

The nexus between Public Investment Fund Sports Revenue and economic development in Saudi Arabia

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Abstract: This research is targeted at analyzing the possible impacts of sports investment and sports events. This study discusses the multi-dimensional influences of the Kingdom of Saudi Arabia (PIF) activities concerning sports event sponsorship on tourism revenue, GDP Growth Rate, Foreign direct investment inflows (FDI), and economic diversification. The study employs the "Multiple linear regression model" for data analysis. The analysis is based on secondary data, and the sample incorporates annual time series information covering the period between 2018 to 2023. The results reveal that the coefficient for GDP Growth Rate is statistically significant, while, the coefficients of FDI and Tourism Revenue are not statistically significant at the conventional level. The results indicate that the sports industry positively impacts economic activity. Based on empirical analysis, Saudi Arabia must continue hosting mega-events to support the Vision 2030 plan to diversify the Saudi economy. the paper is intended to give information on the economic landscape of Saudi Arabia and global image production in sports event sponsorships.

Keywords: PIF, Mega events, Sports, Tourism, FDI, Economic Growth.

العلاقة بين إيرادات صندوق الاستثمارات العامة من الرياضة والتنمية الاقتصادية في المملكة العربية السعودية

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المستخلص: تناقش هذه الدراسة التأثيرات المتعددة الأبعاد لأنشطة المملكة العربية السعودية فيما يتعلق برعاية الأحداث الرياضية على إيرادات السياحة ومعدل نمو الناتج المحلي الإجمالي وتدفقات الاستثمار الأجنبي المباشر والتنوع الاقتصادي. تستخدم الدراسة " نموذج الانحدار الخطي المتعدد " لتحليل البيانات. ويعتمد التحليل على بيانات ثانوية، وتتضمن العينة معلومات تغطي الفترة ما بين 2018 إلى 2023. أظهرت النتائج أن معامل معدل نمو الناتج المحلي الإجمالي له دلالة إحصائية، في حين أن معاملي الاستثمار الأجنبي المباشر وإيرادات السياحة ليسا ذو دلالة إحصائية على المستوى التقليدي. وتشير النتائج إلى أن صناعة الرياضة تؤثر على النشاط الاقتصادي بطريقة إيجابية. واستناداً إلى التحليل التجريبي، واستناداً إلى التحليل التجريبي، يجب على المملكة العربية السعودية الاستمرار في استضافة الأحداث الكبرى لتنوع اقتصادها. تهدف هذه الورقة إلى تقديم معلومات عن المشهد الاقتصادي في المملكة العربية السعودية وإنتاج الصورة العالمية في رعاية الأحداث الرياضية.

الكلمات المفتاحية: صندوق الاستثمارات العامة، الأحداث الكبرى، الرياضة، السياحة، الاستثمار الأجنبي المباشر، النمو الاقتصادي.

1. Introduction

Over the past decade, there has been a lot of debate surrounding the impact of mega sports events on economic prosperity in developed and emerging economies. Researchers such as (Preuss, 2000; Pop et al, 2016; Lyu & Han, 2017) support that sports events can increase economic activity since mega-events can increase income generated by tourism. Sports tourism can bring a world full of opportunities since sports travel contributes to an increase in local income. At the beginning of the 21st century, most countries recognize the importance of investment in sport. This is evident in Europe and the United States. In general countries such as China witnessed an increase in the number of tourists due to tourism activities (Golubchikov, 2016). Sport tourism in particular is becoming more and more important. Countries try to use major sports events, and sports clubs as tools to boost development, boost tourism, attract investment, put the country on the map, and accelerate economic growth. According to Whitson & Horne (2006), countries seek to host a mega-event such as the “FIFA World Cup” or the “Olympic Games” to increase the number of tourists visiting the country and increase wealth. Put it shortly, sports serve as a dynamic force that promotes development, but aside from that the right planning is of great importance to ensure that maximum benefits are received.

Quite a few studies investigated the economic impact of sports investment and hosting sports events (Preuss, 2000; Whitson & Horne, 2006; Opolska & Proskina, 2017; Kharchenko & Ziming, 2021). According to Reis et al. (2023), there is a lack of empirical studies that measure the impact of Sports mega-events. Moreover, there has been no literature published in the context of Saudi Arabia. Thus, the main objective of this study is to fill gaps in the knowledge on this subject. This research is targeted at analyzing the possible impacts of sports investment for PIF on the revenue of tourism, diversification of the economy, and its degree of influence on GDP growth.

