Triana

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Do Social Factors Contribute to International Sports Performance: A Panel Data Analysis of Countries' Performance in the Asian Games

Abstract

Asia has become a leader in international sports championships, which is a reason for increased focus on the sports performance of the region. However, different economic, political, and social factors influence the region's performance, as depleting social or economic structures can negatively influence performance. This study focused on the social factors and their influence on the international sports performance of Asian countries. To do so, we evaluated the effect of health expenditure, education expenditure, and development on sports performance by controlling for gross national income and population growth from 1961 to 2018. The data was analyzed through the application of VAR, and the study's findings revealed a significant linkage between social development and national sports performance. The study provides implications for government and policymakers and recommendations for future research.

Keywords: education expenditure, healthcare expenditure, social development, Asian games, and sports performance

1 Introduction

In contemporary time, after sustaining long-term economic growth, Asian countries are emerging as a significant market in sports. The domestic sports industry of region is consistently growing over the past few decades (Lee & Watanabe, 2019). Revindo et al. (2019) highlight that Asian games are multi-branch sports event that involves almost all the countries of the continent. Existing studies in empirical literature give substantial importance to economic factors while Li and Luk (2011) highlight that in line with this investigation, there are other significant dimensions the impact of which can be analyzed on sports performance. In this context, overall sports activism is driven by multiple determinants and among them social factors are the central focus of this paper. This exploratory case examines social factors as significant forces which impact the sports performance of Asia. The main theoretical motivation for this present study comes from past studies which highlight that the coexistence of various performance logics (economic, social) create a positive degree of performance and benefits for all (Ferri et al., 2017). Many countries in Asian region are enhancing their sports market as shown in figure 1, which highlights the need of investment by other countries to significantly develop sports performance of entire region.

Figure 1. Sports market of Asian countries

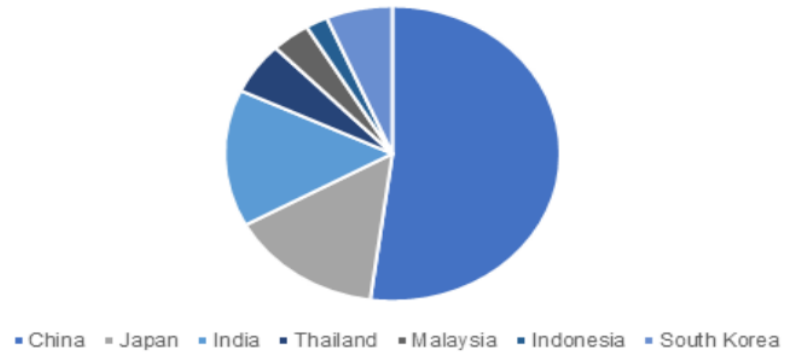

Figure 1:Sports market of Asian countries
Source: (GraphicalResearch, 2020)

Eigenschenk et al. (2019) identify that beyond the health-enhancing effects of sports, they are also associated with multiple social benefits, including the development of the region and active citizenship of its inhabitants to achieve a wide range of positive impacts. Among social factors, the research on sports education has been framed by two broad categories; the practical strategies that are required to implement sports education and the impact of this educational model (Araújo et al., 2014). With respect to this, education spending can potentially bring forth significant outcomes of social development and the progression of sports performance. Gavrilova et al. (2017) bring forth that athletes are exposed to mental and physical health disorders which negatively impact their performance, attitude, and behavior, consequently impacting the entire sports performance. The Optimum Performance Program in Sports (TOPPS) thus enhances the utilization of certain therapies and treatments to enhance the performance of athletes for the effective development of sports in a region. Accordingly, spending on health is also a significant social factor that needs to be explored in the context of sports performance.

Accordingly, the existence of many societal factors is being questioned by much academia, yet their impact on Asian sports has not been clearly identified. Moreover, the current empirical evidence that has analyzed the impact of social factors on sports performance has brought forth contradictory and fragmented results. As a consequence of these issues, this study tends to identify the impacts of societal factors on Asian sports with a keen consideration of factors like education spending, health spending, and development. Keeping in view its central aim, significant research questions are developed for this paper which has been listed below.

RO1: How does the social development of a region contribute to sports performance?

RO2: Is there any linkage between social development factors like education and healthcare and national sports performance within Asia?

