

Sustainable Event Tourism: Perceived Socio-Economic Impacts of Mindanao Inter-University Games in Southeastern Philippines

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Abstract

Event tourism is a growing driver of social and economic development, especially in developing countries. However, its impact on host communities, particularly in subnational areas in the Philippines, remains underexplored. This study examined local perceptions of hosting the Mindanao Association of State Tertiary Schools (MASTS) Games 2022, an inter-university sports and socio-cultural event held in Mati, Davao Oriental, the Philippines. The study analyzed survey data through a descriptive-correlational approach. This was further supported by a qualitative inquiry into the claims, concerns, and issues surrounding the event, conducted through a focus group discussion (FGD) with 12 participants. A proportionate stratified random sampling method ensured representation across community sectors. The Event Support Model (ESM) was used to assess factors influencing residents' support. Findings from 655 respondents revealed strong community support driven by perceived social, economic,

and image-related benefits, while social costs negatively influenced support. Key factors included social benefits, image enhancement, economic gains, and both economic and social costs. Among these, image and social benefits were the most significant. The study concluded that hosting similar events could bring socio-economic advantages if guided by a sustainable tourism development plan aligned with the ESM framework. Recommendations include regulating prices, improving waste management, addressing traffic issues, and conducting further research on long-term economic impacts on tourism and local businesses.

Keywords: Event support model, Davao Oriental higher education, sports, state tertiary schools, sports, tourism, Mindanao

Introduction

Event tourism has emerged as a dynamic sector within the broader tourism industry, where travel is primarily motivated by participation in or observation of events (Akhundova, 2023). Research in this field has expanded to include factors influencing attendance, the economic and social effects on host communities, and overall tourist experiences (Xiang et al., 2020). Prior studies have identified key antecedents that drive these benefits, offering practical insights for smaller cities aiming to use events strategically as catalysts for local development (Norman & Schofield, 2025).

Building upon this, sustainable event tourism emphasizes the balance between maximizing economic and social gains and minimizing environmental and societal costs (Getz & Page, 2019). Studies on mega-events such as the Giro d'Italia and Tour de France illustrate how major sporting occasions can revitalize local economies and promote responsible tourism. However, achieving sustainability requires transparent resource management, innovation, and long-term strategies that align economic goals with environmental stewardship (Sardi et al., 2025; Heasley et al 2025). These objectives can only be realized through collaborative efforts among organizers, communities, governments, and businesses, supported by effective policies, technology, and behavioral change (Gössling & Scott, 2020). The multifaceted impacts of hosting large-scale events, such as economic, social, and environmental, have become a prominent focus of academic inquiry (Atci et al., 2016).

In Asia, increasing attention has been given to integrating renewable energy and carbon management in large-scale events to mitigate environmental impacts. For example, the Suranaree Agricultural Fair 2025 in Thailand revealed that over 67% of carbon emissions were associated with food consumption and participant travel, emphasizing the need for targeted emission-reduction strategies and systematic data collection to achieve carbon neutrality in event management (de Cadenet et al., 2025). Similarly, global events such as the Olympics and the FIFA World Cup have demonstrated how hosting large-scale gatherings can drive urban renewal and infrastructural growth. The 2012 London Olympics spurred redevelopment in East London (Portsmouth Business School, 2024), while the 2008 Beijing Olympics enhanced public infrastructure and improved cross-cultural relations (Singh & Zhou, 2016). Although these events often generate economic optimism, public support depends on whether the perceived benefits outweigh the costs, as issues of corruption, congestion, and disruption can undermine trust (Maciejewski, 2019).

Despite these global insights, sustainable event tourism at the subnational level in the Philippines remains underexplored. Most existing studies center on international mega-events, leaving a research gap in understanding the socio-economic and cultural implications of regional competitions such as the Palarong Pambansa and the State Colleges and Universities Athletic Association (SCUAA) Games. Although the scale of these two events is incomparable to international mega-events, localized insights at the subnational context are necessary to advance sustainable event tourism while learning from global experiences. These events contribute not only to youth empowerment and institutional pride but also to community engagement and local economic stimulation (Tan et al., 2015; Fernandez, 2022). Yet, their long-term social, cultural, and environmental impacts remain insufficiently studied.

Understanding local perceptions and attitudes toward event hosting is therefore crucial for advancing sustainable event tourism. Residents' support is shaped by their perceived benefits, emotional solidarity with visitors, community attachment, and trust in event organizers. The case of the European Capital of Culture (ECoC) project in Novi Sad, for instance, demonstrates that positive sustainability perceptions and emotional connections with tourists foster local support for cultural events. Community attachment and brand trust also serve as key predictors of residents' endorsement (Šagovnović et al., 2022). Hence, incorporating community perspectives into event planning can strengthen public participation and sustain long-term tourism initiatives.