Recently, Saudi Arabia embarked on becoming a world-class player in international sports. The Kingdom of Saudi Arabia has gained unprecedented global attention by taking this step. The purchase of “Newcastle United Football Club” by Saudi Arabia’s Public Investment Fund (PIF) was the turning point. This large sports investment represents a perfect starting point to enlighten the audience on recreational activities and sports as a fundamental step for diversifying the Saudi economy, making use of public diplomacy, and practicing sports diplomacy which are all the key perspectives currently adopted in Saudi Arabia.

The Kingdom of Saudi Arabia (KSA) experiences a vivid history and cultural richness that is inspired by strong roots in the Islamic religion. However, within the few last decades, the Kingdom had a profound change from the point of a social as well as an economic perspective. For the Kingdom, the diversification of the economy is a central item on its agenda to ensure the sustainable development of the future. Statistics indicate that Saudi Arabia is the second most oil-rich state of all the nations with reserves that constitute slightly more than 16 percent of the gas reserve (Algamdi, 2020). The government acknowledges the importance of a diversified economy. It, therefore, has taken steps through investments in different sectors such as technology, sports, MSEs (mega-sporting events), and foreign direct investments.

Vision 2030 issued in 2016 is considered the strategic approach toward the Kingdom's economic development and public diplomacy campaigns. This innovative plan provides clarity of direction for the nation to switch from dependency on oil to a diversified, knowledge-driven economy (Grand & Wolff, 2020).

The main scope of this study is to investigate the central role of economic impacts of sports investment and hosting sports events. We employ the “Multiple linear regression model” for data analysis. Our analysis covers 6 years, beginning in 2018 to 2023. What is discussed further below is a complex relationship between economic diversification, and sports diplomacy in its operation in Saudi Arabia and understanding the challenges. The findings of this study are important for authorities and policymakers in Saudi Arabia, particularly when deciding whether to host a mega sports event or not.

Research Objectives

- Analyze the possible impact of PIF's sports event sponsorships on tourism revenue in Saudi Arabia.
- Analyze the effectiveness of PIF's sports event sponsorship strategy in achieving economic diversification goals.
- Analyze the correlation between Sports Event Revenue and GDP Growth Rate in Saudi Arabia from 2018 to 2023.

Research Questions

- Is there a statistically significant correlation between Sports Event Revenue and the GDP Growth Rate in Saudi Arabia?

- To what extent do PIF's sports sponsorships attract foreign direct investment (FDI) in Saudi Arabia?
- To what extent do PIF's sports event sponsorships contribute to increased tourist arrivals in Saudi Arabia?

Our research is arranged as follows: Section 2 summarizes existing literature focusing on the role of Sports in Economic Development, tourism, and attracting foreign direct investment. This part gives a glimpse of sports in Saudi Arabia as well. In section 3, the authors present the investigated data and summarize the methodology used in the study. In Section 4, the authors discuss the correlation between the examined variables in addition to displaying and discussing the empirical evidence the findings, and in Section 5 the authors conclude the research paper.

2. Review of the Empirical Literature

Several studies investigated the economic impact of sports investment and sports events. This research is targeted at analyzing the possible impacts of sports investment for PIF on the revenue of tourism, diversification of the economy, and its degree of influence on GDP growth. "Sports Economy" refers to the existence of a large-scale economic interconnection of various sports-related industries bringing in money through ticket sales, advertising, broadcast licenses, and stadium design projects. Hosting mega sports events such as the "Olympics" or the "FIFA World Cup" may bring economic growth, due to the increase in tourism spending, the development of sporting facilities and infrastructure, and job creation.

Kharchenko & Ziming (2021) investigated the association between the development of the sports industry and economic growth in China. The authors analyze information covering the period between 2011 to 2020 by employing mathematical statistics and the VAR model. The results indicate a high correlation between the sports industry and economic activity. Moreover, Opolska & Proskina (2017) investigate the role of the sports industry and mega-sports events on regional and national economies. The research focuses on the impact of "EuroBasket" 2015 Latvia. The authors conclude the importance of sports and sports events in regional and national economies. This view is supported by Studies such as (Whitson & Horne, 2006; Chanaron, 2014). Fourie and Santana-Gallego (2010) study the impact of mega sports events on the number of tourists who visit a particular destination during an event. The study investigated major events such as the Olympics and the World Cup over the period between 1995 and 2006. The authors employ a standard gravity model. Their findings suggest that in general, mega-events promote tourism and host countries witness an increase in the number of tourists during major events. However, an increase in the number of tourists also depends on the type of event and the level of development in the host country.