RO3: At what levels of development, like access to water and electricity, impacts sports performance in Asia?

This paper identifies the significant association of social factors with sports performance in Asia. Accordingly, the results derived from this study are significant as, at the first level, they extended the existing literature of sports studies, and at the second level, the relevant findings encourage future researchers an opportunity to explore the impact of more social factors on effective sports performance of their region. The findings of this study are important not only for Asian policymakers, yet they are significant for all relevant departments globally. The remainder of the study is structured as Section 2 deals with a literature review and highlights significant reviews from existing evidence to support the objectives of this study. Section 3,

namely methodology, refers to the utilization of research approaches and methods which are being utilized to draw the effective results of this study. Section 4 represents relevant results, and Section 5 that deals with the discussion of results and theoretical and practical implications with the concluding limitations of the study and indications for future research studies.

2 Literature Review

A normative theory of sports development presented by Green (2005) illustrated the institutional and ideological foundation of sports development. The social developments in terms of sports education, healthcare funding, and basic life necessities are rooted in sports participation and competition. The following three chief legitimations support sports engagement for competitive purposes: 1)Health promotion (Siedentop, 2002), 2)Economic benefits 3) improved athletes pool for internal competitions and achievements (Oslin, 2002). The concern of sports policies and sports standards, therefore, lies in the improvement of social factors that contribute to the success ratio of the country's athletes (GuoJie, 2021; Moore et al., 2014). The sports theories and research studies also emphasized the significance of social, political, and economic factors in shaping the sports systems. This extensive body on sports development draws attention to the spending and investment for this particular cause (Savić et al., 2018). In order to strengthen the quality of sports, the role of government bodies and sports institutions has been paid significant attention (Berthelot et al., 2015; De Bosscher et al., 2009; Geeraert et al., 2014). By boosting the potential and performance of international sports candidates, the governments secure their medals and achievements in mega sports events.

Table 1: Summary of literature

Author	Country/Group	Period/Year	Variables	Results
(De Bosscher et al., 2011).	Swedish	2011	Elite Sports Policies & International sporting success	Motivation and the intervention of government and local bodies in sports development regulate the success factor of sporting success
LIU and ZHANG (2023)	Japan	2023	Healthcare spending & Improved Health	Healthcare spending is positively associated with improved sports health and achievement
(Dehghansai et al., 2020).	National sports	2020	Olympics education and social support	Sports education programs promote health literacy and potential of candidates and positively associated with the sporting achievement
Banack et al. (2011)	Canada	2011	Basic needs availability	Psychological and biological necessities shape the motivation and performance of athletes which in turn increases their chances of medal achievement.
Andrade Rosas and Flegl (2019)	Denmark	2019	GNI and country's winning rate	Country in case of improved GNI has a higher probability of achieving medals and sports achievements.

Asian games are the mega sports event in the Asian region which was initially held under the Asian Federation Games and later the responsibility was shifted to the Olympic Council of

Asia (OCA) (Hong, 2013). There are many indicators to measure the success of the countries at mega sports events (Kavetsos & Szymanski, 2010; Storm & Jakobsen, 2020). One of the most commonly adopted methods is the "lexicographic ranking" which assists in comparing the sports performance of countries at a sports event (Jablonsky, 2018). Mostly the ranking is based on the number of medals i.e., silver, gold, and bronze medals. On this basis, it is inferred that the ranking of the countries in Asian games is completely based on the quality and number of medals (Kim et al., 2006). The rankings in the international sports event, therefore, indicate the success factors of sports and games by any country. Moreover, after the 20th century, achieving international medals, especially Asian sporting success became a matter of interest for the Asian countries. The demographic and economic predictors of international sports success have been investigated over the last two decades by sports analysts and researchers (Hallmann & Breuer, 2014; Pauna et al., 2020; Vagenas & Vlachokyriakou, 2012). However, in terms of socioeconomic factors, there are multiple areas that remained unexplored. As Social factors are the strongest markers of sports development and sports success in any kind of sports, their significance in analysing the whole sports network is essential.

