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Performance analysis of all India inter university athletics championship 2014-2015 on throwers

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Abstract

Performance analysis is a process of understanding the nature of performance, factors influencing performance, the rate of improvement of performance, comparison of performance and many other factors which helps to get clear idea about the performance. The present study was conducted to understand the trend of development of performance in different throwing events. The objective of the study was to analyze the performance of throwers who were participated in all India inter University Athletic competition. The main focus was put on the changes of performance for both Male and female throwing events during last five years of inter University championship. The highest performance in shot put events was evident at 74th AIU Meet for men and 75th AIU Meet for women. In discus throw the highest performance was observed at 71st AIU meet for men and 75th AIU meet for women. In Hammer throw the highest performance was seen at 72nd AIU meet for the men and 85th AIU meet for the women. In javelin throw the highest performance was observed at 71st AIU meet for men and 74th AIU meet for women. In addition to this performance reports, the other championship like, State Championship, Open National Championship and World University Athletics championship were also compared according to the different throwing events. The graphical representation was used to depict the changes of performance in different competition. On the basis of the obtained results, the following conclusions were drawn. There has been consistency in changes of performance in most of the throwing events for Male athletes during last five years. In case of female athletes there has been consistency in change of performance in Discus and Hammer throw during last five years.

Keywords: Throwing events, Performance analysis, Athletic competition

Introduction

The history of athletics its roots in human prehistory. The first recorded organized athletics events at a sports festival are the Ancient Olympic Games. At the first Games in 776 BC in Olympia, Greece, only one event was contested: the stadion footrace and the first Olympic winner was Koroibos. In later years further running competitions have been added. Also in the Ancient Olympic pentathlon, four of the events are part of the track and field we have even today. The long jump, the javelin throw, the discus throw and the stadion foot race.

Athletics events were also present at the Pan-Hellenic Games in Greece around this period, and they become known to Rome in 200 BC. In the middle Ages new track and field events began developing in parts of Northern Europe. The stone put and weight throw competitions popular among Celtic societies were precursors to the modern shot put and hammer throw events. Also the pole vault, was popular in the Northern European Lowlands in the 18th century.

Modern competitions in athletics, took place for the first time in the 19th century. Usually they were organised by educational institutions, military organisations and sports clubs as competitions between rival establishments. In these competitions the hurdling were introduced for the first time. Modern competitions in athletics, took place for the first time in the 19th century. Usually they were organised by educational institutions, military organisations and sports clubs as competitions between rival establishments. In these competitions the hurdling were introduced for the first time.

Also, in the 19th century the first national associations have been established and organized the first national competitions. In 1880 the Amateur Athletic Association of England start organizing the annual AAA Championships while in United States in 1876 took place for the

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first time the USA Outdoor Track and Field Championships first by the New York Athletic Club.

The establishment of the modern Olympic Games in Athens at 1896 marked a new era for track and field. The Olympic athletics programme, comprising track and field events plus a marathon race, contained many of the foremost sporting competitions of the 1896 Summer Olympics. The Olympics also consolidated the use of metric measurements in international track and field events, both for race distances and for measuring jumps and throws. The events of track and field have been expanded in the following years.

In 1912 the International Amateur Athletic Federation (IAAF) was established, becoming the international governing body for athletics, having the amateurism as one of its founding principles for the sport. The first continental track and field competition was the 1919

South American Championships followed by the European Athletics Championships in 1934. In the 1928 Summer Olympics women competed for the first time. Furthermore, major athletics competitions for disabled athletes were first introduced at the 1960 Summer Paralympics.

From the 1960s, the athletics gained more exposure through television coverage. After over half a century of amateurism, the amateur status of the sport began to be displaced by growing professionalism in the late 1970s. In 1982 The IAAF abandoned amateurism, and later changed its name as the International Association of Athletics Federations. The following year IAAF established the World Championships in Athletics – the first ever global competition for athletics which became one of track and field's most prestigious competitions along with the Olympics.

The IAAF World Championships in Athletics became a fully professional competition with the introduction of prize money in 1997. Also in 1998 the IAAF Golden League increased the professionalism of athletics. In 2010, the series was replaced by the more lucrative IAAF Diamond League which comprises meetings in Europe, Asia, North America and the Middle East which are the first ever worldwide annual series of track and field meetings.