Recently, Pranata et al. (2023) studied the impact of the sports industry on economic development on a micro and macro basis. The author suggests that a positive association exists between organizing mega sports events and economic development. Likewise, Pop et al (2016) investigate sports tourism and its impacts on economic activity in the BRICS countries. The authors analyze data obtained from the World Bank and the World Tourism Organization. The author suggests a positive association between mega sports events and tourism level. This view is supported by Lyu & Han (2017). On the other hand, Whitson & Horne (2006) agree that the number of tourists may increase during mega-events, however, it is difficult to maintain the same level in the years after the sports event.

Reis et al. (2023) summarize previous literature focusing on the impact of mega sports events. They suggest that there is a lack of empirical studies that measure the impact of Sports mega-events. Others such as Sorrentino et al (2023) studied the impact of sports events and the behavioral consequences of the event. They suggest that satisfaction has a positive impact on tourists returning to the host destination. Widianingsih et al. (2023) investigated the impact of the "F1 Powerboat World Championship (F1H2O) event" on regional economic development in Indonesia. The authors suggest that it is important to focus on non-economic objectives such as socio-cultural and environmental objectives.

In contrast, numerous researchers are skeptical about the benefits of sport tourism. According to Baade & Matheson (2004), significant costs are incurred and associated with mega sport events. The author states that "the economic impact of the event cannot justify the magnitude of expenditures" suggesting that cities that held such events have experienced losses (e.g. 1994 World Cup held in the US). These costs are considered essential for infrastructure, such as the cost of building a stadium or the cost of security arrangements. However, according to De Nooij & Van den Berg, (2017), countries favor hosting events despite any discouraging evidence.

Preuss (2000) argues that major events increase trade and revenue and can put the hosting country on the map. In addition to boosting trade, major sports events can contribute to an increase in foreign direct investment flows (Jakobsen et al, 2013). Jakobsen et al (2013) investigate the impact of hosting sports mega-events on foreign direct investments. The study employs “time-series cross-section” data for countries that hosted the “Olympics”, the “FIFA World Cup”, or the “UEFA European Championship” from 1970 to 2009. The study shows that hosting a football tournament has a positive impact on foreign investment, however, the Olympics have no effect.

The Public Investment Fund (PIF) of Saudi Arabia was founded in 1971 as a sovereign fund to manage the country's oil income, the PIF shapes its investment strategy on long-term sustainability. In the last couple of years, there has been a shift toward a more diverse investment portfolio as it has been transpiring through the objective of Saudi Arabia's Vision- 2030. This national transformation plan which pursues to reduce the nation's dependence on oil and create opportunities for achieving a diversified, knowledge-based economy is given the top priority (Grand & Wolff, 2020). Sports investment plays a crucial part in the Kingdom's vision for 2030. Through the event investment fund activities, the kingdom will enhance its infrastructure in the sports industry and reach excellence in sports both regionally and internationally, this in turn will position Saudi Arabia as an international sports hub. The international sporting landscape went through immense changes due to the emergence of Saudi Arabia, which is now considered a major voice in the multinational sporting landscape. According to the Guardian (2023), since early 2021 the Kingdom has spent at least USD 6.3 billion on hosting international sporting events and sports deals. According to Reda & Viviez (2021), this will have a direct impact on economic growth and will increase the level of tourism in Saudi Arabia. Through sports, Saudi Arabia is an example of how the country is breaking down the obstacles preventing it from advancing. Supporting Vision 2030, the kingdom is set to host prestigious events that will redefine the landscape of sports. This can be seen from their highly interactive hosting of big sports games, e.g., the 2029 Asian Winter Games, the 2027 AFC Asian Cup, the 2034 FIFA World Cup, Endurance Cup 2024, The Saudi Cup 2024, LIV Golf, Saudi Arabian Grand Prix 2024 and many other upcoming events. Furthermore, the massive fortunes of European clubs and media brands are the fuel for this objective to be accomplished.

Davis et al. (2023) explore the LIV Golf Series focusing on the strategy adopted by Saudi Arabia. In the beginning PIF, Saudi Arabia's Public Investment Fund (PIF) came up with this new breakaway golf tour. Such an initiative certainly did attract a sizable amount of interest. Despite the obvious fact that money is a major reason for golfers to join the tour, Davis et al. (2023). However, researchers identified the significance of other golfers' ambitions and objectives. Among these are the need for more control over their playing time and schedules, the opportunity to spend more time with their family, and the power of growing the scope of the game to include others. Moreover, the Public Investment Fund took over four of the country's top teams with many stars joining the teams. Cristiano Ronaldo, the highest-paid striker ever, and others joining Saudi Arabian clubs have been a game changer and a brilliant strategy of utilizing financial muscle to get top players and attract attention to the Saudi league. Others such as Neymar and Karim Benzema have recently moved to Saudi Pro League teams.

