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Critical Analysis of Performance Factors between Indian and Foreign Soccer Players

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Abstract

The aim of this study was to critically analyze the performance factors between Indian and foreign soccer players. According to the research method, 90 soccer players were selected for this study, 30 of them were from India and 60 soccer players from other foreign countries. All Indian soccer players who had participated only for the national soccer team and who have their own FIFA rankings were only selected for the study. Foreign soccer players who were selected for the study were from different countries and who also have their own FIFA rankings. Four performance factors were considered for this study, namely ball skills, defensive skills, passing abilities and Shooting abilities. Ball skills were measured with the help of ball control and dribbling skills. Defensive skills were measured using players' markings, slide tackles and stand tackles. The passing abilities were measured with the help of crossing pass, short pass and long pass. Shooting abilities were measured with the help of heading, shot power, finishing, long shot, curve shot, free kick assistance, penalties and volley skills. Secondary data has been used for this study. The Student 't' test statistics was applied to examine the existence of significant differences between the performance factors of Indian and foreign soccer players. In conclusion, significant differences were observed across all performance factors in respect of foreign soccer players.

Keywords: ball skills, defensive skills, passing ability, shooting abilities, soccer players.

1. Introduction

Soccer is the most popular sport in the country as well as internationally, which helps to prepare players for physical fitness, skill, psychology and planning if the training program is appropriate for them at the level of their physical ability and the basic skill of the rules of science. On physical skill, and psychological skills the athlete strives to achieve the best level and achieve success. The game of soccer puts the ball in the opponent's goal as much as possible and protects the goal itself from being broken in order to find the winner. The effectiveness of the ball would only be achieved if the training could be done and focused on the whole training aspects including the player's personality, physical condition, technical skills, strategic skills, and mental performance of the player (Firmansyah et al., 2017).

Performance in soccer depends on many factors, including technical, tactical, mental and physical. Players will experience fatigue during a match, manifested through a reduced work rate, reduced ability to perform high-intensity exercise, and a progressive decrease in muscle strength at the end of match-play. Resistance to fatigue is an important factor that determines the

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effectiveness of a player's ability to perform consistently in efficient manner and in precise movements within soccer. Soccer is characterized not only by a player's ability to perform repeated high-intensity tasks, but also by the maintenance of efficient execution of skills when in possession of the ball, such as passing, dribbling, and shooting usually towards the end of the game (McGregor et al., 1999).

Soccer is a game that requires good cooperation and requires that the players have good basic skills individually. The basic procedure is the most important part of soccer (Alexander et al., 2020). In soccer there are 4 basic methods, pulling, passing, controlling, and shooting to kick the ball into the opponent's goal, the player must be able to kick well even on target (Bettega et al., 2018). Among the above basic techniques, the most important procedure is to kick the ball.

Dribbling a soccer ball is a natural skill that players can only perform by running and kicking; however, the ability to defeat an opponent under pressure is one of the hardest skills to acquire. The ball handler must be able to control the ball with all surfaces of his foot, such as the inside, outside, instep and sole. Hours of practice should be devoted to learning touch and controls while changing the pace. Players must master the four techniques of cutting, facing, shielding and speed dribbling. Ball handlers must practice these moves for years to become proficient in performing them properly. Players who wish to become highly competitive will need to spend an enormous amount of time practicing with the ball to develop these essential dribbling skills (KU ScholarWorks).

Soccer players have to move from hand-eye coordination to foot-eye coordination. Babies are more prone to using their hands because they are developing these fine-motor and gross-motor skills from birth. But when they start playing soccer, they have to develop these same neuro-pathways with their feet and other parts of the body. It is extremely challenging because players are not able to use their most developed senses, the hands, to manipulate the soccer ball (KU ScholarWorks).

Soccer is a sport that requires good cooperation and requires players to master good basic personal techniques. Basic technique is the most important component in soccer. According to Luxbacher (2011) the basic technique of soccer states that: "with this capital all the activities that fall under the activities may be well played or directed practice".