Against this backdrop, the Mindanao Association of State Tertiary Schools (MASTS) Games 2022, held in Mati City, Davao Oriental, represents a significant inter-university sports and cultural event in the region. The event featured thousands of delegates competing in various athletic and cultural activities and prompted major local developments, including road rehabilitation, tourism site enhancements, and the construction of a university oval (Davao Oriental Provincial Government, 2022). Beyond its athletic and cultural showcase, the MASTS Games symbolized Mindanao's unity and resilience through inter-institutional collaboration and community engagement.

This study examines residents' perceptions and support for the MASTS Games 2022 to provide insights into the sustainability of regional event tourism. Grounded in Social Exchange Theory (SET), the study explores how residents evaluate the event's perceived benefits and costs (Gursoy & Kendall, 2006; Waitt, 2003). Specifically, it investigates whether perceived socio-economic and cultural gains outweigh the potential drawbacks such as traffic congestion, noise, and rising prices (Gursoy et al., 2004). By analyzing the socio-economic impacts of the MASTS Games, this research aims to inform policy, enhance regional event management practices, and contribute to the broader discourse on sustainable event tourism in the Philippines.

Methods

Study Design, Setting, and Population

This study adopted quantitative and qualitative research designs to provide a comprehensive understanding of residents' perceptions and support toward the MASTS Games 2022. The quantitative phase employed a descriptive–correlational design to determine the statistical relationships and patterns among variables related to event support and perceived socio-economic impacts. This phase aimed to establish general trends and associations within the target population, thereby ensuring

representativeness and reliability of results.

Following the quantitative phase, a qualitative component was conducted to contextualize and deepen the interpretation of statistical findings. Through in-depth interviews and thematic analysis, this phase explored residents' experiences, perceptions, and concerns regarding the event. The integration of qualitative insights provided a richer, more nuanced understanding of community sentiments that numerical data alone could not capture. This design allowed for triangulation, strengthening the validity of the study's overall conclusions.

The study was conducted in the City of Mati, Davao Oriental, Philippines, the capital and only city of the province. Classified as a fifth-class component city located in the southeastern part of Mindanao, Mati served as the host of the Mindanao Association of State Tertiary Schools (MASTS) Games 2022. Data collection took place in strategically selected sites that actively participated in or were affected by the event, such as schools, commercial establishments, transport terminals, tourist attractions, public markets, and nearby residential areas. These locations were chosen to capture diverse community perspectives on the socio-economic implications of hosting the Games.

A proportionate stratified random sampling technique was utilized to ensure the inclusion of various community sectors, including small business owners, tricycle drivers, tourism stakeholders, residents, and students. Stratification based on these groups allowed for a balanced representation of participants whose livelihoods and daily routines were directly or indirectly influenced by the event.

The sample size of 655 respondents was computed using the Cochran formula, assuming a 95% confidence level, a 5% margin of error, and a 0.5 proportion of maximum variability to achieve the desired precision. Within each stratum, a random number generator was used to identify potential participants. The research team personally approached and invited the selected individuals, ensuring voluntary participation and informed consent throughout the process.

Study Variables, Instrument, and Data Collection

The study utilized a standardized survey questionnaire as the primary data collection instrument. The questionnaire was designed to measure several key variables aligned with the study objectives. The dependent variable was the level of residents' support for sports events, while the independent variables included perceived economic benefits, economic costs, social benefits, social costs, and destination image. Additionally, socio-demographic characteristics such as age, gender, educational attainment, occupation, and length of residency were collected as control variables to analyze variations in perceptions across population groups.

The survey instrument was structured into seven sections, covering: (1) socio-demographic profile, (2) support for sports events, (3) economic benefits, (4) economic costs, (5) destination image, (6) social benefits, and (7) social costs. Items were rated using a five-point Likert scale to capture the intensity of respondents' perceptions and attitudes. Prior to data collection, the questionnaire underwent content validation by three experts in tourism and social sciences to ensure construct clarity and relevance. A pilot test was also conducted with a small group of respondents to assess internal consistency, resulting in acceptable reliability coefficients across subscales.

Data collection was conducted from November to December 2022, immediately before and after the MASTS Games 2022, to capture residents' perceptions at both the anticipation and post-event stages. This timing allowed for comparative analysis of perceptual changes associated with the hosting of the event.

The fieldwork was carried out by 18 trained enumerators, composed of Bachelor of Science in Mathematics students from Davao Oriental State University (DOrSU). Prior to deployment, enumerators underwent a structured training and orientation session focused on standard interviewing techniques, ethical considerations, and uniform administration procedures. This ensured methodological consistency, minimized interviewer bias, and upheld data quality across all survey locations. All interviews were conducted in person, allowing for clarifications and reducing the risk of nonresponse bias.