3. Data and Research Methodology

To highlight the nexus between sports events revenue and tourism revenue, Economic development (GDP growth), and Foreign Direct Investment Inflows, the authors developed quantitative research based on available data over a 6-year period in the context of Saudi Arabia. Due to the nature of the research, the analysis is based on secondary data. The sample incorporates annual time series information covering the period between 2018 to 2023. A multiple-method approach will be applied to acquire a whole set of knowledge about this problem. Sport Revenue data in Saudi Arabia is compared to other economic indicators such as GDP growth rate, as well as other relevant indicators (tourist revenue, foreign direct investment). Some of the Sports Revenue in Saudi Arabia data is taken from online resources such as Statista Market Insight and Reda & Viviez, (2021). Saudi GDP Growth Rate will be used as a benchmark for economic growth, where the data is obtained from the World Bank. Other relevant economic indicators tourism revenue and foreign direct investment (FDI) data are also obtained from the World Bank.

The selection of variables and the study period were dictated by data availability. Table 1 shows the descriptive statistics for Sports revenue, GDP growth, tourism revenue, and foreign direct investment inflows. The table reports statistics for all variables under examination, along with means, min, max and number of observations. As seen in Table 1, the descriptive statistics indicate no randomness in the data.

Table 1: Descriptive Statistics for the variables under examination

Variable	Observation	Mean	Minimum	Maximum
Economic Growth	6	3.36	-4.3	8.7
Sports Event Revenue	6	2233.33	900	3100
Tourism Revenue	6	20991.83	3924	39950
Foreign Direct Investment Inflows	6	16131.66	1620	28780

This paper was inspired by Prijs (2018), Tien et al. (2011) and Jakobsen et al. (2013). This study builds on existing literature that investigates the link between sports events revenue and economic development (Pop et al., 2016; Roche et al., 2017; and Opolska et al., 2017). The paper analyses the economic impact of sports investment for PIF on the revenue of tourism, diversification of the economy, and its degree of influence on GDP growth in the context of Saudi Arabia. There are four variables included in this study which are Sports revenue, GDP growth, Tourism revenue, and Foreign Direct Investment inflow. This study carried out Multiple Linear Regression (MLR) using Stata statistical software to evaluate the relationship between GDP, tourism revenue, and FDI on Sports revenue. Figure 1 shows a conceptual framework for this study.

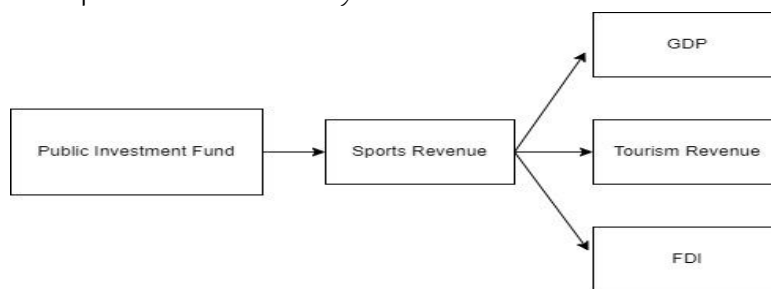


Figure 1: Theoretical Framework

The regression analysis will be utilized to explore possible trends and associated relationships between the mentioned variables in the model. Sports Revenue in Saudi Arabia will be the dependent variable as we are interested in how it influences economic indicators. GDP Growth Rate in Saudi Arabia, Tourism Revenue in Saudi Arabia, and Foreign Direct Investment (FDI) in Saudi Arabia are the independent variables. The relationship between Y and X1, X2, and X3 is formulated by multiple linear regression model as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \tag{1}$$

Where Y represents Sports revenue and Xi's are the different predictors of sports revenue. β_0 , β_1 , β_2 , and β_3 , are constants referred to as the regression coefficients of explanatory variables and ϵ is the error (residual). In our analysis, we use equation 1 to examine the economic effect of sports investment on Saudi economic growth, FDI, and level of tourism. In connection with the previous discussion, the empirical model is expressed as follows:

$$\text{Sports Event Revenue} = \beta_0 + (\beta_1 * \text{GDP Growth Rate}) + (\beta_2 * \text{Tourism Revenue}) + (\beta_3 * \text{FDI}) + \epsilon \tag{2}$$

In the regression model, the dependent variable is Sports Event Revenue, while the remaining variables (GDP Growth Rate, Tourism Revenue, and FDI) are independent. Table 2 shows the list of independent variables under examination and the expected relationship.

