of an event or phenomenon that results in changes in the independent variables as a whole and has occurred. Cause- and-effect relationships that are not manipulated or treated by researchers (Sappaile, 2010). So this method was chosen because it is very appropriate and useful for explaining cause-and-effect relationships in accordance with the phenomenon that occurs, namely sports participation in Indonesia.

The sports facilities variable (X1) is represented by the number of sports facilities in each province. Meanwhile, the socio-economic variable is represented by household expenditure for food needs (X2), good road conditions (X3), school participation status (X4) and the percentage of households that have internet access (X5).

2.1 Population & Sample

The population in this study is the Indonesian people. The sample selection technique used for district/city estimation is the two-stage one-phase stratified sampling method (BPS, 2018), with the following stages:
1) Stage 1: Selecting 25 percent of the Ordinary Census Blocks from the 2010 Population Census by Probability Proportional to Size (PPS), with the size of the number of households in each strata.
2) Stage 2: Selecting a total of 30,000 Census Blocks as a result of the first stage of selection according to a systematic allocation in each urban/rural welfare strata in each district/city. The result is the 2018 Census Block Sample List.
3) Stage 3: Selecting 10 updated households in the selected Census Block by systematic sampling with implicit stratification according to the highest education level completed by the Head of the Household. The result is a List of Household Samples in 2018.

2.2 Instrument

The instrument in this study is the researcher himself who conducted a documentation study by collecting secondary data on the number of sports facilities,

socio-economic conditions and community participation rates in sports for each province in Indonesia obtained from the Badan Pusat Statistik (BPS) in 2018.

2.3 Procedure

The research procedure includes several stages, namely: (1) Collecting secondary data for each variable from the official website of Badan Pusat Statistik (BPS) namely www.bps.go.id, (2)

processing data through SPSS software, (3) Interpretation of research results, (4) Drawing conclusions, (5) Presentation of implications. Data Analysis

The data in this study were analyzed using SPSS version 25 software using multiple regression analysis. Regression analysis is defined as an analysis of the dependence between the dependent variable and the independent variable to make estimates or predictions (Lains, 2003). So that multiple regression analysis is appropriate to be used to test how the dependence and influence between the variables in this study is

3. Results

The data must be tested for classical assumptions first. This test includes the normality test, multicollinearity test and heteroscedasticity test.
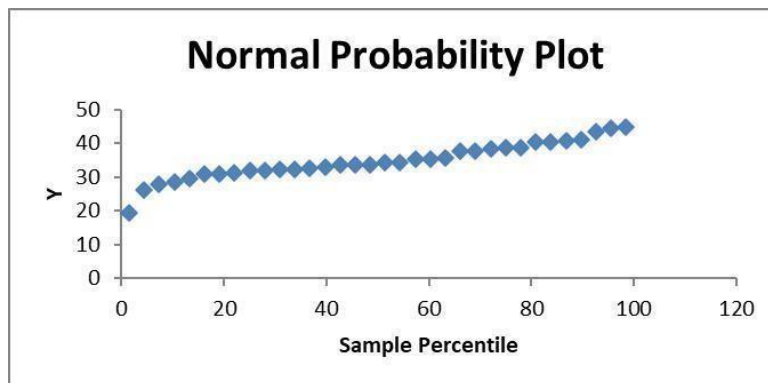
Figure 1. Normality test results

The normality of the data in the study can be determined through the spread of data (points) on the Normal Probability Plot of Regression Standardized Residual from the dependent variable (Econometrics, 2004). In order to avoid bias, the residual data must be normally distributed. In Figure 1 it can be concluded that the data is normally distributed because the conditions for normality are met, namely the data spreads around the diagonal line and follows the direction of the diagonal line.

Table 1. Multicollinearity test results

Model 1	Collinearity Statistics	
	Tolerance	VIF
Fasilitas Olahraga	.862	1.159
Pengeluaran Rumah Tangga untukKebutuhan Makan	.429	2.330
Kondisi Jalan Baik	.837	1.194
Status Partisipasi Sekolah	.960	1.042
Akses Internet	.425	2.354

Furthermore, the multicollinearity test was carried out using data processing on Collinearity Diagnosiswith the results: if the tolerance value of the independent variable was > 0.10 and the VIF (Variance Influence Factor) value < 10, it indicated that there was no multicollinearity (Ghozali, 2018). A good regression is data that is free from multicollinearity. The results of the Variance Inflation Factor (VIF) 25 in the table above, show that there is no multicollinearity in the independent variables because theVIF value is < 10 and the tolerance value is > 0.10

Table 2. Heteroscedasticity Test Results

Model 1	t	Sig
(Constant)	-.887	.383
Fasilitas Olahraga	1.158	.257
Pengeluaran Rumah Tangga untuk KebutuhanMakan	.869	.392
Kondisi Jalan Baik	.505	.617
Status Partisipasi Sekolah	.370	.714
Akses Internet	-.175	.863

In the last stage of the classical assumption test, the heteroscedasticity test can be performed using the Glejser test. There is no heteroscedasticity in the data indicating a good regression model. Based on the results of the heteroscedasticity test in table 2, it is concluded that the data does not contain herteroscedasticity because the significance value of all independent variables is grea ter than 0.05.

In the classical assumption test listed above, the data obtained has met the classical assumption test which consists of normality, multicollinearity, and heteroscedasticity tests. Then the analysis can be continued to the next stage.