Focus Group Discussion

To complement the quantitative findings and gain deeper insight into residents' perceptions, a focus group discussion (FGD) was conducted as the qualitative component of the study. The FGD aimed to explore participants' experiences, perceptions, and reflections on the socio-economic and cultural impacts of hosting the MASTS Games 2022 in Mati City.

A total of 12 participants took part in the session, representing diverse stakeholder groups, including event facilitators, coaches, student-athletes, and residents. Participants were purposively selected based on their direct involvement or firsthand experience with the event to ensure informed and contextually rich discussions.

The FGD lasted for approximately 60 minutes and was held in a neutral and accessible venue within the city to encourage open communication. With participants' consent, the discussion was audio-recorded to ensure accuracy of data capture. The session revolved around three guiding themes: claims, concerns, and issues. Claims referred to participants' positive observations or perceived benefits of the MASTS 2022, while concerns captured perceived challenges or negative aspects. Issues focused on the underlying causes and contextual factors explaining these claims and concerns, addressing "how" and "what" questions to uncover deeper meanings and implications.

The qualitative data from the FGD were transcribed verbatim and subjected to thematic analysis to identify recurring patterns and themes. This approach enabled the researchers to synthesize participants' perspectives and draw insights that complemented the quantitative results. Overall, the FGD provided a qualitative evaluation of the MASTS Games 2022 and generated practical recommendations to enhance planning, stakeholder coordination, and community engagement in future hosting bids.

Statistical Analysis

The study tested the hypothesized Event Support Model (ESM) through a structured process involving data preprocessing, modeling, and evaluation. Data preparation included handling missing values, cleaning, non-linear transformations, and normalization. Regression imputation was used to address missing data, supported by sensitivity analyses comparing it with mean and multiple imputation methods. Both full and complete-case datasets were analyzed to understand the consistency of the results and to confirm the robustness of the findings.

Modeling involved multiple linear regression (MLR), ANOVA, and t-tests. Model evaluation used R^2 and mean squared error (MSE) to assess fit. Statistical assumptions for MLR: linearity, independence, homoscedasticity, and outliers, were tested using statistical software. Normalization was applied to manage data variability and meet MLR assumptions. Unstructured data was also converted into structured formats.

The survey instrument, adapted from Atci et al. (2016), measured five constructs using a five-point Likert scale. Economic metrics remained stable pre- and post-event, supporting perceived financial impact. Open-ended questions were included, and a pilot test (n=30) confirmed internal consistency (Cronbach’s alpha = 0.91). Moreover, the adapted instrument underwent face validity assessment through evaluation by a panel of experts in tourism and social research.

The ESM used MLR to predict local support for the MASTS Games 2022. Pearson correlation confirmed linear relationships among economic benefit, economic cost, image, social benefit, and social cost. These constructs reflect both advantages (e.g., tourism, community engagement) and drawbacks (e.g., financial strain, disruptions), with image influencing regional reputation.

Thematic Analysis

Qualitative data gathered from interviews and open-ended survey responses were analyzed using thematic analysis to uncover recurring patterns and deeper insights. This process involved systematically coding the data, identifying key themes, and interpreting how these themes (Bauyot et al., 2024) relate to residents’ perceptions of and support for the MASTS Games 2022. Thematic analysis allowed the researchers to contextualize quantitative findings, explain underlying motivations and concerns, and capture nuanced community sentiments that may not have been evident through structured survey responses alone (Lim, 2024). This qualitative layer enriched the overall analysis by providing a more comprehensive understanding of how and why residents formed their views on the event.

Results and Discussion

MASTS Games 2022

Table 1.
Perceived Impact of the Mindanao Association of State Tertiary Schools (MASTS) Games 2022 by Respondents’ Profile.

Independent Variables		n	Economic Benefit	Economic Cost	Mean Image	Social Benefit	Social Cost	Support for Sports Events
Sex	Male	356	3.76	3.55	4.38	4.30	2.31	4.43
	Female	289	3.96	3.71	4.29	4.14	2.48	4.24
			$p=0.01$			$p=0.01$	$p=0.01$	$p=0.01$
			$t=-2.76$			$t=2.72$	$t=-2.73$	$t=2.57$