Table 2: List of Explanatory Variables

Variable	Expected Relationship	Definition
GDP Growth	+	GDP growth is measured by the annual GDP growth rate. Refer to the profitability and productivity of a country. A positive association is expected since sports can act as a new source that adds to economic growth. (Kharchenko & Ziming 2021). The expansion of sport-related activities can increase consumer spending and infrastructure development which consequently increase the overall GDP.
Tourism	+	A positive association is expected since sports events can attract tourists. According to

Variable	Expected Relationship	Definition
Revenue		Gibson et al. (2012), an increase in travel demand and hotel booking is associated with sports events since fans come from all over the world to witness the events.
Foreign Direct Investment	+	Measured by Foreign direct investment inflows (FDI). A positive association is expected since mega sports events can attract FDI. According to Ratten & Ferreira, (2017), sports sponsorships are perceived as marketing tools by governments which in turn will increase FDI.

(Kharchenko & Ziming, 2021; Gibson et al., 2012; Ratten & Ferreira, 2017)

4. Empirical Evidence and Discussion

The expansion of different sport-related activities leads to increased consumer spending, job creation, and infrastructure development which consequently increases the overall GDP. As seen in Figure 2, the correlation between the sports revenue and GDP growth in Saudi Arabia gives us an indication of the fact that the top sector's revenues go into the country's economy and therefore increase economic growth. The local economic activity is stimulated via hospitality, tourism, and income from ticket sales, and thus directly affects the GDP. The crucial role of sports sponsorship in achieving consumer engagement and increased visibility eventually contributes to the country's economic prosperity (Chadwick & Burton, 2019).

In Keynesian economics and consumption theory, one can find a way of seeing how sports revenue and Saudi GDP growth are related. Sports events can make people spend more money on going or buying tickets to events supporting their teams by their merchandise purchases and actively participating in sports events (Bradbury, 2021). This fiscal measure ensues in the supply of cash in the economy whose velocity is thus stimulated encouraging growth. This follows the Keynesian principles which focus on consumption as the main GDP determinant (Coddington, 1976). Chadwick (2018) adds that sports sponsorships are the leading factor in raising consumer engagement which can ultimately lead to increased consumer spending and economic growth.

Figure 3 shows a connection between international sports revenue and foreign direct investment (FDI), which suggests that this sector is a magnet for inflows of foreign capital funds. Literature such as (Jakobsen et al, 2013) supplies evidence in line with this linkage, thus, sports-packed countries usually have increased FDI. Sports can attract organizations and individuals from other countries with the specific goal of taking advantage of sports-related activities. Therefore, when hosting key sporting events, such as the "Olympics" or "FIFA World Cup", the host country's infrastructure, hospitality, and tourism potential, can attract FDI to a great extent (Coates & Humphreys, 2012). Sports sponsorships play an instrumental role in lifting the nation's reputation, this will attract foreign investors and audiences who will tap into the growing sports market (Ratten & Ferreira, 2017). Consequently, the sports revenue is related to foreign direct investment.

The sports sector bringing economic growth to Saudi Arabia can attract FDI through the implementation of Location Theory. The sports industry with its vitality can show foreign investors that they will be investing in an economy that is well-developed and prosperous (Coates & Humphreys, 2012). As developed by the Location Theory, the positive externalities associated with such high-visibility events add value to the location, and this markedly improves its appeal for foreign investment. In addition, Coates & Humphreys, (2012) indicated the fact that by presenting the country as a place boasting improved infrastructure, hospitality, and tourism potential, the major events, such as the "Olympics" or "FIFA World Cup", often contribute significantly to FDI. Ratten & Ferreira, (2017) also assert that sports sponsorships are perceived as marketing tools by governments because they have a positive impact on their country's reputation, the influx of foreign investors, and global markets according to the growing popularity of sporting activities.