The most important of the above basic techniques is kicking the ball (shooting). Kicking the ball can be done in the ball at rest, the ball rolling or the ball floating in the air. However, the main purpose of kicking the ball (shooting) is to put the ball into the opponent's goal and the ability to kick the ball is very important to achieve that goal (Ridwan, Putra, 2019). With the ability to kick in a goal, a team will have a greater chance of scoring and winning against an opponent.

Keeping this in mind, researchers now state that several performance factors are responsible for becoming an elite soccer player and these factors need to be developed. Therefore, the researcher conducted this research entitled "Critical Analysis of Performance Factors between Indian and Foreign Football Players".

Statement of the problem

The purpose of this research study was to critically analyse the performance factors between Indian and foreign soccer players.

2. Materials and methods

Subject

The study was descriptive survey type. Thirty Indian soccer players (N = 30) and Sixty foreign soccer players (N = 60, from different countries) were selected for this study, whose age from 22 to 32 years. Indian soccer players who performed only for the Indian national soccer team and foreign soccer players, performed only for their own national soccer team as well as participated in different Soccer League were only selected for the study.

Test/tools

Ball skills: Ball skills were measured with the help of ball control and dribbling skill.

Defensive skills: Defensive skills were measured with the help of players marking, slide tackle and Stand Tackle.

Passing ability: Passing ability was measured with the help of Crossing pass, Short pass and long pass.

Soothing skills: Shooting skills were measured with the help of heading, shot power, finishing, long shot, curve shot, free kick assist, penalties and volley skills.

Scoring system

The researcher has used secondary data for this study. The data is collected from the official website of FIFA. EA (Electronic Arts Sports Network) Sports employs a team that is responsible for ensuring that all player data is up to date, while a community of over 6,000 FIFA data reviewers or talent scouts from around the world is constantly providing suggestions and changes to the database. They carefully observe what happens on the pitch to assess, assess and evaluate players with more than 30 characteristics that define a football player's skill level. Their assessments come together to form a FIFA rating ([Electronic Arts Inc.](#))

Once this group submits opinions on this or that player, their feedback is obtained through a secure EA (Electronic Arts Sports Network) Sports website. This data is then handled by 300 editors, who organize it into 300 fields and 35 attribute categories. The EA uses this subjective feedback in conjunction with its own statistics (obtained from other agencies) to determine the rating. FIFA Ultimate Team gives players upgrades during Team of the Week following stand-out performances and then refreshes the overall ratings in January and February each year ([EA explains...](#)).

Rating Range

Player Attributes are rated from 0 to 99. The higher value results the better quality for the attribute. Below is the info graphic that shows the quality level for the player attribute ratings. Players with higher physical attributes will perform better on-field, often dominating the course of a match in the game.

Table 1. Player Attributes

	0-39	40-49	50-59	60-69	70-79	80-89	90-99
QUALITY	RATING RANGE						
Excellent	90-99						
Very Good	80-89						
Good	70-79						
Fair	60-69						
Poor	50-59						
Very poor	40-49						

Source: [Player Attributes](#)

3. Results

Statistical procedure and result

Student t' test was applied to investigate the existence of significant difference of performance factors between Indian and foreign soccer players.

Table 2. Mean, SD and T' ratio of height, weight and age of Indian and foreign soccer players

Variable	Test	Subject	Mean	Variance	SD	T' value
Height (CM)	Indian Soccer Players	30	178.53	41.58	6.44	2.61*
	Foreign Soccer Players	60	182.26	40.36	6.35	
Weight (K.G)	Indian Soccer Players	30	73.36	31.09	5.57	3.02*
	Foreign Soccer	60	77.86	50.81	7.12	

Players						
Age (Year)	Indian Soccer Players	30	31.53	20.44	4.52	2.85*
	Foreign Soccer Players	60	28.91	15.07	3.88	

* Significant at 0.05 level

t' value required to be significant at 0.05 level of confidence with 88 degree of freedom was 1.89.