Age	18-24 yrs. old	201	3.92	3.81	4.33	4.29	2.52	4.41
	25-54 yrs. old	388	3.83	3.50	4.37	4.22	2.35	4.35
	55-64 yrs. old	49	3.81	3.78	4.35	4.27	2.26	4.29
	65 yrs. old and over	21	3.98	3.97	4.16	4.02	2.47	4.21
				$p=0.00$ $F=4.01$				
Sector	Small Business	93	3.87	3.49	4.29	4.15	2.54	4.09
	Tricycle Driver	150	3.65	3.19	4.61	4.56	2.08	4.63
	Tourism Sector	19	4.21	4.25	4.56	4.31	2.29	4.86
	Residents	280	3.89	3.83	4.22	4.10	2.46	4.24
	Students	113	3.97	3.68	4.32	4.18	2.53	4.38
			$p=0.01$ $F=3.17$	$p=0.00$ $F=11.60$	$p=0.00$ $F=7.71$	$p=0.00$ $F=11.09$	$p=0.00$ $F=9.21$	$p=0.00$ $F=8.10$
Marital Status	Single	335	3.94	3.69	4.37	4.26	2.44	4.40
	Married	280	3.74	3.53	4.33	4.19	2.36	4.29
	Legally Separated	9	3.15	2.67	4.22	4.06	2.09	3.92
	Widowed	16	3.92	3.83	4.31	4.39	2.26	4.42
				$p=0.01$ $F=4.13$	$p=0.01$ $F=3.78$			
Educational Background	Elementary	71	3.76	3.46	4.33	4.16	2.33	4.30
	Secondary	226	3.74	3.54	4.39	4.28	2.26	4.33
	College	320	3.93	3.67	4.31	4.22	2.49	4.36
	Post-Graduate	15	3.82	3.87	4.40	4.08	2.33	4.32
	No Educational	6	4.50	4.56	4.33	4.50	2.50	4.46
				$p=0.01$ $F=3.27$				

The Mindanao Association of State Tertiary Schools (MASTS) annually organizes sports and socio-cultural competitions among State Universities and Colleges (SUCs) across Mindanao to foster camaraderie, collaboration, and regional pride. In 2022, Davao Oriental State University (DOrSU) hosted the MASTS Games 2022, which gathered approximately 10,000 participants from 28 SUCs representing six regions: the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Zamboanga Peninsula (Region IX), Northern Mindanao (Region X), Caraga Region, SOCCSKSARGEN (Region XII), and Davao Region (Region XI).

To analyze the factors influencing residents' support for hosting the event, the study employed the Event Support Model (ESM) adapted from Atci et al. (2016), which posits that social benefits, social costs, economic benefits, economic costs, and image

are key determinants of community support. The model was contextualized for a subnational sporting event to assess how these dimensions shaped residents' perceptions of the MASTS Games 2022.

Table 1 summarizes the variations in mean scores of impact factors and event support across socio-demographic groups. Results revealed significant gender-based differences in perceptions of economic benefits ($t = -2.76$, $p = 0.01$), social benefits ($t = 2.72$, $p = 0.01$), social costs ($t = -2.73$, $p = 0.01$), and overall support for sports events ($t = 2.57$, $p = 0.01$). These findings indicate that gender substantially influenced respondents' evaluation of the event.

From a contextual perspective, these gender differences can be attributed to distinct economic roles and social responsibilities. Men tended to perceive greater economic benefits due to their participation in transportation, logistics, and event-related commerce, while women viewed the gains as more transient and were more sensitive to social costs such as congestion, noise, and household disruption. Conversely, women exhibited higher appreciation for social benefits, including enhanced community cohesion and cultural celebration. This aligns with the findings of Waitt (2003) and Gursóy and Kendall (2006), which suggest that event perceptions are shaped by individuals' socio-economic positions and daily experiences within the host community.

Significant variations were also observed across local sectors ($p < 0.01$). The tourism sector reported the highest perceived economic benefits ($M = 4.21$) and support for sports events ($M = 4.86$), highlighting that groups directly linked to tourism and hospitality experienced tangible advantages from the influx of visitors. This finding is consistent with Ferris et al. (2022) and Pandey (2023), who emphasized that event-induced economic activity often benefits business owners, transport operators, and local enterprises. Although the MASTS Games 2022 was a subnational event, its effects mirror the localized economic momentum observed in larger sporting events such as the Olympic Games (Billings & Holladay, 2011).

However, the results also suggest that social costs, while less pronounced, warrant careful consideration. Participants noted temporary inconveniences such as traffic congestion and noise, but did not associate the event with broader social issues or displacement concerns. This contrasts with findings from Fourie and Santana-Gallego (2011) and Hörne (2017), who identified significant social disruptions and inequalities in the context of mega-events. The relatively smaller scale and community-based nature of the MASTS Games may explain the absence of such adverse effects. Moreover, consistent with Ribeiro et al. (2020), residents' perceptions of social costs appeared to diminish post-event, as they reflected positively on the cultural and economic outcomes.

