EFFECT OF PLAYING VENUE ON UNIVERSITY MALE VOLLEYBALL PLAYERS' PERCEPTION OF EFFORT

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Abstract:

The main objective of the present investigation was to check the effect of playing venue on players' perception of effort after the match on home and an opponent's home playing venue. A total of ninety-six players' age 18-24 years from eight different public and private universities were monitored during eight competitive matches playing against each other on a home and opponent's home ground. A higher score of perception of effort of volleyball players 5.50 ± 0.28 was observed on opponent's playing venue after the match due to decrease scores of tactics 3.32±0.01, territoriality 3.49±0.05, familiarity 2.98±0.03, referee bias 3.66±0.05 and crowd support 3.26±0.02. Whereas, an increased score of travel was 3.69±0.05. In conclusion, the playing venue extensively influenced the perception of effort of players because of less support of its factors on opponent's home ground owing to players found their match activity very hard.

Keywords: Factors, Playing venue, Volleyball, Players, Perception of effort

Introduction:

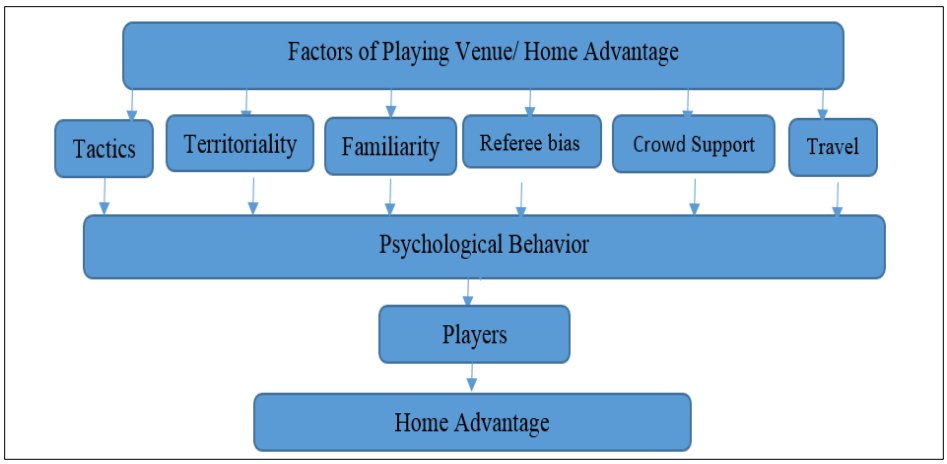
Throughout the world, the specialists of sports which include players, managers, and commentators all of them recognize the significance of performing various games like basketball, volleyball and ice hockey at home venue (Fothergill *et al.,* 2017). Schwartz and Barsky were the first researchers to explore the advantage of playing at home venue in 1977, according to Inan (2020). Further Almeda and Volossovitch (2017) expressed the advantage of home venue and stated that those players who were performing at their home venue were better as compared to those who have been performing at away venues. Various Researchers characterized the advantage of home venue as finding without consistency as ratio of winning of home venue playing teams in the competitions of sports is more than 50% of the competitions which have been performed in a well-balanced schedule (Krumer, 2017). These findings have repeatedly been examined by many

researchers and finding a bigger winning ratio at the matches performed at home venue. Baseball has a 54 percent winning average ratio, soccer has a 64 percent winning average ratio, and hockey has a 53 percent winning average ratio (Roşca, 2020). In junior ice hockey, the percentage of teams with an improved home performance record is 86.7 percent (Sarmento et al., 2018). So, these findings are helpful for the enhancement of understanding of the home advantage in current situations. Whereas, the current research will be helpful in adding new findings in literature review that what is the mechanism through which an opponent's home playing venue impacts the performers' perception about the toughness of match due to less favors of venue factors on the opponent's ground.

Literature Review:

The most common perception about performing at home venue consists of six major factors that have been emerged from past research. These have been likewise taken as the foremost significant contents of the training at the home advantage. These elements play role in making a favorable circumstance for performers at their own home ground in comparison with those who away ground. Pollard (2006) showed a framework in conceptual form (Fig. 2.1) of the advantage of performing at home playing venue. The below mentioned conceptual framework possesses six main important game venue factors. These contents collectively lead to form some supportive surroundings for performers and also makes stronger performers psychologically when they are contesting at their own home grounds. The psychological conditions of the competitors, support to the attitude of an individual player (e.g., decision making) and these attitudes in the form of responses give to favor to the players performing at home venue and get home success from home venue.

Fig 2.1
Conceptual framework of the home ground by Pollard (2006)



Tactics Factor and playing venue

According to Dawson *et al.* (2020), not all sports employ tactics to aid the home team's performance under favorable conditions. There are certain examples in which players gained help through these tactics Durán *et al.* (2017) researched it and gave us a comprehensive idea about it which was comprised of having no evidence about the role of tactics in winning and causing benefitting the team. All the sports don't have the existence of tactics is another point to support the advocacy of this point. Last-line adjustments in ice hockey and bat last in baseball are basic examples of tactics factors (Tanzer, 2020).