Moreover, Figure 4 shows that Sports revenue and tourism revenue stand as signs of the fact that sports events are considered important attractions for tourists. Staging major championships, tournaments, and races as well as competitions can attract a universal audience, which is indeed a direct way of increasing the number of tourists as well as spending in the host country or city (Gibson et al., 2012). The inflow of sports revenues in Saudi Arabia would undoubtedly be impacted by the level of tourism. There is an associated travel demand and hotel booking for major events since fans come from all over the world to witness the events (Gibson et al., 2012). This supports the primary tenet of Derived Demand Theory, which suggests that demand for a product or service (i.e. tourism and accommodation) is derived from the demand for another product or service (watching a sports game in person). Over and above,

the tourist spending involved in these occasions has a great deal of meaning for the tourism sector as far as this is concerned. And more, the effect of this spending also builds up the multiplier factor that takes the other sectors into account. These sectors are restaurants, transportation, and retail (Gibson et al., 2012). Thus, one can say that sports events can influence tourist destination choices and may present a potent opportunity for Saudi Arabia to use its sporting events to attract tourists as well as stimulate various sectors of the economy.

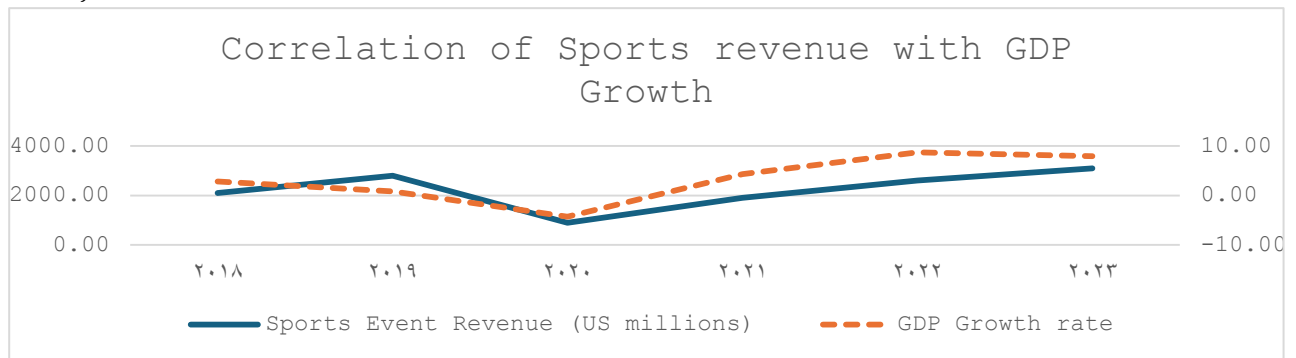


Figure 2: Sports Revenue and Saudi Arabia's GDP (2018-2023)

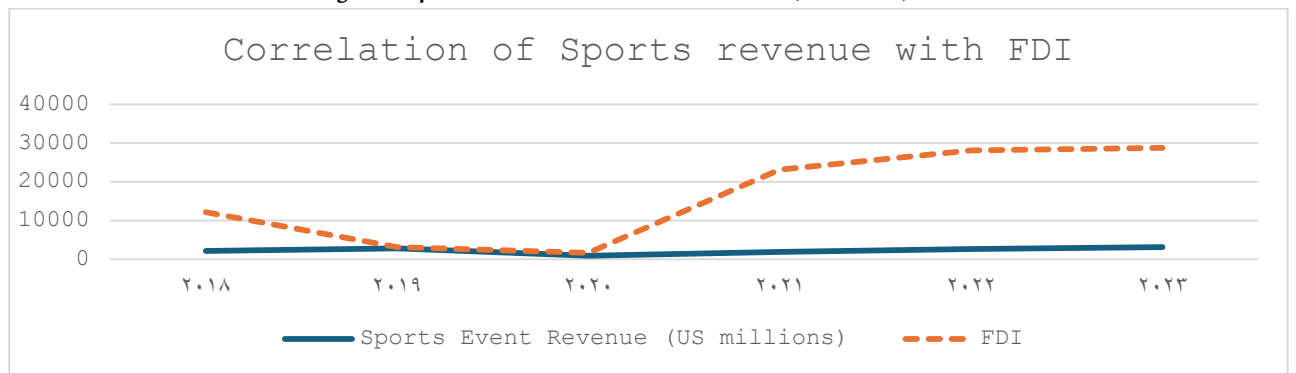


Figure 3 Sports Revenue and Foreign Direct Investments (2018-2023)