No significant differences in perceptions were found with respect to age, marital status, or educational attainment, suggesting that these demographic factors did not substantially influence support for the event. This may indicate that the MASTS Games had a broad community appeal, transcending demographic boundaries through its inclusive blend of athletic and cultural activities. The uniformity of perceptions across these groups implies that awareness of event impacts was shaped more by direct experience and community involvement than by formal education or personal background. This pattern reinforces the idea that local sporting events can serve as social equalizers, strengthening solidarity across diverse population segments.

Perceived Impact of MASTS 2022

Table 2 presents the residents' perceptions of the socio-economic impacts of the MASTS Games 2022. The data reveal that there is strong local support for hosting the event ($M = 4.35$), primarily motivated by expectations of economic benefits ($M = 3.86$), social benefits ($M = 4.24$), and improved city image ($M = 4.35$). Conversely, respondents expressed minimal concern regarding the event's social costs ($M = 2.40$), such as increased crime ($M = 2.11$), prostitution ($M = 1.55$), alcohol consumption ($M = 2.39$), and traffic congestion ($M = 3.06$). These findings indicate that residents generally perceive the MASTS Games 2022 as a positive experience for their community, with the perceived benefits significantly outweighing the perceived drawbacks.

This favorable perception aligns with the Event Support Model (ESM), which posits that residents' support for hosting events is primarily influenced by the perceived balance between benefits and costs (Atci et al., 2016). In this case, the perceived social and economic advantages of the MASTS Games 2022, such as strengthened community pride, enhanced local identity, and increased local business activity, appear to outweigh temporary inconveniences. Effective event management, security arrangements, and prior experience in organizing regional activities likely contributed to mitigating residents' concerns about potential social disruptions.

The findings also reinforce Prayag et al. (2013), who noted that community support tends to increase when residents anticipate tangible economic benefits from an event. Despite potential increases in commodity prices or service costs, locals tend to view such economic fluctuations as temporary and acceptable trade-offs for the broader community gains. Similarly, Barreda et al. (2017) and Falk and Vieru (2020) found that while major sporting events like the Olympic Games and FIFA World Cup can cause hotel and transport price surges, these are generally perceived as manageable and short-term effects. The same logic appears to apply to the MASTS Games 2022, albeit at a smaller regional scale, reflecting a positive cost-benefit balance that supports continued public endorsement of such initiatives.

Moreover, the high mean scores for social and image benefits highlight the role of the event in promoting social cohesion and city branding. Consistent with Billings and Holladay (2011), sports and socio-cultural events enhance local pride and foster a sense of belonging among residents. This psychological gain can be as significant as the economic benefit, especially in regional communities where opportunities for collective celebration are limited.

In contrast, the relatively low mean score for social costs implies that negative consequences such as traffic congestion or temporary disturbances are either well-managed or perceived as negligible. This finding complements Ribeiro et al. (2020), who observed that residents' negative perceptions of social costs often decline after the event, while positive impressions tend to strengthen. Therefore, for DOrSU and future hosts of MASTS Games, the implication is clear: maintaining strong communication, effective logistical planning, and visible community participation are key to sustaining public support and maximizing the socio-economic benefits of similar events.

Table 2.

Perceived Impact of the Mindanao Association of State Tertiary Schools (MASTS) Games 2022.

Indicators	Mean
Contribution to the economic growth of the city	4.41
Contribution to the development of the city	4.36
Positive effects exceed adverse effects	4.14
Support to host MASTS Games	4.49
Support for Sports Events	4.35
Increase in employment	3.80
New sports facilities	3.89
Increase in investments	3.87
Economic Benefits	3.86
Increase prices in the entertainment & accommodation sectors	3.64
Increase prices in rents	3.55
Increase the overall price level	3.67
Economic Costs	3.62
Improved nationwide image	4.40
Improved international image	4.23
Increased international publicity	4.43
Image	4.35
Increase efforts of local government to host events	4.43
Improvement of the city's roads, pavements, etc.	4.14
Improvement of community attachment	4.19
Increase in protection efforts of tourism resources	4.36
Stimulates the arrangements of cultural activities	4.22
Improvement of general conditions of the city	4.21
Increase residents' interest in international events	4.11
Social Benefits	4.24
Increase in Crimes	2.11
Increase in Traffic	3.96
Increase in Alcohol Consumption	2.39
Cultural Conflict	1.98
Increase in Prostitution	1.55
Social Costs	2.40

Event Support Model (ESM)

Table 3 presents the regression results of the proposed Event Support Model (ESM), which examined the influence of perceived benefits and costs on residents' support for the MASTS Games 2022. All constructs exhibited statistically significant relationships ($p < 0.05$) with the dependent variable, except for social cost, which was

negatively associated ($\beta = -0.116$). The regression coefficients show that increases in perceived economic benefits ($\beta = 0.130$), image ($\beta = 0.150$), and especially social benefits ($\beta = 0.370$) lead to higher levels of support for sports events. Conversely, a one-unit increase in perceived social costs results in a 0.116 decrease in support, indicating that perceived inconveniences or disruptions can modestly dampen enthusiasm for such events.