The degree of investment in sports activities i.e., education and healthcare spending are found to be the strongest determinants of sporting success on international platforms. Developed countries heavily invest in sports education and health facilities which is essential for sport sustainability. Volf et al. (2022) reported that sports policies that pay extra attention to healthcare necessities are essential in ensuring the participation of potential players and ensuring sports success. Moreover, improved health is directly connected with healthcare facilities which yield improved sports results at competitive platforms. Physical fitness and sports health influence the motivation level of participants which is indirectly related to the number of achievements (Pauna et al., 2022). Along with healthcare investment, the spending on sports education also seemed to be a contributing factor in determining the success of international sports candidates and medal achievement. Siedentop et al. (2019) stressed that sports education increases the sports expertise and engagement of the players which is necessary for achieving better results in domestic and international competitions. From viewpoint of Naul et al. (2017) Olympics education and other sports educations programs are more likely to inspire young candidates to potentially participate on the international platforms which in return can increase the chances of countries to get prominent achievement and medals. The government initiatives in this case for social developments i.e., water, electricity, or basic sports equipment presence. The relationship between social development and the winning rate is crystal clear by the impact of economic and social progress. (Krishna & Haglund, 2008) brought out the differences between countries with high sports medals and those who have the least medal in internal sports. The deprivation of social necessity, poverty, and unaffordability of basic needs are reported solid causes of sports failures of countries in the Olympics and other games. Hosein et al. (2013) demonstrated that the country's people are the national pride and play a specific role in determining medal outcomes of the countries. The effect, however, differs in the case of countries' economic status and population resources. Flegl and Andrade (2018) while measuring the country's performance in the Summer Olympics games 2016, underlined that the countries with maximum medals and 100% performance falls into the GNI classification of high-income economies. This makes it evident that the GNI and population in some cases have a controlled impact on the internal performance of countries in Asian games. From the above it is theoretically evidenced that the social factors play a critical role in defining the sports performance of countries at international sports events. Moreover, it is evident that most of the research studies were conducted in context of Olympics and European games. The impact of social factors on country's performance in Asian games remained unexamined. To fulfil this gap, the study provides an extensive analysis of social factors in last six Asian games and the countries that secured maximum sports achievements.

3 Method

The present study's primary focus was social factors' impact on the national sports performance of Asian countries. The study was based on a panel data format, including data from China, India, Indonesia, Iran, Japan, North Korea, South Korea, Pakistan, Thailand, and the Philippines. Annual data from 1960-2018 was collected from the World Bank online database and the Asian games federation. Since the Asian games are held every four years, the researcher only included the observations for the years when the games were held, i.e., 1962, 1966, 1970, 1974, 1978, 1982, 1986, 1990, 1994, 1998, 2002, 2006, 2010, 2014, and 2018. Three factors were selected to depict the social structure and performance of the region, i.e., health expenditure, development, and educational spending. Table 2 presents the variables used to measure the factors and their sources.

Table 2:Variable measurement and sources

Factor	Abbreviation	Variable	Source
Dependent			
National sports performance	NSP	Medals won by a country in tournament year in Asian games.	News clips, reports, and tournament bulletins.
Independent			
Health expenditure	HE	Health expenditure as a percentage of GDP	WDI
Development	ACE	Access to clean water	WDI
	DVW	Access to electricity	WDI
Educational spending	EE	Education expenditure as a percentage of GNI	WDI
Control			
Population	POP	Population growth percentage	WDI
Gross national income	GNI	Represents the gross national income of the country.	WDI

This analysis is based on the panel data vector autoregressive model developed by Love and Zicchino (2006). This allowed the researcher to account for the unobserved heterogeneity in the entire series by introducing the fixed effects to improve the consistency and coherence of the measurement. Moreover, the method has several benefits over others; particularly, it allows for estimating the variables when the long-run association is non-existent. Moreover, the method doesn't distinguish between exogenous and endogenous variables. Instead, all factors are mutually treated as endogenous factors. In the model, each variable is dependent on its historical values and other values, indicating a simultaneous association between their variables and themselves. Therefore, the model has obvious value as a practical instrument for the evaluation of the mutual impact of the social factors influencing the national sports performance within the Asian region and performance and for the development of a strategic recommendation.

4 Results

Table three showcases the descriptive summary of the data. It can be seen that the data was normally distributed for access to electricity, education expenditure, and population, As informed by the skewness, kurtosis, and Jarque-Bera tests.