Games, World Championship Inter-continental Championship, Continental- Championship are organized in every year for track and field athletics. In every competition the participants wants to perform better with the motto of faster, higher and stronger.

Performance Analysis is a process of understanding in nature of performance, factors influencing performance, the rate of improvement of performance in respect to time comparison of performance and many such other factors which helps to get clear idea about the performance. Performance analysis helps to prepare teaching schedule, coaching programs, organizing structure and prognosis of future performance.

Track and field athletics is big area of competition involving the performance of competitions in fundamental activities like, walking, running, jumping, throwing etc. These activities are consider to be racial activities which have come with human being in the long process of survival for existence as a biological species. In the beginning all these were the essential activities in the living pattern of primitive human beings afterwards with the process of development of civilization. Pan-Hellenic festivals' including ancient Olympic Games was initiated with these activities as the competitive events.

Inter university athletics is a platform for young athletics talent to show their potentiality and follow the path for being national and international level performance. Therefore, to encourage inter university athletics and to help inter

university athletics become a national priority for each country. Providing standard facilities, arranging quality coaching and training programmers, organizing good inter university tournaments, participating in the world university games are the main feature of intervarsity tournaments.

The athletics performance needs scientific back up for its improvement. It depends on the factors physiological, psychological, sociological, biomechanical etc. Scientific researches to analyze understand the performance in general and planning for its improvements is essential. "performance analysis of all inter university athletics championship" is an attempt to understand the trend of development of performance in different track and field events. The main emphasis was on the change of performance of each of 22 male and female track and field events during last five years of interuniversity championship.

So, from the above scenario, the present researcher was intended to focus on status, trends of the throwers and also analyze the performance of the throwers of all India University athletic championship from 2010 to 2014. And the aim of this study was set to analyze the performance of all India inter university athletics championship 2014-2015 on throwers.

Objectives of the study

The objectives of the study were as follows

1. To study the present status of Indian University Athletes in these respective Throwing events.
2. To observe the difference between men and women performance in these respective throwing events.
3. To indicate the development trend of performance of Indian University Athletes
4. Inter University Athletics is a platform for young talent athletes show their potentiality and follow the path for being National and International level performance.
5. To encourage Inter university athletes become a National priority for each country.

Hypothesis of the study

H01: There was no significant difference between men and women in throwing performance.

H02: There was no development trend of performance for Indian University Athletes.

Methodology

Selection of the subjects

The winners of each events for both men and women section of different levels AIIU, State, National and World University Championships were consider as the subject for this study. Their performances were collected from office records and websites.

Selection of the variables

The performance of the throwers in different athletic events were being considered as the selected variables for the present study.

Criteria Measured

The present study was focused on "Performance Analysis of 75th All India Inter University Athletics Championship 2014-2015". Information of the study was taken from people from different sectors, ex-players, Sports Administration, Club official, Athletics coaches.

Collection of data

The 1st position holders’ performance of different levels AIIU, State, National & World Championships was collected from webpage.

Design of the study

For this study purposive sampling design were used.

Statistical Procedure

The obtain data in form of digital score was treated statistically to get results and to draw conclusion. Mean (M) were used as descriptive statistics (S.D.) for the present study.

Results & Discussions

Table 1: Winning performances (distance) of Shot Put for Men & Women in AIIU Athletics Championships last five years

Group	71thAIIU	72thAIIU	73thAIIU	74thAIIU	75thAIIU
Men	18.20	18.23	18.34	18.54	18.48
Women	13.70	12.78	12.97	13.69	14.46

*Performances – distance in meters.

It appears from the table -1 that the performance of Shot put of last five AIIU Meets i.e., 71th AIIU Athletics Championship, 72th AIIU Athletics Championship, 73th AIIU Athletics Championship, 74th AIIU Athletics Championship, 75th AIIU Athletics Championship were 18.20m, 18.23m, 18.34m, 18.54m, 18.48m respectively for men and Women’s results of last five meets also were 13.70m, 12.78m, 12.97m, 13.69m, 14.46 respectively.

