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Analysis on the Performances of Ethiopian and Kenyan athletes in IAAF Cross Country Championships

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Abstract

The purpose of the study was to analyse the performances of Ethiopian and Kenyan athletes in IAAF World Cross Country Championships. It was hypothesised that there may be significant differences in performances of Kenyan male athletes than Ethiopian male athletes in the IAAF World Cross Country Championships and there may not be significant differences in performances of Ethiopian female athletes than Kenyan female athletes in IAAF World Cross Country Championships. The data collected for this study were through secondary sources and the census sampling was considered for collecting data. In order to find the differences in performances of these two countries, descriptive statistics and t-test were employed by Excel 2016 statistical tool packages. The results of the study showed that Kenyan male athletes performances were higher than Ethiopian male athletes performances in IAAF World Cross Country Championships and the Ethiopian female athlete's performance were higher than Kenyan female athletes performances in the Cross-Country Championships. Finally, the overall performances of Kenyan and Ethiopian athletics team showed the equal performances in IAAF World Cross Country Championships.

Keywords: Ethiopia, Kenya, Performances, Cross Country Race.

Introduction

It's a well-known fact that Ethiopians and Kenyans fixed the foot path strongly in distance races especially middle and Long in International arena. The countries have its own unique nature to produce the best runners in Olympics, World Championships, World Cross country races and other International events too. The training environment have its own demographic and biological merits viz. an elevation of 2000 meters above from sea level, obviously which favours for endurance athletes and the morphology of athletes are gifted by birth itself. Since 1990s, the globe observes the rise of North and East African runners in long distance events which witnessed the birth of a new rising star in the field of long distance running (Jayaraman, 2016).Kenyan and Ethiopian athletes, in particular, have since remained dominant in these events. Many factors have been proposed to explain the extraordinary success of the Kenyan and Ethiopian distance runners are predetermined physiology, genetics, nutritional aspects, strong morphological factors, well balanced psychological set up, scattered talents and most importantly an urge to boost their economic background. (Wilber RL, and Pitsiladis YP, 2012).

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IAAF World Cross Country Championships is the most important competition in international cross country running. Held annually and organised by International Association of Athletics Federations (IAAF), it was inaugurated in 1973, when it replaced the International Cross Country Championships. It was an annual competition until 2011, when the IAAF changed it to a biennial event. Traditionally, the World Cross Country Championships consisted of four races: one each for men (12 km) and for women (8 km); and one each for junior men (8 km) and for junior women (6 km). Scoring was done for individuals and for national teams. In the team competition, the finishing positions of the top six scorers from a team of up to nine are summed for the men and women, respectively, and the lowest score wins. For the junior races, the top three from a team of up to four are scored. (Wikipedia, 2016)

In an incredible show of dominance, the senior men's team race has been won by Ethiopia or Kenya every year since 1981 in both the short and long races. These nations have enjoyed a similar strangle-hold on the junior men's races since 1982. In the senior men's 12 km race, Kenya won the world championships for an astounding 18 years in a row, from 1986 through 2003, a record of unequaled international success. Likewise, on the women's side, only one other nation has won the long team race since 1991: Portugal, in 1994. These African nations were not quite so dominant in the short races, but they have won every women's junior race since its introduction in 1989. (Wikipedia, 2016)

Objectives

1. The first objective of the study was to analysis the performances of Ethiopian and Kenyan male athletes in IAAF World Cross Country Championships.
2. The second objective of the study was to analysis the performances of Ethiopian and Kenyan female athletes in IAAF World Cross Country Championships
3. The third objective of the study was to analysis the performances of Ethiopian and Kenyan athletics teams in IAAF Cross Country World Championships.

Methodology

The source of data for this study was exclusively secondary data. It means all the data collected and used for this study were the e- sources. The census sampling method was used to collect data. The data were collected based on three categories such as Ethiopian and Kenyan male performances at IAAF Cross Country Championships, Ethiopian and Kenyan female Performances IAAF World Cross Country Championships, Combined Ethiopian and Kenyan athletic team performances at IAAF World Cross Country Championships.

Statistical Analysis

The descriptive statistics and t-test were used as statistical tools to find out the significant differences between Ethiopia and Kenya. The Level of significance was set at 0.05 for testing the significance differences if any. The Excel 2016 statistical tool packages were used to find the differences in performances of these two East African countries.

