

## The economic impact of sports events Walikota Solo cup 2022

**Bambang Wijanarko<sup>1abcd</sup>, Rumi Iqbal Doewes<sup>1f</sup>, Islahuzzaman  
Nuryadin<sup>1cd</sup>, Sapta Kunta Purnama<sup>1de</sup>, Ismaryati<sup>1ef</sup>**

<sup>1</sup>Sport Faculty, Universitas Sebelas Maret, Jl. Ir. Sutami No.36, Kentingan, Kec. Jebres,  
Kota Surakarta, Jawa Tengah 57126, Indonesia

Received: 8 February 2023; Revised: 10 February 2023; Accepted: 12 February 2023;  
Available online: 12 February 2023.

### Abstract

Organizing sports events have played a role in the local community's economy. The research purpose was to estimate how the implementation of the 2022 Solo Mayor Cup sporting event will play a role in the local community's economy, such as output, added value, income creation, and job creation. The study used a quantitative descriptive study with a survey design. A total of 1,470 visitor surveys were generated (426 local visitors and 1,044 non-local visitors). The study used a quantitative descriptive study with a survey design. A total of 1,470 visitor surveys were generated (426 local visitors and 1,044 non-local visitors). The results show that the 2022 Solo Mayor Cup sporting event created an average output of 1,109.15 thousand rupiahs, an average income of 124.40 thousand rupiahs, and an average gross value added of 262.40 thousand rupiahs, and an average workforce can be absorbed 207 people. The existence of the 2022 Solo Mayor Cup sporting event can increase the host economy due to relevant direct expenditures from sports bodies for wages and due to visitors spending on accommodation, transportation, food and beverages, and shopping. Apart from that, the 2022 Solo Mayor Cup sporting event also created new job opportunities, increasing household income. The Walikota Solo Cup 2022 has a positive economic impact on the people of Solo.

**Keywords:** economic impact, sport event.

**Authors' contribution:** a – Preparing concepts; b – Formulating methods; c – Conducting research; d – Processing results; e – Interpretation and conclusions; f - Editing the final version

### INTRODUCTION

Sporting events are commonly used to promote local and regional economic development. This is because it is widely recognized that sporting events can generate economic impact by attracting visitors to an area to participate in or observe sporting events (Li & Jago, 2013). Sports events can be an economic stimulus for the government, so the government supports sporting events. Support from the government includes funding for sports events and infrastructure as well as subsidies for competing teams. The large number of public funds invested in supporting sporting events has

resulted in an economic impact analysis (Rolfe, 2019). In sports management, sporting events provide economic benefits and can be estimated through economic impact studies (Lee et al., 2010). Sports facilities are important assets in society because they provide important infrastructure for a series of sporting events. There are economic benefits associated with sporting events, and the benefits will be greater if the involvement of people participating in sporting events is higher. Some of the benefits that local economies can derive from sporting events may include relevant direct expenditures from sporting bodies on wages, infrastructure, and promotions; visitor expenses for accommodation, transportation, food and beverages, and shopping; public sponsorship and private investment in infrastructure such as new hotels so that the presence of the sporting event will increase the economy of the sporting events host (Greig & McQuaid, 2004).

In 2022, the Mayor Solo Cup will be held in Manahan, Solo. Economic growth and development is Solo's main goal in hosting the Solo Mayor Cup. Economically, income can be generated from the money spent by various numbers of participants, both visitors and athletes and officials, besides that, income is also obtained from the event's income through ticket sales. The research results have shown that organizing sporting events can increase local economic activity, which is related to investment in infrastructure and boosting consumption flows. Research states that based on growth model analysis, it was shown that a higher level of economic growth in the host country (Sterken, 2006). The concept of economic impact is that local communities can benefit if expenditures from non-local residents are included in addition to the local economy. The research results show that in 2011, sporting events contributed to the economy by around \$1 billion to \$2 billion more, which was directly felt by the regional community (Connaughton & Swartz, 2014). This shows that the organization of sporting events has played a role in the economic field of the local community.

However, the extent of this claim of economic advantage is only sometimes accepted, with many questioning the economic viability of hosting the event. For example, Lee (2019), who expressed a critical assessment of Pyeongchang post-Olympic, shows that winter sports competitions tend to damage the natural environment around the Olympic venues and do not develop into sports communities because of the special equipment and skills needed. Using an evaluation of economic impact analysis with an input-output model, this study aims to estimate how the implementation of the 2022 Solo Mayor Cup sporting event plays a role in the local community's economy, such as output, added value, income creation, and job opportunity creation.

