THE ECONOMIC CONDITIONS AND SPORTS IN DEVELOPING COUNTRIES: A CASE STUDY OF PAKISTAN

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Abstract

The economic conditions and sports participation in developed countries has been studied extensively. For a number of countries in the developed world, it has been reported that economic conditions have a direct impact on participation and performance in various sports (Black et al., 2002). However, there has been no significant study conducted to assess the effects of economic conditions on sports participation in the developing world. The aim of this study was to fill that void and ascertain the impact of economic conditions on high performance sports in Pakistan, and the underlying reasons for the decline of sports in the country.

Pakistan’s participation & performance at the Asian games have been used as a basis for the study. Moreover, studies that have assessed the teaching of physical education in Pakistan have also been reviewed to identify issues with sports participation (Sarwar et al., 2010). Decline of sports participation of children in Secondary Schools, utilization of Sports Funds & availability of Sports

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Facilities was also considered to identify reasons for decline in performance. Data relating to available resources such as physical education teachers employed and utilization of funds for sports was taken from National Sports Policy of Pakistan 2005, and used to test and validate various hypotheses under consideration.

The results show significant decline in the performance of Pakistan at the Asian games from 1950 to 2000 (p < 0.05) along with negative relationship with economic conditions of Pakistan. It was noted that only 48% schools had access to physical education teachers. Out of these schools it was found that 40% schools were not utilizing the funds fully, for physical education and 50% school did not have facilities for indoor / outdoor games / sports. The analysis of economic conditions in Pakistan and participation in sports showed that there was no significant relationship between the economic conditions and performance in sports. These results suggest that in order to stem the decline in sports performance, focus should be on grass roots level activities in schools, implementation of systematic and scientific coaching, long term planning and upgrading our competition and monitoring system in addition to provisioning of sports facilities at all levels.

**Keywords:** GDP, Sports participation, Developing countries, Performance indicators
Introduction

The researchers always try to find out the answer of the key factor of performance at international level like to have a large population, financial resources, culture and social social resources and studies direct the condition of UK, USA and Australia (Kiviaho & Makela, 1978; Bernard & Busse, 2004; Andreff, 2001; Johnson and Ali, 2004). The medal count table is considered as depended variable and socio-economic two macro-economic variable GDP and population are considered relative variable with the success in the sports (Condon et al., 1999; Tcha & Pershin, 2003; Bernard & Busse, 2004; Hoffmann et al., (2002)

The above mentioned facts are not applicable to all countries. Especially under developed. In this paper, we explore the influence of population and participation at the international level, GDP, a local Physical Education system of Pakistan. As such there is not a large number of participation of Pakistan at Olympics level competition that’s why to access the performance and participation the performance of Pakistan in Asian games has been considered Performance.

Population, participation and performance in Asian games

The countries which have relatively large populations provide a wider pool of athletes to compete in competitions Johnson and Ali, (2004). Therefore, to predict the performance of teams in the Olympics the population and Olympics model was presented by (Ball, 1972). This equation has been defined as a predictor of medals according to the number of athlete's participating in the Olympics.

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E(\text{medal share}_{it}) = \frac{\text{medals}_{it}}{\sum_j \text{medals}_{jt}} = \frac{\text{population}_{it}}{\sum_j \text{population}_{jt}} = \text{pop share}_{it}
\]

(Ball, 1972)

This equation has been tested by (Grimes et al., 1974) and found participation in Olympics positive and the results of medals found
negative. To justify this condition it has been discussed that some countries has increased participation in team events which reflect the high number of participants, but In team event there is only one medal, which is equal to the one individual athlete performance, so that this equation doesn't present always reflect the number of participations in Olympics and the performance of athletes.

In the light of above factor we studied the situation in Pakistan. The general population growth by years, the participation in Asian Games and the performance of Pakistan in Asian games has been selected because Pakistan doesn't meet the qualify criteria of the Olympics in majority Sports. The data on population growth were adapted from Martin, 2015. The data of participated was collected from the Pakistan Sports Board; however the participation data of 1970s Asian games was not available. The Medals won by Pakistan was collected from the Olympic Council of Asia (OCA). The medal table and participation data is the combination of games held in different decades from the 1950's to 2000's and the number of medals is a combination of all Gold, Silver and Browns.

The results show that the population of Pakistan and the participation of Pakistan in Asian games significantly increased from the 1950's to 2000's (p <0.05) and the number of medals is significantly decreased (p <0.05) Fig. The model of Ball, 1972 is also rejected in the case study of Pakistan because the performance in Asian games decreased even the number of Participation in Asian games increased.
The Spearman's non Parametric test has been used to find out the relationship between Asian Games medals, Participation and Population of Pakistan. There is a strong negative correlation has been found between medal won by Pakistan in Asian games with the Population of Pakistan $r = -0.899$, which indicated as the population of Pakistan increased the performance of Pakistan decreased, which is against the trend Fig 2. The same negative strong correlation has been found between Asian games medals and number of participation of Pakistan players in Asian games $r = -0.9$, Its also reflect that as Pakistan increased the participation in Asian games got less medals Fig 3. Above mentioned results indicated the population of Pakistan and the participation of Pakistan don't have positive impact it's had a negative impact so the other factors has been considered to find out the problem. Kuper and Sterken(2001) also indicated that only wealthy countries are able to allocate sufficient fund to develop sports. In this regards the effect of GDP of Pakistan and its impact on the sports performance has been reviewed in the next section.