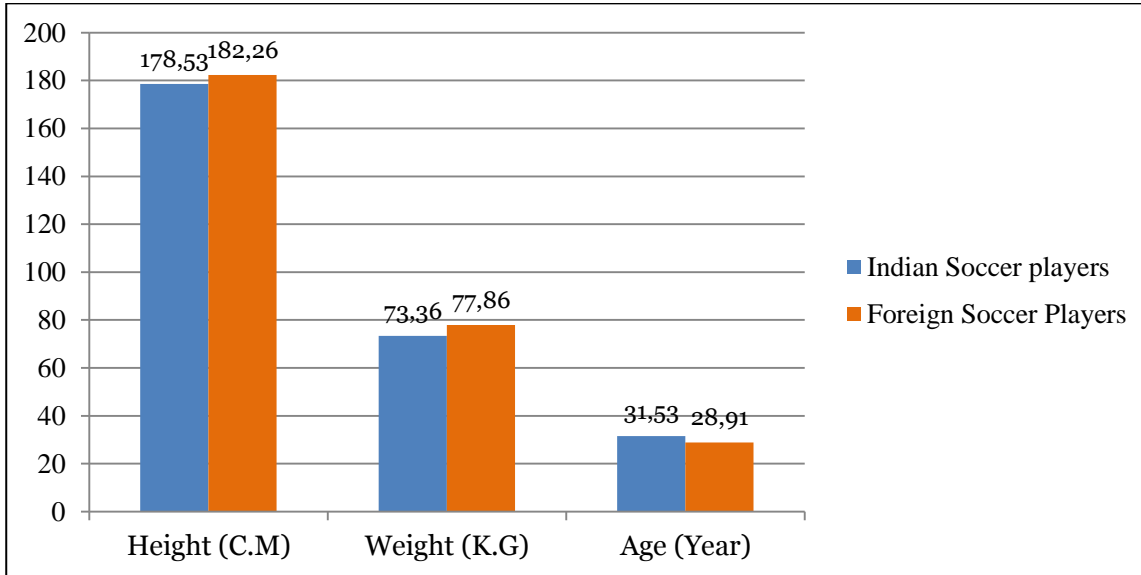


Fig. 1. Graphical presentation of height (cm), weight (kg) and age (years) of Indian and foreign soccer players.

Table 3. Mean, SD and T' ratio of ball skills of Indian and foreign soccer players

Variable (soccer ball skill)	Test	Subject	Mean	Variance	SD	T' value
Ball Control	Indian Soccer Players	30	54.43	103.77	10.18	15.23*
	Foreign Soccer Players	60	82.51	50.31	7.09	
Dribbling	Indian Soccer Players	30	51.93	160.86	12.68	9.75*
	Foreign Soccer Players	60	77.38	123.90	11.13	

* Significant at 0.05 level

t' value required to be significant at 0.05 level of confidence with 88 degree of freedom was 1.89