Analysis of the study

Table 1

The Performances of Ethiopian and Kenyan males at the IAAF Cross Country Races Since 1981 till 2015

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	15	8	10	33	11	3.61		
Kenya	19	21	21	61	20.33	1.15	-4.30	2.78

Significant at 0.05 level

Table 1 shows that the total no. of medals received by Ethiopian males are 33 whereas 61 for Kenyan team. Thus, the mean and standard deviation of two countries are 11 and 3.61 and 20.33 and 1.15. Since, the computed T-value is greater than the table t-value, it is clearly indicated that there was a significant difference in the performances of Kenyan male athletes and Ethiopian male athletes. The result evidently presented that Kenyan male athletes performances were higher than the Ethiopian male athletes at IAAF World Cross Country Races.

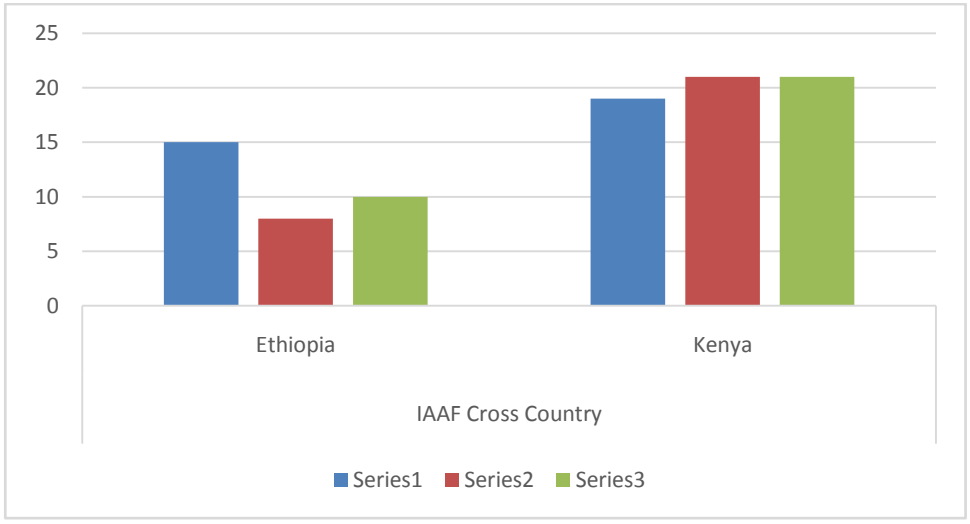

Figure 1

The Performances of Ethiopian and Kenyan male athletes at IAAF Cross Country Races

Table 2
The Performances of Ethiopian and Kenyan female athletes at the IAAF Cross Country Races

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	13	13	14	40	13.33	0.58		
Kenya	10	6	10	26	8.67	2.31	3.40	2.78

Significant at 0.05 level

Table 2 displays that the total no. of medals obtained by Ethiopian females are 40 whereas 26 for Kenyan team. Thus, the mean and standard deviation of two countries are 13.33 and 0.58 and 26 and 8.67. Since, the computed T-value is greater than the table t-value. Hence, it is clearly shown that there was a significant difference in the performances of Kenyan female athletes and Ethiopian female athletes. So, the result presented that Ethiopian female athletes performances were higher than the Kenyan female athletes at IAAF World Cross Country Races.

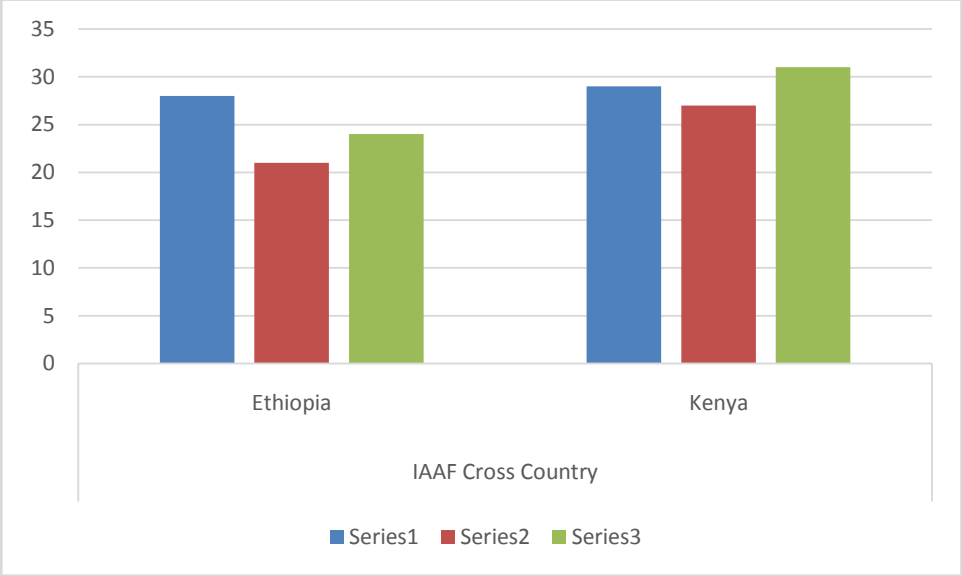

Figure II
The Performances of Ethiopian and Kenyan Female athletes at IAAF Cross Country Races