## **METHOD**

This study used a quantitative descriptive study with a survey design. This study used a studi deskriptif kuantitatif with a survey design. Respondents were selected randomly at the match location. The survey was conducted during the event, which was for 4 days. From 4 days of the survey, 1,470 visitors were generated (426 local visitors and 1,044 non-local visitors). The survey results per day are described in table 1.

**Table 1.** Visitor survey results in data.

Visitor	Day				Total	%
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>		
Local	89	102	112	123	426	29%
Non-Local	186	258	273	327	1,044	71%
Total	1,470					100%

The open-ended questionnaire requires the respondent to fill out the questionnaire according to his wishes.

The questionnaire for visitors contains data on visitors' residences and expenses, which include food and drinks (heavy meals, snacks, Solo specialties, drinks), trade (clothing, shoes, sandals, bags, hats, souvenirs/knick-knacks events), accommodation (hotels, apartments), transportation (gas stations and vehicle parking, public transportation costs), sports (event entrance fees), and culture (Solo tourist entrance fees) (appendix).

Data were collected by surveying visitors from the first to the last day of the Walikota Solo Cup 2022 for 4 days, namely on 26-29 January 2022. Visitors were asked about their expenses while at the Walikota Solo Cup 2022 and asked to fill out a questionnaire prepared by researchers and immediately record their expenses to reduce bias.

To estimate the economic impact of the Walikota Solo Cup 2022, researchers used data from visitor surveys collected during the event. Researchers used input-output analysis with the Leontief matrix (multiplier coefficient matrix) to estimate output, added value, income, and employment opportunities (Wirawan, 2016).

## RESULT

In order to calculate the economic impact of a sporting event, the personal visitor expenditure of each economic sector is required. Table 2 shows the average visitor spending during the 2022 Solo Mayor Cup sporting event.

**Table 2.** Visitor spending

No	Sector	Final Demand (Ribu Rp) (Thousand Rp)
1	Trade	335,09
2	Accommodation	1035,59
3	Food and Drink	118,95
4	Sport	21,10
5	Transportation	48,89
6	Culture	14,76
Total		1574,38
Mean		262,40

Goods and services produced (domestic products), apart from being used by the production sector in the process (fulfilling intermediate demand), are also used to meet final demand or final consumption. In the input-output model, output has a reciprocal relationship with the final demand, the amount of output produced depends on the final demand. In other words, the addition of final demand will impact additional output, added value, income creation, and several other components, such as labor. The emergence of final demand will stimulate producers to produce and increase output. For the production process, in addition to the need for raw materials, labor is also needed. If the need for production commodities

increases by itself, the added value will increase as a reward for the production factors that have been used.

The multiplier coefficient matrix  $(I-A)^{-1}$ , often called the output multiplier matrix in the I-O table, is very useful for various multiplier impact analyses (multiplier effect or multiplier impact). The multiplier effect is defined as an impact that occurs directly or indirectly on various economic activities in the country as a result of changes in exogenous economic variables (variables or components of final demand). The multiplier effect can be calculated to estimate output, value-added, income, and employment.

Table 3 presents data regarding the influence or impact of each sector on output, added value, income, and employment opportunities.

**Table 3.** Summary of Macroeconomic Effects (in thousand rupiahs)

Effect	Sub Effect	Sport Tourism Demand						Total
		Trade	Accommodation	Food and Drink	Sport	Transportation	Culture	
Effect	Output	3133,09	1224,92	1006,67	1140,21	119,07	30,91	6654,88
	Gross value added	335,09	1035,59	118,95	21,10	48,89	14,76	1574,38
	Income	264,73	25,69	115,71	123,29	216,53	0,45	746,39
	Employment Opportunity	500,45	234,75	111,14	82,77	297,25	20,64	1247,00

Based on tables 2 and 3, it can be explained that overall with a final demand of 1.574,38 thousand rupiahs, it will create an output of 6.654,88 thousand rupiahs, with an output creation ratio of 77,5553 which means every 1.000 rupiahs of expenditure will create an output of 77.555 rupiahs. Creating a gross added value of 1.574,38 thousand rupiahs, with a ratio of gross added value creation of 6,0000, which means that every 1.000 rupiahs of spending will create a gross added value of 6.000 rupiahs. Creating an income of 746,39 thousand rupiahs, with an income creation ratio of 12,09, means that every 1.000 rupiahs of spending will create an income of 12.089 rupiahs. Creating job opportunities for 1.247 people.