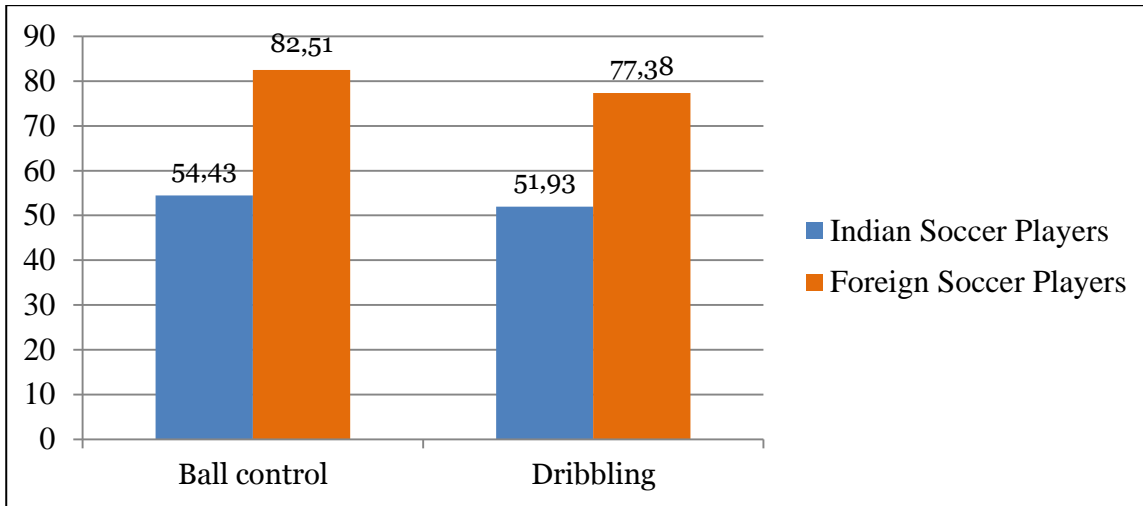


Fig. 2. Graphical presentation of ball skills of Indian and foreign soccer players

Table 4. Mean, SD and T' ratio of ball skills of defensive skills of Indian and Foreign soccer players

Variable soccer defensive skills	Test	Subject	Mean	Variance	SD	T' value
Marking	Indian Soccer Players	30	36.33	336.95	18.35	7.19*
	Foreign Soccer Players	60	68.81	441.88	21.02	
Slide Tackle	Indian Soccer Players	30	39.00	308.53	17.56	5.46*
	Foreign Soccer Players	60	65.38	543.43	23.31	
Stand Tackle	Indian Soccer Players	30	41.20	304.96	17.46	6.14*
	Foreign Soccer Players	60	69.03	463.03	21.51	

* Significant at 0.05 level

't' value required to be significant at 0.05 level of confidence with 88 degree of freedom was 1.89

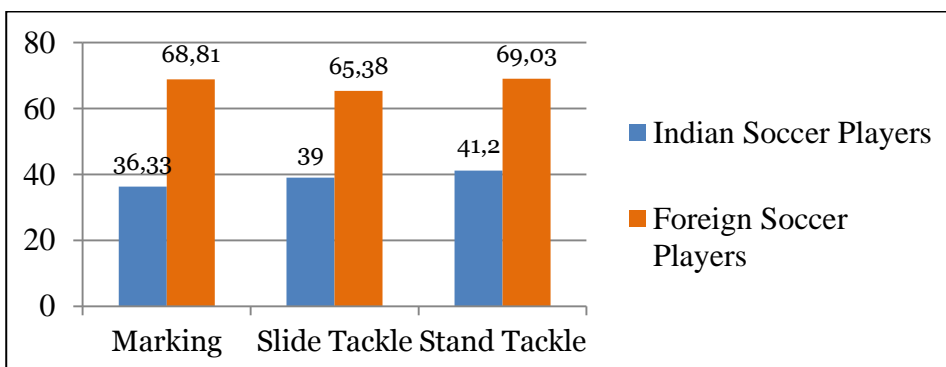


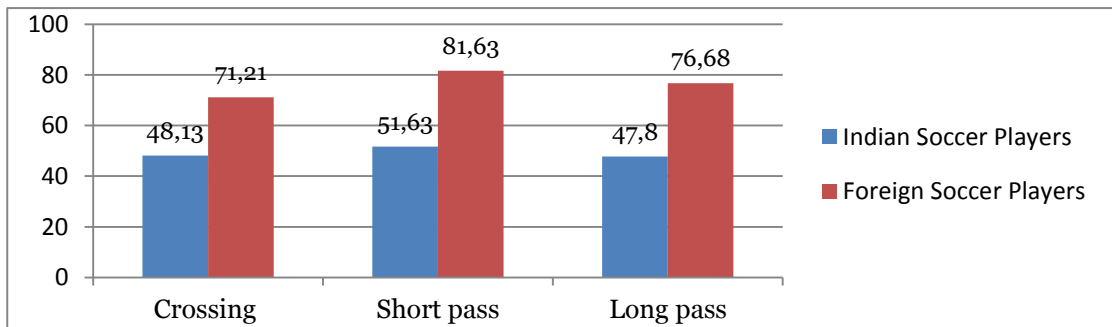
Fig. 3. Graphical presentation of defensive skills of Indian and foreign soccer players

Table 5. Mean, SD and T' ratio of passing abilities of Indian and Foreign soccer players