![Graph showing Population, Participation and Medals in Asian Games](image-url)

**Fig 1:** Population of Pakistan, Participation and Medals won in Asian games by Pakistan
In this paper, we explore the influence of GDP on the performance of Pakistan in Asian games besides this we found out the basic factor, which is the key root problem in the Pakistan in the reduction of physical activities in the society.(Shah et al., 2015)
GDP and Sports performance of Pakistan

In this section, we explore the influence of GDP on the performance of Pakistan in Asian games. Except population and participation the GDP has been considered another parameter to predict the Olympics medal achievement Bernard and Busse (2004). Johnson and Ali, (2004), Churilov and Flitman, (2006) also indicated the GDP is the important factor to predict the performance of the country in the Olympics, sports. The economic sources have important consideration in the performance of sports in any country (Manuel & Fadal., 2011). In keeping the view of above literature the analysis of Pakistan GDP from 1950 to 2000 has been done to find out the impact on Pakistan GDP on the performance of Pakistan in sports

The variable of sports performance has been kept same as it were compared with the population and the participation of Pakistan in Asian games. The GDP data have been used from Husain, I. (2010). There is no significant change we can see in the GDP of Pakistan its fluctuations between 3.5 to 6.8 Fig 4. When we compare the results for Asian games from the 1950’s to 2000’s, we can see the continuous decline in the performance till 1980’s; where GDP was 6.5 and total number of medals won by Pakistan was 20 but in 1990’s the performance of Pakistan get better and won 24 medals in Asian games but the GDP reduced from 6.5 to 4.6 and same trend we can see in 2000’s the GDP was 5.4 but the performance reduced at 17 medals. So the significant reduction has been found in performance, but not in the GDP of Pakistan. So the model to predict the performance of country in the Olympics not fit to the data which shows in Fig4.
Figure 4: Asian Games Medals and GDP comparison

The Spearman's non Parametric test has been used to find out the relationship of GDP and Performance of Pakistan in Asian games. There is so weak negative relationship $r = -0.39$. Which indicates the performance of Pakistan have no such relation with the DP as shown in Fig 5.

Figure 5: Relationship of Pakistan GDP and Asian Games medals
The performance in sports is not only based on above factors it’s also based on the sports organizations, policies and politics (de Bosscher et al., 2006). To find out the root cause of decline in Pakistan sports performance, we looked at the physical education management status in the public sector.

Physical education status

The children's first time expressed the physical activities in the school from the age of 11-13 (e.g. Curtner-Smith, 1999; Green, 2002; Penney and Evans, 1999) ‘The individual player who reached the top of performance, he goes through from these three stages Early, Middle And latter (Bloom, 1985). This stage has been widely discussed in literature. In early phase children from 7-12 age groups they participate in the large range of activities with the objective of fun and, enjoy not training. The middle phase starts from 13 – 15 years, in which the range of activities reduced, but it transferred from enjoyment to training, and competition. In this age children start to enjoy winning. After 15 years children act in three different ways, either they drop out the sports, take sports as recreation or focus on intensive or competitive sports which leads to performance. (Côté & Hay, 2002), so the root of performance of sports in Physical education in the school sector which lead to performance.

The above literature shows the general structure of development of children, which leads to the high performance athletes. In keeping the importance of athlete development phase it has been found that the great route level is physical education in school.

To find out the status of physical education a study of Sarwar, et al., (2010) has been taken in count. As Pakistan 182 million, in 2015, so it was difficult to make the large study without the consideration of government or research organization. However, we can have an overview of Physical education status in the school in this regards a city with middle population and resources Gujranwal was chosen.
Gujranwala is a fifth largest city in Pakistan with a population of 4.6 Million, of which 1.9 Million is urban and 2.7 Million is rural, 51% male and 49% of the population is female.

There are 44% school are for female and 56 % school are far male, which are appropriate, do there is no big problem to have a number of schools according to gender Fig 6. The alarming condition is the number of physical education teacher only 44 % school has Physical education teachers, which reflects only 56% school don’t have physical activities for the children Fig 7. The reason why the model of the population is not fit in Pakistan is that the population of countries increased, but the population doesn’t have an excess to the physical activities or sports.

**Fig6: percentage of school according to gender**
Fig 7: Physical education teacher position in schools

The population model failed, we understand from the above data, now we will look at the impact of GDP. More than 60 schools don’t have the funds. About 50 % don’t have plying space and about 38 % schools doesn’t have facilities Fig.8. From this statistic we can understand why the model of GDP is also not fit to predict the performance of Pakistan. It doesn't matter what the GDP. If the funds are not provided or used, space and facilities are not available it not make any relation that the GDP of Pakistan can effect on the performance of Pakistan sports at international level.

Fig8: Staus of Physical education in Gujranwal Schools
Conclusion

As this is the case study of Pakistan. The predator of Population, participation and the performance Pakistan in Asian games and the influence of GPD have a negative impact. The reason is that the grass root level structure is miss managed and has been ignored in a country, lack of physical activities, infrastructure and fund has not been utilized and managed because of that the increase of population made negative impact and the distribution and utilization fund also have the same status due to that the DP of the country not effect on the Sports sector of Pakistan. It is recommended to do research around the country to find out the status of physical activities in the school, fund and the defined policy should be made to get the befit of population and DP of Pakistan in sports

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