Furthermore, it is explained that the average economic impact of the 2022 Mayor's Cup sports event for the people of Solo is presented in table 4.

**Table 4.** Average economic impact on output creation, income, gross value added, and employment opportunities

Economic Impact	Average	Average Creation Impact on Final
	Multiplier Rate	Demand
Output	8,20	1109,15
Income	2,01	124,40
Gross Value Added	1,00	262,40
Employment Opportunity	2,34	207,83

Based on table 4, it can be explained that the 2022 Mayor's Cup sports event has an average multiplier impact on output creation of 8,20; income creation of 2,01; gross value added creation of 1,00; and job creation of 2,34, which means that if there is an additional 1.000 rupiah final demand at the 2022 Mayor's Cup sports event, on average it will increase the output of all sectors by 8.200 rupiahs, increase the income of all sectors by 2.010 rupiahs, increase gross added value by 1.000 rupiahs, and creates job opportunities with a workforce that 234 people can absorb. In addition, with an average final demand of 262,40 thousand rupiahs, it is capable of creating an average output of 1.109,15 thousand rupiahs, creating an average income of 124,40 thousand rupiahs, creating an average gross value added of 262,40 thousand rupiahs, and the average workforce that can be absorbed is 207 people.

## DISCUSSION

History reveals that sporting events have played an important role in the economic development of society. When an area hosts a sports competition, large amounts of new money flow into the host economy and the community surrounding the competition host because sports fans descend on the city's hotels, restaurants, and businesses to cash out their money (Kour, 2019). Economic effects arise due to the influx of funds from various types of participation, one of which is visitors, who can be defined as spectators, supporters, or newcomers (Souza et al., 2019). The economic contribution study includes spending by local visitors and non-local visitors. The economic impact can be more felt when the regional economy is generated by new money from non-local visitors (outsiders)

(Souza et al., 2019). To calculate the magnitude of the economic impact of the 2022 Solo Mayor Cup sporting event, each visitor's expenditure is required. In line with this, calculating the economic benefits of hosts related to sporting events is done by calculating the average expenditure per spectator (Amador et al., 2017). It aims to estimate the impact of the ongoing sporting event. Hosting a major sporting event aims to create a positive economic effect (Lin & Lu, 2018). Based on the calculation of net expenditure related to sporting events, it benefits event organizers' economy, increasing demand for goods and services and large consumption from spectators causing an increase in production at suppliers (Amador et al., 2017).

The economic effect for a region usually comes from consumption by visitors in restaurants/food stalls, shopping centers, hotels, sports, transportation, and other local businesses during the event, increasing tourism after the event. The results of this study have shown that the 2022 Solo Mayor Cup sporting event has an economic impact on local Solo residents in several industrial sectors such as trade (retail shopping), accommodation, food and drink, sports, transportation, and regional tourism as income for the competition hosts. The results showed that the average multiplier impact on output creation was 8,20; income creation of 2,01; gross value added creation of 1,00; and job creation of 2,34, which means that if there is an additional 1.000 rupiah final demand at the 2022 Solo Mayor Cup event, on average it will increase the output of all sectors by 8.200 rupiahs, increase the income of all sectors by 2.010 rupiahs, increase gross added value by 1.000 rupiahs, and creates job opportunities with a workforce that 234 people can absorb. In addition, with an average final demand of 262,40 thousand rupiahs, it is capable of creating an average output of 1.109,15 thousand rupiahs, creating an average income of 124,40 thousand rupiahs, creating an average gross value added of 262,40 thousand rupiahs, and the average workforce that can be absorbed is 207 people.

On the other hand, sporting events have an economic impact on host tourism. Tourism is considered a growth catalyst that generates income

(Ogonu & Didia, 2019). Sporting event tourism is a growing industry with the economic implications of the impact of travel related to sporting events on the destination of hosting competitions. One form of tourism that contributes to the growth of tourism itself is a travel and sports-related tourism (Njoronge et al., 2015). More and more people are participating in sporting events both as spectators and supporters because the experiences they gain at these events impact their motivation to travel by choosing tourist destinations in the host (Müller et al., 2016). The results showed that the final demand for the cultural sector of 14,76 thousand rupiahs was able to create an income of 0,45 thousand rupiahs, with an income creation ratio of 0,0303 which means that every 1.000 rupiahs spent on the cultural/tourism sector will create an income of 30 rupiahs.