Table 3.

Estimated Coefficients for the Hypothesized Model.

Constructs	Support for Sports Events
(Constant)	1.589
Economic Benefits	0.130*
Economic Cost	0.090*
Image	0.150*
Social Benefit	0.370*
Social Cost	-0.116*

These findings align with Chen et al. (2018), who found that perceived benefits have a strong positive correlation with residents' support, while perceived costs exhibit a negative relationship. The prominence of social benefits as the strongest predictor underscores that emotional and communal gains, such as increased social cohesion, pride, and collective celebration, are more powerful motivators than material or economic considerations. This pattern is consistent with previous findings by Prayag et al. (2013) and Kim et al. (2019), who emphasized that community solidarity and shared identity often outweigh economic incentives in fostering public endorsement of sports and cultural events.

While overall perceptions of social costs were relatively low ($M = 2.40$), traffic congestion ($M = 3.96$) emerged as a notable concern. This suggests that residents do not associate the event with broader social problems like crime ($M = 2.11$) or alcohol consumption ($M = 2.39$), but logistical inconveniences—especially transport-related—remain significant. Addressing these operational challenges could therefore strengthen future public support. This finding resonates with Nunkoo and Ramkissoon (2012), who noted that residents' tolerance for event-related disruptions depends heavily on how effectively organizers manage event logistics and communicate benefits.

The regression equation for the model is: Y (Support for Sports Events) = $1.598 + 0.130$ (Economic Benefits) + 0.090 (Economic Cost) + 0.150 (Image) + 0.370 (Social Benefit) - 0.116 (Social Cost).

This equation illustrates that support for sporting events is positively influenced by economic benefits, event image, and social benefits, and negatively by social costs. The relatively small positive coefficient for economic cost ($\beta = 0.090$) may imply that residents accept certain expenses as reasonable trade-offs for perceived communal and reputational gains, an idea similarly supported by Mair et al. (2021), who argued that perceived economic and symbolic rewards often outweigh immediate financial burdens in sustaining event legitimacy.

Regarding model performance, the goodness-of-fit measures indicate that as additional constructs were introduced, model accuracy improved. The Mean Square Error (MSE) values decreased progressively, from 0.702 (Model 1, Social Benefit only) to 0.668 in the final model (Social Benefits, Social Costs, Economic Benefits, Economic

Costs, and Image). Similarly, the R^2 value increased from 0.191 (Model 1) to 0.24 in the final model, showing that the inclusion of multiple constructs explains a greater share of variance in residents' support. Although an R^2 of 0.24 indicates modest explanatory power, it still provides meaningful insight into the dominant drivers of community support. This limitation highlights the potential role of omitted variables such as prior event experience, civic engagement, or personal attachment to sports, which are factors previously identified by Kim et al. (2019) as significant predictors of support.

Despite the relatively low R^2 , the regression results remain theoretically valuable. They reinforce the Event Support Model's assertion that residents' support depends on their perceived balance between benefits and costs. Mega-events and regional competitions alike can foster social capital, destination branding, and local pride (Ferris et al., 2022; Mair et al., 2021). Hence, local governments and organizers should continue emphasizing the tangible and intangible community benefits of hosting the MASTS Games while addressing manageable costs, such as traffic congestion and logistical issues.

Furthermore, the incremental increase in R^2 as more predictors were added supports the statistical notion that additional relevant constructs improve model performance. This trend suggests that expanding future models to include psychological or experiential factors may better explain residents' attitudes toward event hosting. By refining measurement instruments and incorporating moderating variables such as perceived fairness or community involvement where researchers can strengthen the explanatory power of the ESM and contribute to a more holistic understanding of sustainable event tourism dynamics in the Philippine context.

Income Impact

Table 4.
Income Impact of Mindanao Association of State Tertiary Schools (MASTS) Games 2022.

Income		Mean	N	Mean Difference	t	p-value
Tricycle/ Bao-bao Drivers	Before MASTS Games	536.01	138	-174.13043	- 6.496	.000
	During MASTS Games	710.14	138			
Small Business	Before MASTS Games	3343.13	80	-1371.25000	- 2.613	.011
	During MASTS Games	4714.38	80			

Table 4 reveals that the average income of tricycle and Bao-bao drivers during MASTS Games 2022 (M = 710.14) is significantly higher than that of their average income before (M = 536.01) the conduct of MASTS Games 2022 (t = -6.496, p = 0.000). Additionally, the average income of small business establishments during MASTS

Games 2022 ($M = 4714.38$) is significantly higher than that of small business establishments before ($M = 3343.13$) the event ($t = -1371.25000$, $p = 0.011$). These findings indicate that the daily revenue of tricycle drivers and small business owners increased significantly during the MASTS Games 2022.