Table 3: Descriptive Summary

	ACE	DVW	EE	GNI	HE	NSP	POP
Mean	35.27879	36.68657	2.132941	7.22E+11	1.399643	82.18667	1.717427
Median	0.000000	9.674233	2.202812	1.07E+11	0.000000	33.00000	1.633763
Maximum	100.0000	354.3091	6.595267	1.38E+13	10.74839	2016.000	4.878937
Minimum	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-0.132694
Std. Dev.	44.21228	79.88177	1.508006	1.81E+12	2.446278	182.8492	0.953852
Skewness	0.536112	3.019430	0.200907	4.420155	1.782961	8.103545	0.273542
Kurtosis	1.411608	10.88215	2.727871	26.44544	5.663485	84.76559	2.757371
Jarque-Bera	22.95409	616.2253	1.471929	3923.998	123.8122	43426.76	2.238555
Probability	0.000010	0.000000	0.479043	0.000000	0.000000	0.000000	0.326516
Sum	5291.818	5502.985	319.9411	1.08E+14	209.9465	12328.00	257.6140
Sum Sq. Dev.	291254.1	950783.5	338.8380	4.88E+26	891.6568	4981643.	135.5652
Observations	150	150	150	150	150	150	150

Table 4 indicates that at a level, all variables were non-stationary; however, after estimation of the unit root test at the first difference, all indicators were stationary. Thus, stationarity existed only in the variables at the first difference (García-Cintado et al., 2015).

Table 4: PP Unit root test

Variable	Level	First difference
ACE	10.15	46.46**
DVW	7.38	92.88**
EE	24.26	95.25**
GNI	2.49	38.3**
HE	6.89	55.36*
NSP	51.69	152.2**
POP	28.95	126.13

In the next stage, the researcher studied the long-run co-integration among the variables by applying the Pedroni co-integration tests (Pedroni, 2004). The within-dimension and between-dimension statistics indicate no long-run association among the variables. Thus, the results suggest no long-term effects of social factors on national sports performance.

Table 5: Long-run Co-integration

Alternative hypothesis: common AR coefs. (Within-dimension)	
	Weighted

	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	-1.029287	0.8483	-1.378757	0.9160
Panel rho-Statistic	2.911606	0.9982	3.441321	0.9997
Panel PP-Statistic	-2.855822	0.0021	-2.685923	0.0036
Panel ADF-Statistic	1.618053	0.9472	-0.557526	0.2886

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	4.554581	1.0000
Group PP-Statistic	-6.618639	0.0000
Group ADF-Statistic	0.426672	0.6652

As the long-run associations were insignificant, the researcher estimated the unrestricted VAR to analyze the medium-term and short-run effects of the social factors on the NSP. Table 6 indicates that there is a presence of insignificance in the effects of social factors on NSP in its original form; however, upon evaluating the different versions of NSP, it can be stated that the social factors have a significant impact on the NSP of Asia. Access to water and electricity, education expenditure, and healthcare expense inform the country's development level. Therefore, improvement of these basic facilities might improve the people's living conditions and their participation and performance. The r-square for the model is 0.82, suggesting that 82% of variation exists in the model (figure 2).

Table 6: VAR

	ACE	DVW	EE	GNI	HE	NSP	POP
ACE(-1)	0.754420	-0.020971	8.36E-05	1.65E+09	0.004030	-0.412762	0.000610
	(0.09742)	(0.12748)	(0.00458)	(2.0E+09)	(0.00451)	(0.81598)	(0.00203)
	[7.74385]	[-0.16450]	[0.01826]	[0.84260]	[0.89368]	[-0.50585]	[0.29983]
ACE(-2)	-0.027450	0.022560	-0.000694	-2.91E+09	0.010300	-1.243149	-0.001389
	(0.10455)	(0.13681)	(0.00491)	(2.1E+09)	(0.00484)	(0.87565)	(0.00218)
	[-0.26256]	[0.16490]	[-0.14130]	[-1.38602]	[2.12830]	[-1.41969]	[-0.63649]
DVW(-1)	-0.013469	0.964899	-0.002558	2.28E+08	-0.000652	0.073856	0.005405
	(0.07114)	(0.09309)	(0.00334)	(1.4E+09)	(0.00329)	(0.59585)	(0.00148)
	[-0.18934]	[10.3649]	[-0.76536]	[0.15902]	[-0.19789]	[0.12395]	[3.64104]
DVW(-2)	0.073950	0.026192	0.001224	-2.28E+08	0.002295	-0.085359	-0.005999