Table 3
The Performances of Ethiopian and Kenyan athletic team at the IAAF World Cross Country Championships Since 1981 till 2015

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	28	21	24	73	24.33	3.51		
Kenya	29	27	31	87	29.0	2.00	-2.00	2.78

Significant at 0.05 level

Table 3 shows that the total no. of medals achieved by Ethiopian team are 73 whereas 87 for Kenyan team. Thus, the mean and standard deviation of two countries are 24.33 and 3.51 and 29.00 and 2.00. Since, the computed T-value lies in the range of the table t-value, there was no significant differences in the performances of Ethiopian and Kenyan athletic team at IAAF Cross Country Championships.

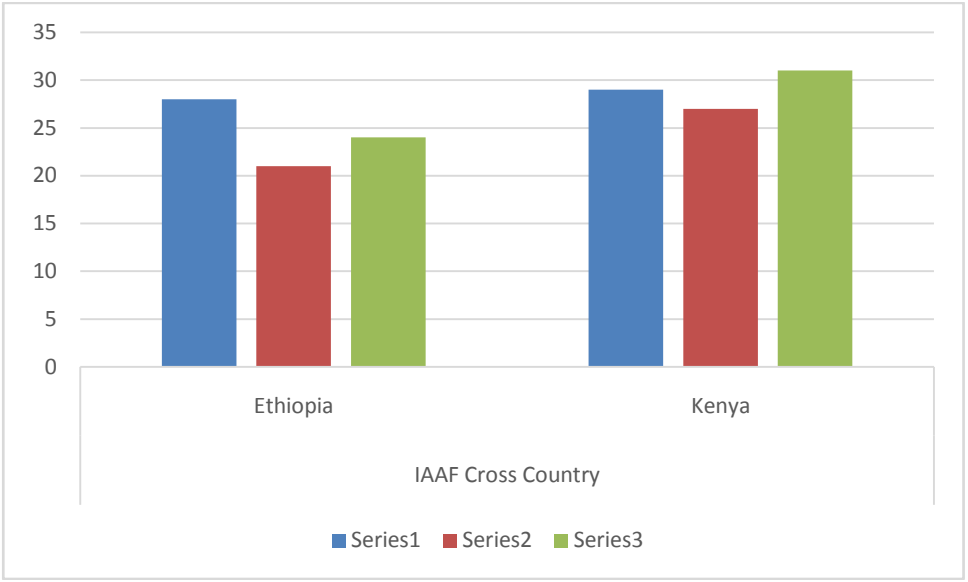

Figure III
The Overall Performances of Ethiopian and Kenyan teams at IAAF Cross Country Races

Discussion

Based on the available data, the study revealed that the performances of Ethiopia and Kenya at the IAAF Cross Country Races were highly remarkable. These two countries secured 160 medals in the Cross-Country races so far. It was hypothesised that there may be significant differences in performances of Kenyan male athletes than Ethiopian male athletes in the IAAF World Cross Country Championships and the study also proved that Kenyan male performances were higher than the Ethiopian male athletes. Thus, the first hypothesis was accepted. Secondly, it was also stated that there may not be significant differences in performances of Ethiopian female athletes than Kenyan female athletes in IAAF World Cross Country Championships. However, the Ethiopian female athletes showed better results than Kenyan Female athletes. So, the Second hypothesis was rejected. The Overall performances of Kenyan athletics team were showing better results than Ethiopian athletics team at the IAAF Cross Country Races.

Conclusions

The following conclusion were drawn from the results of the study.

1. The Performances of Kenyan male athletes were in advance of Ethiopian male athletes at the IAAF Cross Country Races from 1981 to 2015.
2. The performances of Ethiopian female athletes were higher than Kenyan female athletes at the IAAF Cross Country Races
3. But there were similar performances showed by these two countries athletic teams (Men& Women) at the IAAF Cross Country Races.

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