The increased economic activity was primarily driven by the influx of athletes, spectators, and organizers, which heightened demand for goods and services across various sectors. Local transportation services benefited from increased passenger traffic, particularly from visitors requiring short-distance mobility around the city. Small-scale enterprises such as sari-sari stores, eateries, and souvenir shops likewise reported substantial sales growth as visitors sought accessible food options, local products, and event memorabilia. These patterns illustrate a “localized spending effect,” wherein visitor expenditures circulate within the host community, stimulating small-scale entrepreneurship and promoting inclusive economic participation.

These findings support Dimitrovski et al. (2021), who observed that sporting events contribute to local economies not only through direct income but also through multiplier effects such as indirect taxation and employment opportunities. Similarly, Billings and Holladay (2011) emphasized that event tourism can invigorate local commerce by increasing demand for basic goods and services, particularly in peripheral destinations. In the case of Mati City, the MASTS Games 2022 temporarily enhanced local business profitability and transport operators’ economic stability, highlighting the potential of such events to serve as catalysts for local economic vibrancy.

However, these economic gains were not without challenges. One notable negative outcome was the temporary fare hikes imposed by some tricycle drivers, exploiting the surge in transportation demand. While this resulted in higher short-term earnings for operators, it also burdened residents and visitors who depended on these services. This dynamic mirrors the supply-demand imbalance frequently observed during large-scale events, such as the SEA Games and Sinulog Festival, where limited transportation capacity and weak regulatory enforcement lead to opportunistic pricing. Alalawneh et al. (2021) similarly found that increased operational demand often results in cost transfers to consumers, particularly in transport services during high-demand periods.

Unregulated fare increases may undermine the perceived fairness and accessibility of local services, ultimately affecting community satisfaction and the city’s tourism image. Melo et al. (2021) emphasized that while event-driven consumption stimulates local economies, it may also lead to inflationary pressures that reduce affordability for both locals and visitors. Thus, balancing short-term profits with equitable access is crucial to maintaining long-term community support for such events. To ensure sustainable economic benefits, local government units should consider implementing fare control mechanisms, deploying enforcement personnel, and providing official event shuttles to prevent overpricing and maintain service reliability.

From a sustainability standpoint, these findings underscore that while hosting sports and socio-cultural events like the MASTS Games generates immediate financial benefits, long-term economic resilience depends on how these short-term gains are reinvested. Strengthening tourism infrastructure, supporting small businesses through capacity-building programs, and launching post-event marketing campaigns could help maintain momentum beyond the event period. Moreover, consistent regulatory oversight, especially on pricing and consumer protection, will help preserve public trust and foster a positive reputation for Mati City as a capable and ethical host of large-scale events.

Claims, Concerns, and Issues

The hosts incurred enormous costs for billeting, venue preparation, facilities, food, security and safety, human resource mobilization, and other related expenditures. There is a need to document the claims, concerns, and issues to effectively manage limited resources and optimize the social and economic benefits of the MASTS Games 2022. Consequently, this will influence the sustainability of event tourism and will determine the viability of hosting mega-events in the future (Getz & Page, 2019; Xiang et al., 2020).

As elaborated in Table 5, the event positively impacted the social conditions of the host institutions. It has magnified the full support of the local government units and the decisive leadership of political and educational leaders who steered the event's success. Also, the harmonious relationship within the organizing team and establishing an Incident Command System (ICS), an all-risk management concept, are keys to success. This finding confirms that mega-events promote cultural legacies, enhance technical capabilities, and stabilize the political landscape (Dolles & Söderman, 2008). Most importantly, the event became a platform to market the university's academic programs and the province's tourism destinations.

Table 5.
Claims, Concerns, and Issues in the Mindanao Association of State Tertiary Schools Games (MASTS) Games 2022.

Items	Remarks
Claims <i>(Positive statements about the event)</i>	● Full support from the local government units ● Dynamic and decisive leadership of political and educational leaders ● Establishment of an Incident Command System (ICS) ● Harmonious working relationships with the committee members ● Return on investment through increased tourism revenues ● Fostered a positive image of the university and the province ● Marketing of the university's academic programs

Concerns (<i>Negative statements about the event</i>)	● Insufficient billeting areas ● Water shortage ● Power outage ● Volatile game schedules ● Last-minute changes in the game venues ● Environmental pollution (i.e., single-use plastics & other solid wastes) ● Illegal fare hike ● Increase in the price of local market goods ● Threats of the COVID-19 pandemic and other diseases ● How can we ensure adequate human, physical, and financial resources?
Issues (<i>How and what questions about the claims and concerns</i>)	● How can we efficiently coordinate with event organizers and partners? ● How can we optimize the social, economic, and environmental benefits?