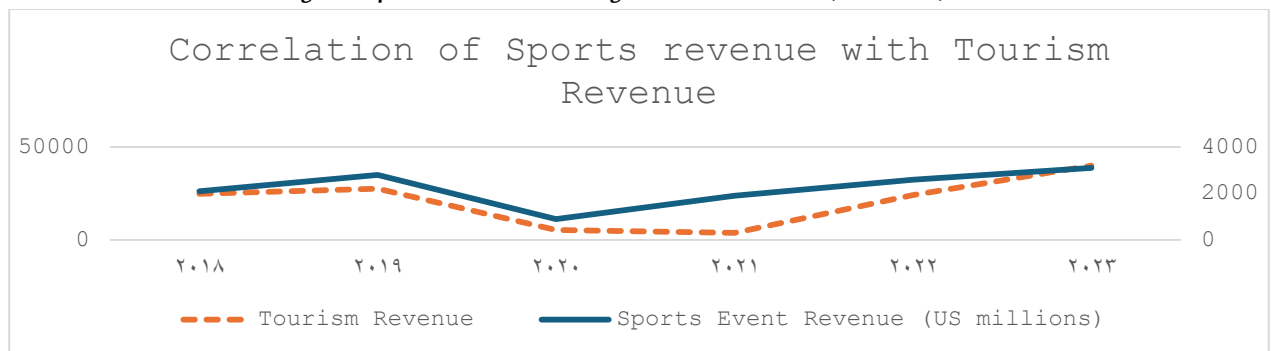


Figure 4 Sports Revenue and Tourism (2018-2023)

Table 3 presents the summary of the regression analysis. Table 4 summarises statistics for all variables under examination, including GDP Growth rate, FDI, and Tourism Revenue, along with R-squared and adjusted R-squared statistics. Table 4 reveals the possible link between Saudi Arabia's sports investments, which can be measured by Sports Event Revenue, and economic development. The model shows a positive correlation between the independent variables and the dependent variables, so, as economic development increases, the number of sports events will also be. The R-squared is equal to 0.9202, nevertheless, the adjusted R-squared (0.8004) shows the model's explanatory power might be inflated because of the number of dependent variables that are in the model.

The coefficient for GDP Growth Rate (257.24) states that there is a positive and significant relationship between Sports Revenue and economic development. This suggests that higher economic development may result in greater investment in sports events. Nevertheless, it might be that the main sports events are also the reason for the economic growth, the increase of tourism, or the construction of the infrastructures. The increase in the number of sport-related activities leads to increased consumer spending, job creation, and infrastructure development which consequently increases the overall GDP. The results prove the crucial role of sports

sponsorship in achieving consumer engagement which will eventually contribute to the country's economic prosperity (Chadwick & Burton, 2019). Our results coincide with Kharchenko & Ziming, (2021), Whitson & Horne, (2006), and Chanaron, (2014).

The coefficients for FDI (- 6.92) and Tourism Revenue (0.02365) are not statistically significant at the conventional level (p-value > 0.05). This means we cannot definitively conclude that these variables have a direct impact on Sports Event Revenue in this model. This could be because of the reasons that are not associated with the model, such as the shortcomings in the data, or the complexity of the connection between sports investments and FDI and tourism.

Despite the negative results for FDI, Sports events could attract organizations and individuals from other countries. Sports sponsorships play an instrumental role in lifting the nation's international reputation to attract foreign investors and audiences who intend to tap into the growing sports market that ears worldwide (Ratten & Ferreira, 2017). Preuss (2000) argues that major events increase trade and revenue and can put the hosting country on the map. In addition to boosting trade, major sports events can contribute to an increase in foreign direct investment flows (Jakobsen et al, 2013).

As for Tourism Revenue, the positive sign indicates that Staging major championships, tournaments, and races as well as competitions can attract a universal audience, and increase the number of tourists arriving in the host country. According to Whitson & Horne (2006), countries seek to host a mega-event such as the "FIFA World Cup" or the "Olympic Games" to increase the number of tourists visiting the country and increase wealth. Thus, hosting mega-events is indeed a direct way of increasing the number of tourists as well as spending in the host country or city (Gibson et al., 2012).

The regression analysis is the roadmap to the discovery of the possible connection between Saudi Arabia's sports investments and its economic development. It is evident that the strong correlation points out a new field for research, however, the lack of statistical significance (FDI and tourism) and the limitations of regression analysis should be considered in the further understanding of this complicated issue.

Table 3: Summary of estimation of the impact of the factors under investigation.