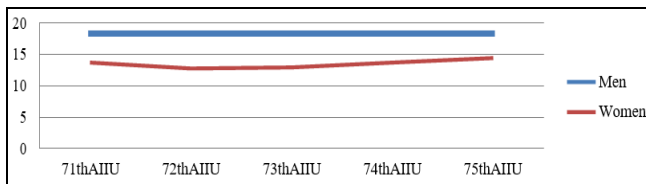


Fig 1: Graphical representation of shot put for Men & Women last five AIIU Athletics Meets

From the performance value in the table and the performance graph in the fig-1, it was observed that the performance of Shot put was frequently different for both men and women in last five years of AIIU Meets. Through, the highest performance was shown in the 74th AIIU Meet 2013, for men and lowest was in the 71st AIIU Meet 2010. On the other side for women the highest performance was shown in the 75th AIIU Meet 2014, and the lowest was in 72th AIIU Meet 2011. After 73th AIIU Meet these developed was observed for Shot put event.

From the above result the inevitable truth may appear in front of us that with the advancement of science and technology the performance of the human being in social spectrum also developed. Sports and games performance in this context is not an exception of that. The performance of men and women gradually developed although having some change of that particular trend. In spite of that ultimately the performance of male had increased (considering the whole span) 1.54% which is very mere for mention but the performance of women demand some extra credit as it has increased by 5.55%. Generally throughout the world in each and every event in performance culture, there is the trend of development as the development of sport science. In University level also the quality of the entry talent also

increased and due to some developmental planning of MHRD, Govt. of India and special drive of UGC for the development of the students the infrastructural facilities developed and the culture of sports in University and college level has changed positively.

Table 2: Winning performance (distance) of shot put for Men & Women in different levels of athletics championships

Group	75th AIIU	64TH WB State	55th open National	World Univ.
Men	18.48	17.12	19.82	21.11
Women	14.46	11.89	17.96	20.82

*Performance – distance in meters

In Table- 2, the researcher shows the performance for different levels i.e., last AIIU, State Meet, open National, and World University levels for Shot put for Men & Women. The performance were 18.34m, 17.12m, 19.82m, 21.11m, respectively for men and 13.69m, 11.89m, 17.96m, 20.82m, respectively for women.

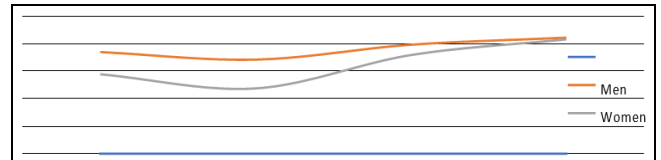


Fig 2: Graphical presentation of Shot put for Men and Women in different levels of athletics championship

From the performance value in the table and the performance graph in the fig- 2, it was observe that the performance of world University athletes were better than other four levels of athletes for both men and women. The performance was more than 19 meters in the open National Meet. Here the performance of open National Championship was better than AIIU meet. But in case of women the performance was above 17 meters in Open National Championship & World Athletics Championship. The performance of the AIIU Meet was better than the State Meet. From the result it is clear that the performance in both the category is far lacking behind from the World University and open national in India but slightly ahead than the state level. Considering the facilities provided by the other countries specially in the Europe and America there is no question can be raised regarding this performance difference. In India also the national level athletes are enjoying world standard facilities and receiving that standard training through S. A. I. and other Industrial benevolent persons and hence their performance is so high whereas the university level students are not that standard considering the sports culture of the university.

Table 3: Winning performance (distance) of Discus Throw for Men and Women in last five years AIIU Athletics Championship

Group	71th AIIU	72th AIIU	73th AIIU	74th AIIU	75thAIIU
Men	54.44	53.82	50.11	52.59	51.90
Women	47.77	43.91	45.73	51.23	52.70

*Performance- distance in meters

It appears from the table-3 that the performance of Discus Throw of last five AIIU Meets. i.e., 71rd AIIU Athletics Championship, 72nd AIIU Athletics Championship, 73rd AIIU Athletics Championship, 74th AIIU Athletics

Championship, 75th AIIU Athletics Championship were 54.44m, 53.82m, 50.11m, 52.59m, 51.90m respectively for the men and for women's results of last five meets also were 45.77m, 43.91m, 45.73m, 51.23m, 52.70m respectively.