	(0.07548)	(0.09877)	(0.00355)	(1.5E+09)	(0.00349)	(0.63220)	(0.00158)
	[0.97973]	[0.26517]	[0.34521]	[-0.15038]	[0.65697]	[-0.13502]	[-3.80874]
EE(-1)	0.980098	-1.573829	0.400320	-8.00E+09	0.082056	10.22887	0.038267
	(1.81057)	(2.36928)	(0.08507)	(3.6E+10)	(0.08381)	(15.1649)	(0.03778)
	[0.54132]	[-0.66426]	[4.70552]	[-0.21972]	[0.97904]	[0.67451]	[1.01285]
EE(-2)	3.590665	2.225663	0.337736	-3.99E+09	0.042378	-2.065049	-0.054941
	(1.78654)	(2.33784)	(0.08395)	(3.6E+10)	(0.08270)	(14.9636)	(0.03728)
	[2.00984]	[0.95202]	[4.02327]	[-0.11106]	[0.51243]	[-0.13800]	[-1.47375]
GNI(-1)	2.59E-12	6.27E-14	-7.91E-14	1.877931	-8.24E-13	-5.28E-12	3.50E-14
	(4.0E-12)	(5.2E-12)	(1.9E-13)	(0.07959)	(1.8E-13)	(3.3E-11)	(8.3E-14)
	[0.65569]	[0.01210]	[-0.42535]	[23.5938]	[-4.50013]	[-0.15927]	[0.42330]
GNI(-2)	-3.80E-12	-4.20E-13	4.37E-14	-0.881252	1.32E-12	9.36E-11	-5.13E-14
	(5.7E-12)	(7.5E-12)	(2.7E-13)	(0.11559)	(2.7E-13)	(4.8E-11)	(1.2E-13)
	[-0.66195]	[-0.05585]	[0.16192]	[-7.62400]	[4.97038]	[1.94421]	[-0.42767]
HE(-1)	-0.407759	-0.200302	0.010081	3.43E+10	0.633612	-0.927982	0.017764
	(1.96824)	(2.57561)	(0.09248)	(4.0E+10)	(0.09111)	(16.4855)	(0.04107)
	[-0.20717]	[-0.07777]	[0.10900]	[0.86699]	[6.95425]	[-0.05629]	[0.43251]
HE(-2)	-0.092202	-0.151776	0.000113	-1.76E+09	0.031877	34.98030	0.013588
	(2.09502)	(2.74151)	(0.09844)	(4.2E+10)	(0.09698)	(17.5474)	(0.04372)
	[-0.04401]	[-0.05536]	[0.00115]	[-0.04179]	[0.32870]	[1.99348]	[0.31082]
NSP(-1)	-0.004424	0.002205	0.000289	-8.47E+08	0.000874	-0.083474	-0.000184
	(0.01186)	(0.01552)	(0.00056)	(2.4E+08)	(0.00055)	(0.09935)	(0.00025)