Tabel 3. Multiple Regression Test Result

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate	Sig F Change
1	.863a	.744	.70	3.00607	0,000

The F test or stimulant test is carried out to see whether or not the independent variables influence the dependent variable together. Based on the table above, the Adjusted R Square value is 0.70 or (70 percent). This shows that 70 percent of the diversity of the community participation variable in sports can be explained by the variable availability of facilities and socio-economic conditions, while the remaining 30 percent is by variables outside the model. In addition, the F statistical value in the Anova table shows the number $<\alpha = 0.05$, so it can be concluded that simultaneously the influence model between the availability of sports facilities and socio-economic conditions on the public participation rate in exercising is statistically significant

Table 5. Partial Multiple Regression Test

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-25.656	15.753		-1.629	.115

X1	132.886	49.288	.278	2.696	.012
X2	.389	.181	.313	2.146	.041
X3	.082	.039	.223	2.131	.042
X4	-.065	.106	-.059	-.609	.548
X5	.417	.070	.874	5.959	.000

a. Dependent Variable: Sport Participation

The t test or partial test is carried out to see whether there is any influence of each independent variable on the dependent variable partially. Partially, each variable included in the model also has a statistically significant effect (sig value <0.05)except for the school participation status variable (sig value> 0.05).

4. DISCUSSION

Simultaneous data analysis shows that the availability of sports facilities and socio-economic conditions together affect the community participation rate in sports in Indonesia. Higher economy and have abundant availability of sports facilities (Eime et al., 2017). This statement explains that to increase participation in sports is not only considering one supporting factor, but will be much effective when considering other factors. Extensive empirical analysis from the government and policy makers through sports participation policies must target a broad, planned, programmed and sustainable series of activities in order to create effective targeted policies to increase sports participation.

The partial hypothesis test results show that sports facilities (X1) actually have a positive effect on sports participation. (Sallis & Owen., 2015) explain:

> The most powerful intervention to change individual behavior in physical activity is to ensure sports facilities that do not only maintain safety and comfort, because facilities must be made as attractive as possible for the community. This can be done by educating the surrounding community to participate in sports which can be done directly or through the mass media.

Thus, the development of comprehensive sports facilities in each area coupled with the existing sportsfacilities must be designed as well and as attractive as possible and managed according to the standards that have been set in order to be optimal in increasing sports participation.

Household expenditure for food needs (X2) partially has a positive effect on sports participation (Y). Usually, the level of income will be directly proportional to the level of consumption including the consumption of food needs. Prosperous income conditions will increase the ability to buy various household needs that are increasingly diverse, then the lifestyle becomes wasteful and demands moregood quality (Rathama & Mandala, 2008). This result is supported by research that explains that higherhousehold income appears to be correlated with an increased likelihood of a person participating in sports (Downward and Riordan, 2007; Humphreys and Ruseskim 2009). So it is not surprising that low-income families often ignore participation in sports, because they face heavier financial burdens (Bittman, 2002).

Good road conditions (X3) partially have a positive effect on sports participation (Y). Road conditions are one of the environmental factors that support sports participation, in other words, the better the accessibility in the environment, the more sports participation will be. Several studies clarify that individual participation in physical activity can be influenced by accessibility to

sports facilities (Kim and Kosma, 2012; Limstrand and Rehrer, 2008; Troped et al., 2003; Eriksson et al., 2012).

School participation status (X4) partially has no effect on sports participation (Y). As we already know that in schools there is physical education which is part of the educational process. Of course physical education has potential long-term benefits, particularly its ability to develop habits of regular physical activity that last throughout adult life. In other words, school participation should be able to contribute to sports participation. So far, however, several studies examining the extent to which physical education can influence average sports participation have weak to moderate correlations. It is not clear to what extent these data can be extrapolated to infer the impact of physical education programs on adult lifestyles (Shephard and Trudeau, 2000). So, further research can reveal more deeply about the influence of physical education on sports participation in Indonesia.

Internet access (X5) partially has a positive effect on sports participation (Y). Relevant previous research explains that many new things that can be accessed on the internet including improving the quality of life from sports through the internet (Tyler et al., 2018). By using internet media that can be accessed, one of which is using social media such as Instagram, Whatssapp, Youtube and others, the public will more easily understand how sports should be done so that an effective and efficient understanding will be created. Internet access also can help maintain or renew contact with friends (Kearns and Whitley, 2019). This can help individuals to communicate with their friends and then plan and carry out sports activities together.

5. Conclusion

The conclusion of this study is the availability of sports facilities and socioeconomic conditions have a significant effect on the number of people's participation in sports. Partially, each variable in this study has a statistically significant effect, except for the school participation status variable. The researcher hopes that the results of this study can be something new for policy makers in development planning and designing sports policies, especially in increasing sports participation. Naturally, the quantity of facilities spread across all regions in Indonesia must be built and reproduced. In addition, the quality of existing facilities must be considered through good planning, procurement, utilization, maintenance, and supervision so that the sports facilities remain standardized. Sports facilities that will be built and those that are already available to the community need to be designed so as not to require the community to spend a lot of money so that it will have an impact on the fulfillment of the rights of all levels of society to be able to get equal opportunities in exercising. Furthermore, the distribution of good road conditions throughout Indonesia because road conditions will facilitate accessibility to sports facilities. Policy makers can also

review and evaluate more deeply with the Education Office regarding the role of schools, how sports facilities are available in schools and Physical Education as a curriculum in schools because Physical Education has the potential as a means to develop habits of regular physical activity that lasts throughout life. adults. Finally, policy makers can use the internet as a means to increase public participation in sports, such as making sports applications and conducting recreational sports activities that are disseminated through the internet. Thus, in an effort to increase community participation in sports, it is not only paying attention to one of the supporting factors, but it will be far more effective when paying attention to other factors as well. For further research, it should be able to examine more deeply by using other variables regarding what factors have the most influence on increasing sports participation in Indonesia.

6. Authors' Note

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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