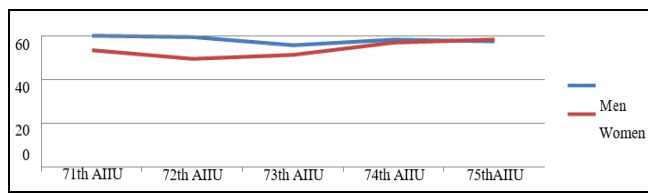


Fig 3: Graphical presentation of Discus Throw for Men and Women in last five AIIU Athletics Championships

From the performance value in the table and the performance graph in the fig-3, it was shown that the performance in last five years were quite different for both men and women. The highest performance was shown in the 71st AIIU Meet- 2011 for men and for women in the 75th AIIU Meet -2014.

From the above result the inevitable truth may appear in front of us that with the advancement of science and technology the performance of the human being in social spectrum also developed. Sports and games performance in this context is not an exception of that. The performance of man gradually decreased although some change of that particular trend. In spite of that ultimately the performance of male had decreased (considering the whole span) 4.66% but women the performance of demand some extra credit as it has increased by 8.33%. Generally throughout the world in each and every event in performance culture, there is the trend of development as the development of sport science. In University level also the quality of the entry talent also increased and due to some developmental planning of MHRD, Govt. of India and special drive of UGC for the development of the students the infrastructural facilities developed and the culture of sports in University and college level has changed positively.

Table 4: Winning performance (distance) of Discus Throw for Men and Women in different levels of athletics championships

Group	75th AIIU	64thWB State	55thopen National	World univ.
Men	51.90	43.03	56.12	64.07
Women	52.70	36.66	51.17	63.99

*Performances distance in meters

In Table-4, the researcher shows the performance for different levels i.e., last AIIU, State, Open National, and World University levels for Discus Throw for Men & Women. The performance were 51.90m, 43.03m, 56.12m, & 64.07m respectively for men and 52.70m, 36.66m, 51.71m, 63.99m respectively for women. The results for both men & women of these four of athletes also presented in figure-4.

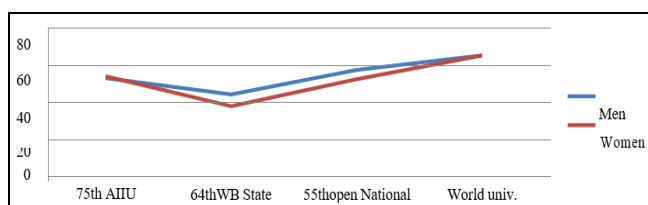


Fig 4: Graphical presentation of Discus Throw for Men and Women in different levels of athletics championships

From the performance value in the table and the performance graph in the fig-4, it was observed that the performance the

World University athletes was better performed than other three levels of athletes and the lowest performance was observed in the State Championship for both men and women. The performance of Open National was better than the AIIU meet for men and the women performance in AIIU Meet was better than the Open National Championship.

From the result it is clear that the performance in both the category is far lacking behind from the World University and open national in India but here the result showed that only for women AIIU level performance 0.80% slightly ahead than the open national level. Considering the facilities provided by the other countries specially in the Europe and America there is no question can be raised regarding this performance difference. In India also the national level athletes are enjoying world standard facilities and receiving that standard training through S. A. I. and other Industrial benevolent persons and hence their performance is so high whereas the university level students are not that standard considering the sports culture of the university.

Table 5: Winning performance (distance) of Hammer Throw for Men and Women in last five AIIU Athletics Championship

Group	71st AIIU	72nd AIIU	73rd AIIU	74th AIIU	75th AIIU
Men	64.10	66.59	57.84	62.23	60.15
Women	52.90	48.61	50.88	53.86	58.41

*Performance- distance in meters

It appears from the table -5 that the performance of Hammer Throw of last five AIIU Meets i.e., 71st AIIU Athletics Championship, 72nd AIIU Athletics Championship, 73rd AIIU Athletics Championship, 74th AIIU Athletics Championship, 75th AIIU Athletics Championship were 64.10m, 66.59m, 57.84m, 62.23m, 60.15m, respectively for men and for women's results of last five meets also were 52.90m, 48.61m, 50.88m, 53.86m, 58.41m respectively. The results of Hammer Throw for Men and Women last five AIIU Athletics Championship also presented in the figure-5