However, the event also surfaced several concerns, requiring utmost consideration in future bids to host mega-events. This includes inadequate physical resources, leading to billeting problems, power outages, water shortages, and volatile game schedules and venues. A risk assessment plan with corresponding sustainability measures should be crafted to ensure these concerns are averted (Ural, 2016). The environment should also be considered, mainly plastic pollution, especially since Davao Oriental is a coastal province. Previous studies have documented plastic pollution threatening nearby ecosystems and wildlife (Abreo et al., 2016; Abreo et al., 2020; Inoco & Villegas, 2024; Verzosa et al., 2024). This is aligned with DOrSU's initiatives to champion regenerative futures, aimed at mitigating pollution problems and regenerating marine and coastal ecosystems (Ponce & Villegas, 2022; Villegas & Ponce, 2024).

Aside from this is the need to protect visitors from market price and fare hikes through the issuance of regulations. Fare increases can create a financial burden, particularly for daily commuters and local business owners who rely on affordable transportation. For residents, higher fares have led to resentment and reduced support for the event, as they have increased their cost of living without immediate compensation. Similarly, for tourists and visiting participants, fare hikes have affected their overall event experience, making transportation more expensive and less accessible. This led to dissatisfaction, negatively impacting their perception of the City's ability to host large-scale events in an inclusive and visitor-friendly manner.

Another important consideration is the health and safety plan to mitigate the threats of the COVID-19 pandemic and other diseases. The study of Leikuma-Rimicane et al. (2023) emphasized the importance of organizing events to address mental health problems among teachers and students, especially in the aftermath of the pandemic. Attending mega-events is an opportunity for the locals to deal with depression, anxiety, and stress.

In line with the Social Exchange Theory (SET), residents acknowledged significant

benefits, such as increased tourism revenue, strengthened local leadership, improved city image, and enhanced community relationships. These advantages created a sense of return on investment, as the event contributed to economic growth, infrastructure development, and regional recognition. The marketing of the City's academic programs and the harmonious collaboration among stakeholders further reinforced the perception that hosting the event yielded long-term socio-economic gains.

Despite these concerns, the overall strong support for the event suggests that residents perceived the benefits as greater than the costs. However, SET warns that if negative externalities become overwhelming, future support may decline. Appropriate measures should be undertaken to ensure the sustainability of event tourism in the locality. To this end, the present study proposed three issues central to planning. These include providing adequate human, physical, and financial resources, coordinating with event organizers and partners, and optimizing benefits at the nexus of the three pillars of sustainability, such as social, economic, and environmental. As Wise (2020) positioned it, the key strategies to move forward include holistic planning, stakeholder collaborations, and environmental consideration.

Conclusion

This study advances the discourse on event tourism by contextualizing the socio-economic and perceptual impacts of the MASTS Games 2022 within a subnational Philippine setting. Unlike prior research focused on international mega-events, this paper demonstrates how regional sporting events can meaningfully influence local economies, community dynamics, and place identity. The results affirm that hosting the MASTS Games 2022 enhanced the host city's image, stimulated small business revenues, and encouraged tourism-linked investments, outcomes that contribute to local economic resilience and regional visibility.

Beyond the economic dimension, the findings underscore that residents' perceptions are shaped by both tangible and intangible factors. The study, anchored in the Event Support Model (ESM) and Social Exchange Theory (SET), confirms that community support for event tourism hinges on the balance between perceived benefits (economic and social) and perceived costs (economic and social). When benefits outweigh the costs, residents tend to exhibit stronger event endorsement, reinforcing the idea that equitable benefit distribution and transparent governance are essential to maintaining public trust.

However, the study also brings attention to persistent challenges such as fare hikes, price inflation, environmental strain, and logistical limitations, which are issues that, if unaddressed, could erode local support. These findings highlight the need for a more systematic event management framework that incorporates environmental safeguards, transportation regulations, and post-event sustainability programs.

Looking forward, future research may explore longitudinal impacts of regional sporting events on host communities, focusing on their role in sustaining tourism momentum, enhancing local identity, and fostering inter-institutional collaboration among universities, local governments, and private sectors. Policymakers are encouraged to institutionalize event hosting protocols and capacity-building initiatives to ensure that the benefits of mega-events extend beyond the event duration, nurturing a culture of sustainable and inclusive event tourism across Philippine regions.

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