Variable	Test	Subject	Mean	Variance	SD	T' value
Crossing	Indian Soccer Players	30	48.13	145.71	12.07	6.92*
	Foreign Soccer Players	60	71.21	260.06	16.12	
Short pass	Indian Soccer Players	30	51.63	114.16	10.68	16.62*
	Foreign Soccer Players	60	81.63	40.96	6.40	
Long pass	Indian Soccer Players	30	47.80	109.76	10.47	13.21*
	Foreign Soccer Players	60	76.68	88.44	9.40	

* Significant at 0.05 level

't' value required to be significant at 0.05 level of confidence with 88 degree of freedom was 1.89

**Fig. 4.** Graphical presentation of passing abilities of Indian and foreign soccer players**Table 6.** Mean, SD and T' ratio of shooting abilities of Indian and foreign soccer players

Soccer shooting abilities	Test	Subject	Mean	Variance	SD	T' value
Heading	Indian Soccer Players	30	51.06	122.52	11.06	8.85*
	Foreign Soccer Players	60	73.91	138.47	11.76	
Shot power	Indian Soccer Players	30	54.6	79.57	8.92	10.37*
	Foreign Soccer Players	60	77.83	110.43	10.50	
Finishing	Indian Soccer Players	30	47.33	160.95	12.68	4.86*
	Foreign Soccer Players	60	67.06	411.32	20.28	
Long shot	Indian Soccer Players	30	45.00	180.13	13.42	6.47*

	Foreign Soccer Players	60	69.30	331.74	18.21	
Curve shot	Indian Soccer Players	30	48.66	167.82	12.95	6.44*
	Foreign Soccer Players	60	71.05	277.11	16.64	
Free kick Assist	Indian Soccer Players	30	46.46	200.91	14.17	4.41*
	Foreign Soccer Players	60	62.70	304.61	17.45	
Penalties	Indian Soccer Players	30	48.20	144.62	12.02	4.82*
	Foreign Soccer Players	60	65.16	198.27	17.27	
Volleys	Indian Soccer Players	30	44.90	208.95	14.45	4.71*
	Foreign Soccer Players	60	64.01	386.88	19.66	

* Significant at 0.05 level

't' value required to be significant at 0.05 level of confidence with 88 degree of freedom was 1.89