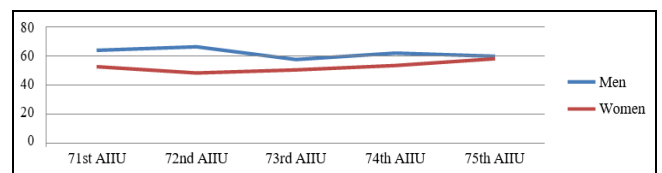


Fig 5: Graphical presentation of Hammer Throw for Men and Women in last five AIIU Athletics Championships

From the performance value in the table and the performance graph the fig-5, it was observed that the performance was frequently different in last five years for both men and women. The highest performance was observed in the 72nd AIIU Meet-2012 and lowest performance was in the 73rd AIIU Meet 2013 for men. In case of women the highest performance was in the 75th AIIU Meet 2014 and lowest performance was in 72nd AIIU Meet' 12.

From the above result the inevitable truth may appear in front of us that with the advancement of science and technology the performance of the human being in social spectrum also developed. Sports and games performance in this context is not an exception of that. The performance of man gradually decreased although some change of that particular trend. In spite of that ultimately the performance of male had decreased (considering the whole span) 2.41% % but women the performance of demand some extra credit as it has increased by 3.21%. Generally throughout the world in each and every

event in performance culture, there is the trend of development as the development of sport science. In University level also the quality of the entry talent also increased and due to some developmental planning of MHRD, Govt. of India and special drive of UGC for the development of the students the infrastructural facilities developed and the culture of sports in University and college level has changed positively.

Table 6: Winning performance (distance) of Hammer Throw for Men and Women in different levels of athletics championships

Group	75th AIIU	64th WB State	55th Open National	World Univ.
Men	60.15	#	67.73	78.14
Women	58.41	#	58.97	72.93

*Performance –distance in meters

In Table.6 the researcher shows the performance for different levels i.e., last AIIU, State, National Open National and World University levels for Hammer Throw for Men & Women. The performance were 60.15m, #m, 67.73m, 78.14m respectively for men and 58.41m, #m, 58.97m, 72.93m, respectively for women. The results for both men & women of these five levels of athletes also presented in fig-6.

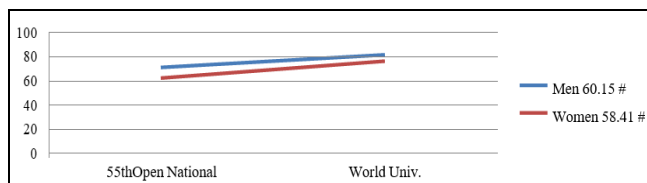


Fig 6: Graphical presentation of Hammer Throw for Men and Women in different levels of athletics championships

From the performance value in the table and the performance graph in the fig.06, it was observed that the performance of World University athlete crossed the 70 meters which was the better than other three levels of athletes for both men and women. The performance of open national championship was better than AIIU meet's performance for both men women. From the result it is clear that the performance in both the category is far lacking behind from the World University and open national in India. Here, AIIU level performance for men 14.05% behind from World University Championship, and for women also behind 10.58%. Considering the facilities provided by the other countries specially in the Europe and America there is no question can be raised regarding this performance difference. In India also the national level athletes are enjoying world standard facilities and receiving that standard training through S. A. I. and other Industrial benevolent persons and hence their performance is so high whereas the university level students are not that standard considering the sports culture of the university.

Table 7: Winning performance (distance) of Javelin for Men & Women in last five AIIU Athletics Championships

Group	71ST AIIU	72nd AIIU	73rd AIIU	74th AIIU	75th AIIU
Men	74.97	70.69	74.09	72.63	69.30
Women	47.80	48.40	48.38	52.64	48.16

*Performance- distance in meter

It appears from the table-7 that the performance of the javelin

Throw of last five AIIU Meets i.e., 71st AIIU Athletics Championship, 72nd AIIU Athletics Championship, 73rd AIIU Athletics Championship, 74th AIIU Athletics Championship, 75th AIIU Athletics Championship were 74.97m, 70.69m, 74.09m, 72.63m, 69.30m respectively for men and for women's results of last five meets also were 47.80m, 48.40m, 48.38m, 52.64m, 48.16m respectively. The results of Javelin Throw for Men and Women last five AIIU Athletics Meets also presented in figure-7.