Territoriality and playing venue

There is an effective and unique role of territorial dominance whenever the behavior of animals is discussed in the researches. According to many studies in the surroundings the dominance is seen in animals. When we create a connection with human attitudes in non-sporting circumstances, we find the same thing (Bullock et al., 2009). Raustiala and Victor (2004) achieved a clearly articulated view regarding people who have a genetic makeup

similar to that of some animals who create their sentiments of ownership in the perception of performance on their area in a study. Examining the attitudes of male students who were found to be more dominating and clear in their decision-making in the classroom despite not having a position of authority revealed this type's dominance and control (Robert *et al.,* 2018). When this control and domination were investigated in someone else's place, they were restricted (Chen et al., 2020).

Familiarity and playing venue

In one of the researches, it has been found that having familiarity whit the performance venue has achieved a significant role in the decision of the matching performance of the two teams (Sors *et al.,* 2020). It happens due to the help of familiarity for understanding the environment where the competition is to be take placed and the facilities themselves that are given (Cook *et al.,* 2017). While making the exploration of that is hard to for the decision of outcome (Nash *et al.,* 2019).

Referee bias behavior and playing venue

There are more than one points of view which has been presented as evidence that referee biased behavior is one of the main elements that favor the team playing at home venue through their partial decisions (Boyko *et al.,* 2007). This procedure of referee's biased decisions has not been considered significantly due to be confounded. It is hard to find as to how much intensity it is giving the advantage to the teams playing at home or not giving favors to the away teams (Beck *et al.,* 2019).

Crowd support and playing venue

A large number of researches has been conducted to find out the influence of the presence of crowd on the match performance of players. The density and size of crowd was kept under special observations during these researches. The size of crowd was focused carefully which has capability to influence the game in desired way (Goldschmied *et al.,* 2018). Levin, and Zickar (2002), in

a research, expressed their view about findings which had to hold an influence on the match during competition, a specifically large volume of spectators must be gained. They found it in that preliminary research. In the sports of baseball, these authors have shared the collected data along with developing an opinion which is that 57% raised level of success was observed when the sports arena were saturated with home supporting population. (Donihue *et al.,* 2007). And this ration became only 48% when the home supporting audience was low in level in arena and when the supporting spectators are medium then it becomes 55% (Donihue *et al.,* 2007). The similar effect of home advantage in junior league ice hockey was investigated by Carron et al. (2005) in another study.

Travel factor and playing venue

Another element has been taken under consideration to gain access for the potentially impacting elements to the performance of teams contesting away or in-home venue (Yoon and Uysal, 2005). In accordance with the research findings of the Kraemer *et al.* (2016), it happened due to the stressful and the anxious traveling towards different venues, the prolong time utilized during a long-distance traveling, their eating habits become changed due to long travelling which results in poor performance of the players (Carron *et al.,* 2005). In-home venue games, 82% matches were won by basketball five dominating teams, when the first half season was played in their home ground. Whereas when the second half was played at away venue the its rate was 81% (Kaviani *et al.,* 2020).

Perception of effort (Perceived exertion)

It is characterized by the complicated mechanism of perception, affective behavioral, cognitive, perceptive and metabolic activities that occur during the physical performance (McLellan *et al.,* 2016). For performing the given task, the player gains energy through these things. During training and competition, the coaches can use a simple method of Borg scale in which the intensity level of player is gauged this method is also known as Rating Perceived Exertion (RPE). The situational and

psychological factors influence the intensity of RPE (Haddad *et al.,* 2017).

In the current research, about match, the players' perception about effort of performers has been measured by Rating of Perceived Exertion (RPE) which is a measuring scale. The assessment was made after the competitions for measuring the internal training through the session-RPE

The observation of the playing venue's effect on the effort's perception of players on home ground of opponent and themselves after the match is the objective of this research.

Research Methodology

Sample Population

Volleyball players of university level.

Sample Selection

There were 96 volleyball male players from the 08 universities of Lahore, age ranges from 18 to 25 years, who were choose for study. These players has been the participants of Higher Education Commission (HEC) once or more than once.

Table 2.1:
Players chosen from a list

Sr. No.	University	Volleyball Players
1	University of the Punjab	12 (6)
2	Government College University Lahore	12 (6)
3	Lahore University of Management Sciences	12 (6)
4	University of Management and Technology	12 (6)
5	Superior University Lahore	12 (6)
6	University of Veterinary & Animal Sciences	12 (6)
7	Minhaj University Lahore	12 (6)
8	Lahore Leads University	12 (6)
	Total	96

Table-2.1 expresses the number of players who were chosen from each university.

Procedure of the Study

Each team was required to play one match at its home venue and one away from its home venue in order to meet the study's goals. As a result, a matched schedule was created.

Procedure of Playing Venue Factors Assessment

Through a self-made questionnaire, the psychomotor responses at the home venue and away home venue match were taken by players, which consisted of 6 contents(tactics, territoriality, familiarity, referee bias, crowd support, travel) with 10 statements, with likert scale of five points (1=Never; 2=Seldom; 3=Sometimes; 4= Often; 5= Always).