Variable	Coefficients	t Stat	P-value
Economic Development (GDP Growth Rate)	257.24	1.65*	0.240
Foreign Direct investment inflows (FDI)	- 6.92	- 1.28	0.329
Tourism Revenue	0.02365	0.79	0.512
constant	2118.27	2.91	0.100
R-squared	0.9202		
Adjusted R-squared	0.8004		

Note: *denotes that coefficients are significant at the 10% level, ** denotes that coefficients are significant at the 5% level, and * denotes that coefficients are significant at the 1% level.**

Nonetheless, economic diversification remains a crucial component of the sustainable development of Saudi Arabia as its past was highly dependent on oil. Thus, economic diversification in Saudi Arabia is paramount, this is done through investments in different sectors such as sports and many more. The aim is to create new income channels, create employment opportunities, and stimulate economic growth. In addition to economic diversification and investment returns, Saudi Arabia's Public Investment Fund (PIF) contributes to the enhancement of the nation's image and the value that resides within it. Al-Rumayyan, Head of the PIF stresses that financial returns matter but non-financial results such as sports ventures, for instance purchasing Newcastle United, and investing in LIV Golf, can also provide benefits in strategic investments. Moreover, Ettinger (2023) argues that through sports diplomacy, Saudi Arabia seeks not only short-term interests in diversifying the economy and reform but also tackles the goals set by Vision 2030 which in the long run will gather the support of the population leading to social satisfaction and stability.

PIF's sports investments such as the buy-out of Newcastle United and the financial support scheme for Liv Golf, are the tools of Saudi Arabia's sports diplomacy that improve the kingdom's standing in the world and thaw its reputation, cultivated primarily by the oil industry (Murray, 2018). Such efforts are concerned with achieving the Vision 2030 strategy which intends to present Saudi Arabia as a world investment pole and the meeting point between continents. Moreover, via the Saudi Roshn Professional Football League, as well as by creating partnerships with globally recognized sports personalities, KSA is incorporating sports into the strategy of economic diversity and branding on an international scale.

5. CONCLUSION

Numerous countries recognize the importance of investment in sports and hosting sports mega-events. Countries such as China and Russia have recognized the importance of tourism in stimulating economic prosperity (Golubchikov, 2016). Countries try to use major sports events, and sports clubs as tools to boost development, boost tourism, attract investment, put the country on the map, and accelerate economic growth. Studies such as (Preuss, 2000; Whitson & Horne, 2006; Opolska & Proskina, 2017; Kharchenko & Ziming, 2021) investigated the economic impact of sports investment and sports events. However, there has been relatively little literature published in the context of Saudi Arabia. Thus, the objective of this research is to analyze the impacts of sports investment for PIF on the revenue of tourism, diversification of the economy, and its degree of influence on GDP growth.

This paper examines the association between sports investment for PIF on the revenue of tourism, FDI, and its degree of influence on GDP growth. For data analysis, we employ the Ordinary Least Square regression model. The analysis incorporates information in the context of Saudi Arabia covering the period between 2018 and 2023. The results reveal that the coefficient for GDP Growth Rate is significant, while, FDI and Tourism Revenue are not statistically significant at the conventional level. This means we cannot definitively conclude that these variables have a direct impact on Sports Event Revenue. However, it is evident that there is a correlation between the variables which points out a new field for research, however, the lack of statistical significance and the limitations of regression analysis should be considered in the further understanding of this complicated issue. There are, in fact, some limitations that are worth noting, for example, the targeted period (2018-2023) could turn out to be too restrictive to reveal the long-term economic impacts of the expansion in the world of sports. For future research, we suggest extending our research to include a larger time period, which will show a more comprehensive spectrum of the elements. The findings of this study are important for authorities and policymakers in Saudi Arabia, particularly when deciding whether to host a mega sports event or not.

Saudi Arabia must work toward increasing and diversifying GDP to promote economic development. As discussed previously, the analysis shows that hosting mega sports events contributes in a positive way to economic development. The expansion of different sport-related activities leads to increased consumer spending, job creation, and infrastructure development which consequently increases the overall GDP. Based on empirical analysis, Saudi Arabia must continue hosting mega-events to diversify its economy. Till now, Saudi Arabia has made significant progress in achieving "Vision 2030" objectives. The Saudi PIF's considerable investments, specifically in the sports industry, mean a deliberate push by the kingdom to boost itself as a great sports hub, which will create a diversified economy moving from oil dependency using involved sports diplomacy aimed at engaging and exchanging cultures on an international level. Although sports diplomacy is not a new issue, the way Saudi Arabia goes about it, blended with the economic restructuring effort; is distinctive. Through sports, and specifically sports sponsorship, the country is not only rebuilding universal knowledge about the country but also channeling new occupation channels for economic development and growth.

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