	[-0.37292]	[0.14207]	[0.51888]	[-3.54997]	[1.59085]	[-0.84017]	[-0.74485]
NSP(-2)	-0.004644	0.002044	5.37E-05	5.68E+08	-0.000971	-0.205695	-5.56E-05
	(0.01371)	(0.01794)	(0.00064)	(2.8E+08)	(0.00063)	(0.11480)	(0.00029)
	[-0.33881]	[0.11397]	[0.08339]	[2.05895]	[-1.53030]	[-1.79178]	[-0.19454]
POP(-1)	-3.084400	2.230472	0.074273	-5.45E+10	0.164897	-50.10778	0.619898
	(3.82990)	(5.01174)	(0.17996)	(7.7E+10)	(0.17729)	(32.0783)	(0.07992)
	[-0.80535]	[0.44505]	[0.41272]	[-0.70786]	[0.93010]	[-1.56205]	[7.75660]
POP(-2)	-8.570138	1.787172	0.020109	-1.55E+10	-0.368293	-16.36359	0.287327
	(3.97464)	(5.20115)	(0.18676)	(8.0E+10)	(0.18399)	(33.2906)	(0.08294)
	[-2.15621]	[0.34361]	[0.10768]	[-0.19337]	[-2.00171]	[-0.49154]	[3.46430]
C	27.17256	-2.693013	0.756892	2.14E+11	0.361344	188.5167	0.031970
	(7.09995)	(9.29088)	(0.33361)	(1.4E+11)	(0.32866)	(59.4674)	(0.14816)
	[3.82715]	[-0.28986]	[2.26879]	[1.49789]	[1.09944]	[3.17008]	[0.21579]
R-squared	0.823487	0.913721	0.562489	0.960649	0.882687	0.335782	0.827405
Adj. R-squared	0.801999	0.903217	0.509227	0.955859	0.868405	0.254921	0.806393
Sum sq. resids	46340.39	79352.90	102.3124	1.88E+25	99.29972	3250930.	20.17827
S.E. equation	20.07386	26.26833	0.943225	4.04E+11	0.929234	168.1337	0.418883
F-statistic	38.32221	86.99177	10.56076	200.5308	61.80580	4.152570	39.37842
Log likelihood	-566.4173	-601.3802	-168.8942	-3650.636	-166.9515	-842.7116	-63.37168
Akaike AIC	8.944881	9.482772	2.829142	56.39440	2.799255	13.19556	1.205718
Schwarz SC	9.275750	9.813641	3.160012	56.72527	3.130124	13.52643	1.536587
Mean dependent	40.70629	42.33065	2.461085	8.30E+11	1.614973	89.26923	1.617813
S.D. dependent	45.11250	84.43722	1.346402	1.92E+12	2.561566	194.7842	0.951990
Determinant resid covariance (dof adj.)		1.21E+32					
Determinant resid covariance		5.13E+31					
Log likelihood		-6037.270					