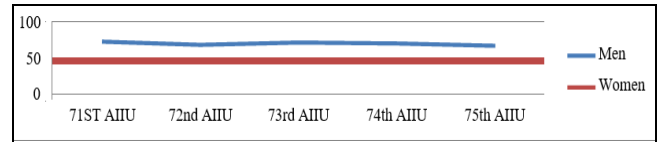


Fig 7: Graphical presentation of Javelin Throw for Men & Women in last five AIIU Athletics Championships

From the performance value in the table-7 and the performance graph in the fig-7, it was observed that the performance the performance was frequently different in these last years for both the sex. There shown a more or less equal performance in the 71st, 73rd AIIU Meet for men and in 72nd, 73rd, 75th AIIU Meet for women. The highest performance for men was observed in 71st AIIU Athletics Meet and lowest was in the 75th AIIU Meet. For women the highest performance was 74th and lowest was in 71st AIIU Meet. It is notice that was a developmental trend for decreased performance in last five years for both men and women.

From the above result the inevitable truth may appear in front of us that with the advancement of science and technology the performance of the human being in social spectrum also developed. Sports and games performance in this context is not an exception of that. The performance of man gradually decreased although some change of that particular trend. In spite of that ultimately the performance of male had decreased (considering the whole span) 4.25% but women the performance trend showed that some increased and decreased. Generally throughout the world in each and every event in performance culture, there is the trend of development as the development of sport science. In University level also the quality of the entry talent also increased and due to some developmental planning of MHRD, Govt. of India and special drive of UGC for the development of the students the infrastructural facilities developed and the culture of sports in University and college level has changed positively.

Table 8: Winning Performance (distance) of Javelin Throw for Men and Women in different levels of athletics championships

Group	75th AIIU	64th WB State	55th Open National	World Univ.
Men	69.30	71.89	77.67	83.79
Women	48.16	33.86	58.85	66.47

*Performance- distance in meter

In table-8 the researcher has shown the performance for different levels i.e., last AIIU, State, Open National and World University levels for Javelin Throw for Men & women. The performance were 69.30m, 71.89m, 77.67m, 83.79m respectively for men and 48.16m, 33.86m, 58.85m, 66.47m respectively for women. The results for both men and women of these four level of athletes also presented in figure-8.

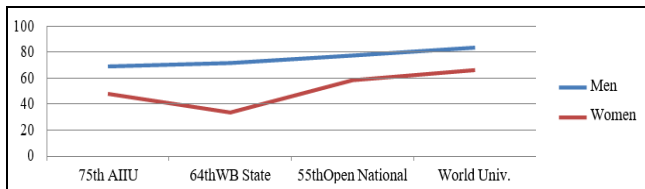


Fig 8: Graphical presentation of Javelin Throw for Men & Women in different levels of athletics championship

From the performance value in the table-8 and the performance graph in the fig-8, it was observed that the performance of World University was better than other four levels of athletics championship. The performance in Open National was better than AIIU Meet for both men and women. And respected in the table-8 has shown that WB State Meet result was better than AIIU Meet for men but in other hand for women it was opposite.

From the result it is clear that the performance in both the category is far lacking behind from the World University and open national in India. Here AIIU level performance for men 22.19% behind from World University Championship, and for women also behind 12.17%. Considering the facilities provided by the other countries specially in the Europe and America there is no question can be raised regarding this performance difference. In India also the national level athletes are enjoying world standard facilities and receiving that standard training through S. A. I. and other Industrial benevolent persons and hence their performance is so high whereas the university level students are not that standard considering the sports culture of the university.

Conclusion

Within the limitations of the study on the basis of obtained results, the following conclusions were drawn:

1. There has been consistency in change of performance in most of the throwing events for male athletes during last five years.
2. In case of female athletes throwing events, there has been consistency in change of performance in Discus and Hammer throw during last five years.

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