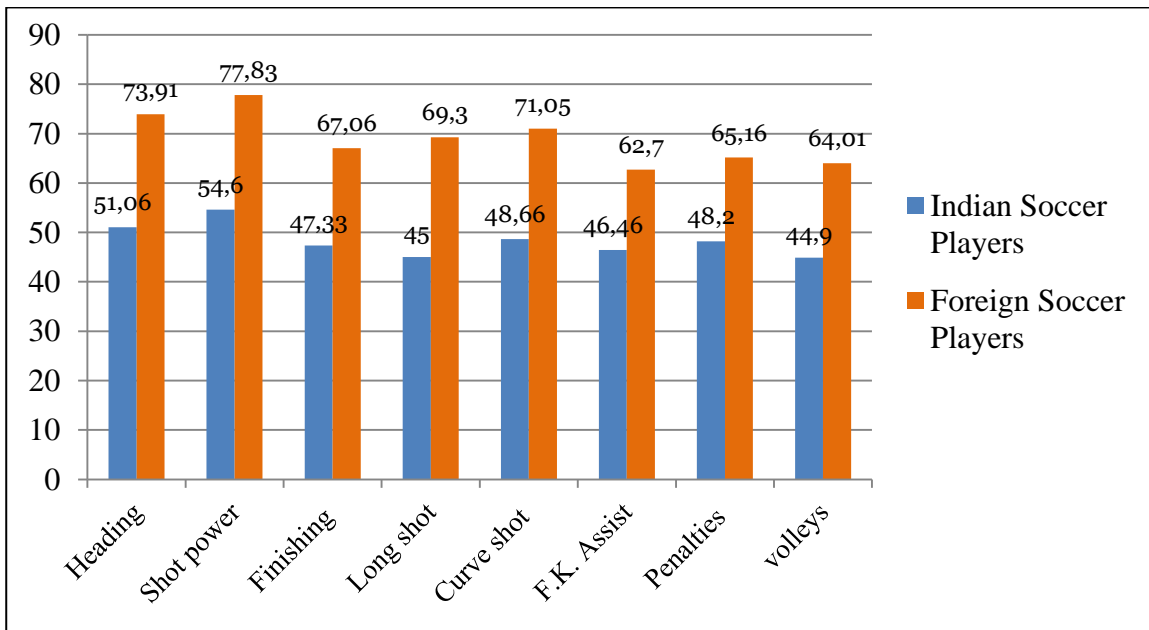


Fig. 5. Graphical presentation of shooting abilities of Indian and foreign soccer players

4. Discussion

From the above statistical calculation (Table 2) it was found that average height (cm) and weight (kg) of the Indian players are less than foreign players and difference were statistically significant. Height and weight take a significant role when soccer performance is concern.

Tall players are always the ones who can use their head during play, whether on defense or offense. Their high legs and arm length can be of great use in marking and tackling opponents. It also creates a large shot blocking area. Often with height comes strength, so it can be useful in a positional fight. However, the only disadvantage of tall players' physical characteristics is a higher

center of gravity which makes their balance more unstable. Weight can also predict greater success for soccer athletes in specific positions, as goalkeepers and defenders are usually heavier than midfielders and forwards ([What are the Characteristics...](#)).

From the above statistical calculations ([Tables 3-6](#)), it was found among Indian soccer players that all performance factors are lower than that of foreign players and the difference is statistically significant.

The principle of a great dribbler of the ball must be gifted with speed and endurance in a football-specific context. Scientists from the Department of Sports Science at the University of Beira Interior, Covilha, Portugal, found that anaerobic strength (essentially speed and power) was influenced by genetic factors "30 to 90 percent" and was influenced by peak oxygen uptake ("endurance 40 to 70 percent"). ([Footballing Speed...](#)).

In conclusion, significant differences were observed across all performance factors in respect of foreign soccer players. There are lots of physical, physiological and anthropological reasons behind this significant difference between the performance of Indian and foreign soccer players. Some researchers also explained this reasons according to their point of views.

Reilly et al. (2000) indicated that a number of physical and anthropological prerequisites are necessary to compete at an elite level in soccer. In particular, players are expected to have well-developed aerobic fitness and anaerobic strength, coupled with good agility to be able to maintain high power during fast movements throughout the match. This suggests that the higher the fitness level, the less the fatigue experienced by the players for a given full intensity, resulting in less degradation in technical efficiency. Players must master the four techniques of cutting, facing, shielding and speed dribbling. Ball handlers must practice these moves for years to become proficient in performing them properly. Players who wish to become highly competitive will need to spend an enormous amount of time practicing with the ball to develop these essential dribbling skills. Piaget's theory of cognitive development revealed that children build learning by practicing and experimenting with their environment such as dribbling a soccer ball.

There are two important motor areas in the brain, located in the cortex. One is the motor area located in the frontal lobe and the other is the sensory area located in the cerebellum. Both these areas control the legs, feet, thighs, arms, hands, neck, etc. along with many other muscles. The motor area and sensory area use a process called servomechanism that acts as a correction factor once the muscle starts to move. This system continuously sends information to the brain so that correction and adjustment can be achieved throughout the movement ([Fox et al., 1993](#)).

Limitations of the present study include the fact that the number of study subjects was small and the subjects' ages ranged from 22 to 32 years and that secondary data were also used to meet the purpose of the present study. Furthermore, there environmental factors, socio-economic background and their lifestyle habits are not considered, so that the results of the present study cannot be easily generalized. Therefore, in the future, studies may be conducted in which such limitations are complemented by studies.

5. Conclusion

In conclusion, significant differences were observed across all performance factors in respect of foreign soccer players. There are lots of physical, physiological and anthropological differences between the performance of Indian and foreign soccer players in terms of training, facilities available, environmental factors and professionalism.

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