Akaike information criterion	94.49646
Schwarz criterion	96.81255

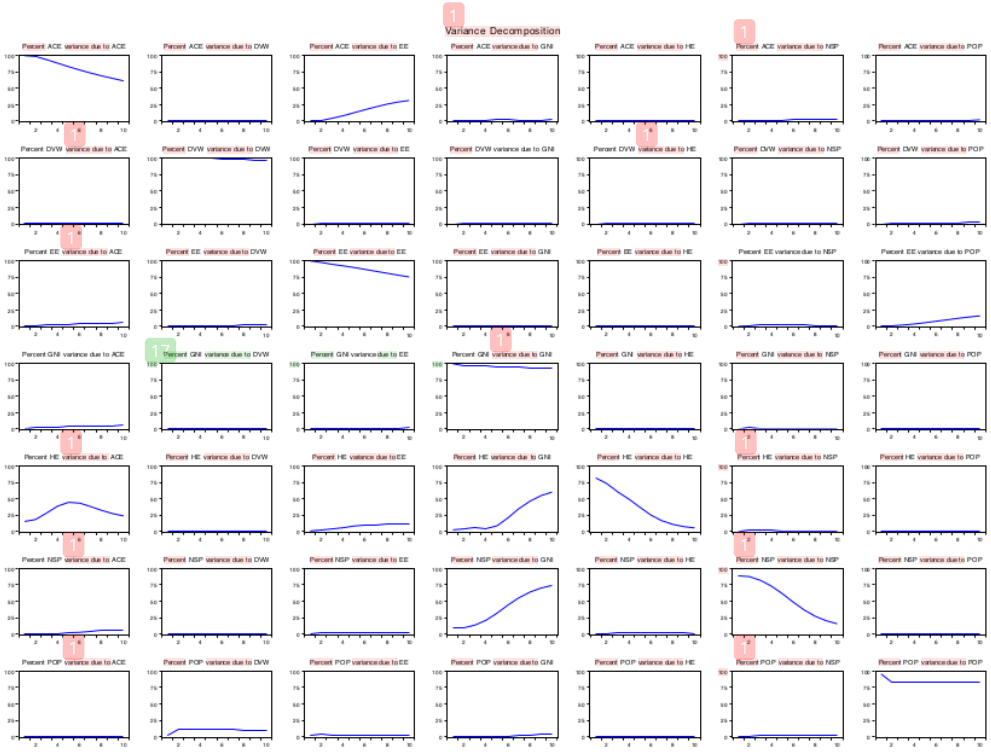

Figure 2: Variance decomposition

5 Discussion and Conclusion

The study analyzed the impact of social factors on the international sports performance of the countries in Asian games. The data was collected from secondary sources and on selective measures, the social factors are studied. The key factors i.e., health spending, education expenditure, and availability of basic necessities i.e., electricity and water were considered in accordance with the periodic variation of the country's performance throughout the years. The results presented a descriptive summary of the data including the mean, kurtosis, and Jarque-Bera test which showed that except for population and electricity spending, all the other variables do not have a normal distribution. As the study followed panel data analysis, the next statistical procedure was the unit root checking. The absence of a unit root indicated that the data in the panel series is stationary. Con integration test was performed to test the correlation in the long run for the selected period. The results indicate that no significant association is found between social factors and the internal sports performance of the selected countries. To analyze the short-run impact of social factors on international sports performance the auto regression test was conducted. As per the results, the lagged value of all the variables indicates a significant long-run association between the variables. However, the impact of population, developmental factors, and health expenditures are minimal in relation to the other variables. The non-lagged probability value of the variables indicates variables have a statistically insignificant association. Population and GNI are found to be negatively associated with

national sports performance. Moreover, the higher R-squared value of variables indicated higher variability throughout the lags.

The findings of the study align with some of the past studies i.e. Jain and Bhatnagar (2016) demonstrated that the health budget of the country has a significant impact on the country's winning chances due to its athlete's potential and better health performance. The study by Mitra (2015) also indicates that health spending potentially increased the chances of the country's winnings in the FIFA World Cup. It is also noticeable that the countries before world tournaments increase their health budgets to facilitate international athletes. Smolianov et al. (2022) showed concern that the interventions in healthcare costs are problematic for ensuring the successful route of success on international platforms. Mazzei et al. (2015) pinpointed that the country's sports policies significantly impact physical and sports education which as result impacts the country's sporting performance. The study by Yudkevich et al. (2015) provided an in-depth insight into the success ratio of countries and their results indicate that top-ranking countries pay huge attention to physical or sports education at a higher level. Flegl and Andrade (2018) studied the countries' performance at the summer Olympics games which indicates that the country with political stability and higher GDP and GNI are most probably to succeed at the international sports platforms. Burke et al. (2018) emphasized the basic necessities expenditures and their relationship with the athlete's performance and achievement rate. The studies however not consider the significance of these factors from an Asian games' perspective. The findings of the study indicate that these variables significantly impacted the performance of the selected countries in the last six Asian games after 1998.

As Asian countries are tangled with multiple social and economic factors, sports performance and budget remained in a fluctuating state. Since the last decade, it is observed that Asian countries are keenly taking part in international sports events and paying huge attention to the internal factors that determine the motivation and potential of their athletes. As much attention is paid to the economic and governmental factors, the position of social factors remained neglected by previous research bodies. The variables were significant as the socio-economic of this region is becoming the only major obstacle in achieving worldwide recognition on international sports platforms. However, the region observed sheer diversity in terms of its social conditions. While some Asian countries are prevailing sustainable social systems, Middle Eastern or East Asian countries are facing major setbacks in providing successful social support for their athletes. Special attention, therefore, is paid to the social factors and their significance in determining the success ratio in the past Asian games.

Research limitation and implications

Despite covering social factors from a critical perspective, the study has certain limitations. Firstly, the analysis only focused on the social variables. As there are other variables as well that need consideration i.e., sports institutions' role and physical education learning platforms that also significantly play a role in determining the sports achievement of any country. Besides, the study only focused on the Asian games. The geographical limitation and specification can be taken as an opportunity for future researchers to expand this topic further by including worldwide sports tournaments. Moreover, the study only focused on a specific period which shows a time limitation of the study. This research can be carried further by including relevant factors independent of regional specification in different periods.

Overall, it can be concluded that the findings will have significant implications on both theoretical and practical grounds. The study has important implications for sports researchers in scholars in analyzing the social perspectives on sporting competition and achievement in the Asian region. Moreover, it will be helpful for the sports policymakers in institutions in assessing the social setbacks that proved helpful or challenging in deciding the sports ranking of the winning countries. Moreover, by its finding, the study captures the attention of social development analysts in reshaping social policies for gaining the sport's pride.

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