## **CONCLUSION**

Research shows that the 2022 Solo Mayor Cup sporting event creates an average output of 1.109,15 thousand rupiahs, an average income of 124,40 thousand rupiahs, and an average gross value added of 262,40 thousand rupiahs, and an average workforce that can be absorbed 207 people. The existence of the 2022 Solo Mayor Cup sporting event can increase the host economy due to relevant direct expenditures from sports bodies for wages and due to visitors spending on accommodation, transportation, food and drink, and shopping. Apart from that, the 2022 Solo Mayor Cup sporting event also created new job opportunities, increasing household income.

## **ACKNOWLEDGMENT**

The authors thank the Ministry of Education and Culture, Republic of Indonesia, for the financial support of this research. The authors also gratefully appreciate Universitas Sebelas Maret through Hibah LPPM 2022.

## **REFERENCES**

Amador, L., Campoy-Muñoz, P., Cardenete, M. A., & Delgado, M. C. (2017). Economic impact assessment of small-scale sporting events using Social Accounting Matrices: an application to the Spanish Football

- League. *Journal of Policy Research in Tourism, Leisure and Events*, 9(3), 230-246.
- Connaughton, J. E., & Swartz, C. (2014). The Economic Impact Of Sports And Sporting Events On The Charlotte Metropolitan Statistical Area (MSA) Economy. *Journal of Business & Economics Research (JBER)*, 12(3), 215–230.
- Greig, M. S., & McQuaid, R. W. (2003). The economic impact of a sporting event: a regional approach. In *43rd European Regional Science Association Congress*.
- Kour, P. (2019). Sports events and development of local economy: A case study of IPL match in Mohali.
- Lee, S., Harris, J., & Lyberger, M. (2010). The economic impact of college sporting events: A case study of division IA football games. *Event Management*, 14(2), 157-165.
- Lee, J. W. (2019). A winter sport mega-event and its aftermath: A critical review of post-Olympic PyeongChang. *Local Economy*, 34(7), 745–752. <https://doi.org/10.1177/0269094219889608>
- Li, S. N., & Jago, L. (2013). Evaluating economic impacts of major sports events - A meta analysis of the key trends. *Current Issues in Tourism*, 16(6), 591–611. <https://doi.org/10.1080/13683500.2012.736482>
- Lin, H. W., & Lu, H. F. (2018). A longitudinal assessment on the economic effects of hosting major sporting events. *Applied Economics*, 50(56), 6085-6099.
- Müller, A. N. E. T. T. A., Bíró, M. E. L. I. N. D. A., Ráthonyi-Odor, K. I. N. G. A., Ráthonyi, G. E. R. G. E. L. Y., Széles-Kovács, G. Y. U. L. A., Boda, E. S. Z. T. E. R., ... & Andras, A. L. M. O. S. (2016). Economic impacts of sports events. *Studia Universitatis Babeş-Bolyai Educatio Artis Gymnasticae*, 61(4), 85-95.
- Njoroge, J. M., Buyeke, E., & Akama, J. (2015). Challenges to sustainable sports tourism development in a non-metropolitan region in Kenya: A case of Iten township.
- Ogonu, G. C., & Didia, J. U. D. (2019). Tourism development as a catalyst for sustainable economic growth in Nigeria (2000-2014). *International Journal of Economics and Business Management*, 5(2), 31-42.
- Rolfe, J. (2019). Simple economic frameworks to evaluate public investments in sporting events in regional Australia. *Economic Analysis and Policy*, pp. 63, 35–43.
- Souza, T. V. S. B, Thapa, B., Rodrigues, C. G. D. O., & Imori, D. (2019). Economic impacts of tourism in protected areas of Brazil. *Journal of Sustainable Tourism*, 27(6), 735-749.
- Sterken, E. (2006). Growth impact of major sporting events. *European Sport Management Quarterly*, 6(4), 375–389.

Wirawan, N. (2016). *Matematika Ekonomi Lanjutan*. Universitas Udayana: Keraras Emas.