Perception of Effort (procedure of rating perceived exertion)

The Session-RPE score was used by Gomes *et al.* (2015) to assess effort, and the intensity was assessed after 30 minutes of play. The CR-10 sliding scale, with 1 nothing at all and 10 indicating very hard.

Statistical Analysis

The results were evaluated statistically using a paired sample "t" test and IBM SPSS (22) statistics to quantify psychometric assessment on playing venue factors and player perceptions of their efforts.

Results:

Playing Venue Factors of Volleyball

Table-2.2:
Volleyball Players' Score at the Playing Venue

Venue factors	Venue	N	Mean ± SEM	P-value
Tactics	Home Ground	96	3.41±0.01	0.027*
	Away Ground		3.32±0.01	
Territoriality	Home Ground		3.72±0.07	0.015*
	Away Ground		3.49±0.05	
Familiarity	Home Ground		3.09±0.02	0.521
	Away Ground		2.98±0.03	
Referee Bias	Home Ground		3.88±0.04	0.007*
	Away Ground		3.66±0.05	
Crowd Support	Home Ground		3.37±0.01	0.090
	Away Ground		3.26±0.02	
Travel	Home Ground		3.40±0.04	0.272
	Away Ground		3.69±0.05	

**$P < 0.01$ is considered as significant variation

Match tactics for both home and away games are shown in Table 2.2. When playing at home vs away, there is a significant difference in match tactics. On the ground, the average match tactics score was 3.41 ±0.01, down 2.6 percent. On the other side,

the average score of match tactics on away grounds was 3.32±0.01, suggesting that players are more at ease and perform better in accordance with their tactics.

The impacts of territoriality on home and away ground are also seen in Table 2.2. According to the results, between home and away grounds, there is a significant difference in territoriality score. The average score of territoriality on the away was 3.72 0.07, down 6% from the away home. The increased score of territoriality on home ground indicates that players are more relaxed and aggressive at home, and they perform better as a result of territoriality's impacts.

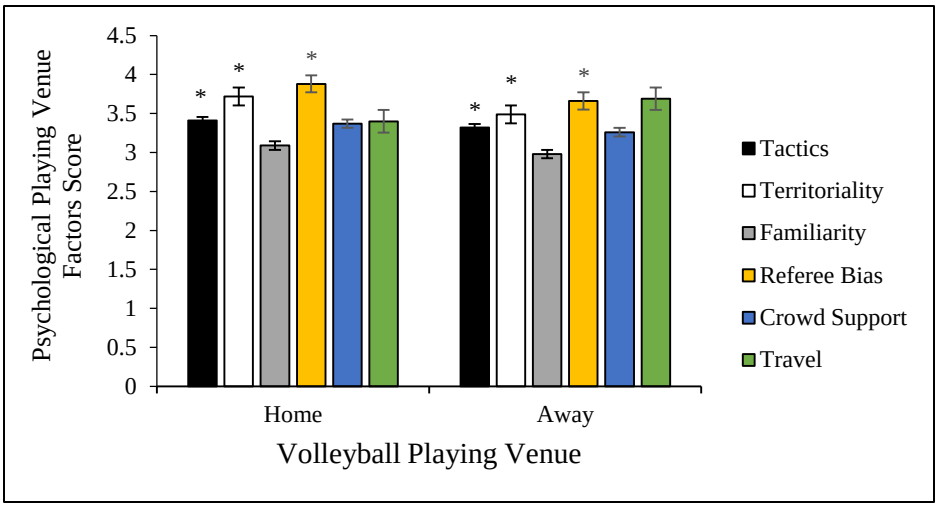
Table 2.2 shows the effects of familiarity with match conditions on home and away grounds. The findings show that match conditions familiarity differs significantly across home and away grounds. The average value of familiarity with match conditions on away ground was 3.09± 0.02, down 4%. Players are at ease due to well-defined match circumstances, regardless of whether they are playing at home or abroad, according to the average score for familiarity with match conditions of 2.98± 0.03.

Table 2.2 also shows the effects of referee biases on players' "decision making" on home and away teams. The reported number indicates that referee biases significantly difference between home and away matches. The average score of referee biases on matches on the home field was 3.88± 0.04, down 4% from the away ground. The average value of referee biases on the away ground, on the other hand, was determined to be 3.66 ±0.05, showing that players are more comfortable at home due to the match referee's unfair favour.

Table 2.2 shows the effects of cord assistance on tournaments played on home and away venues. According to the gained value, crowd support significantly difference between home and away grounds. On away grounds, the average level of crowd support under match situations was 3.37 ±0.01, down 3%. The average score for crowd support on away grounds was 3.26±0.02.

Table 2.2 shows the effects of travelling to the match venue on the performance of the home and away teams. In terms of travel to the playing venue, the earned value reveals that there is no significant difference. The average value of travelling to the home venue was 3.40± 0.04, increased 8% the average score for travelling to an away location was 3.69 ±0.05, showing that players feel anxious when travelling to their tournament venue (Fig. 2.2).

Fig. 2.2
Factors Affecting Volleyball Players' Score



*P< 0.05 is considered as significant variation

Perception of Effort (Physical Exertion) score of players about playing venue

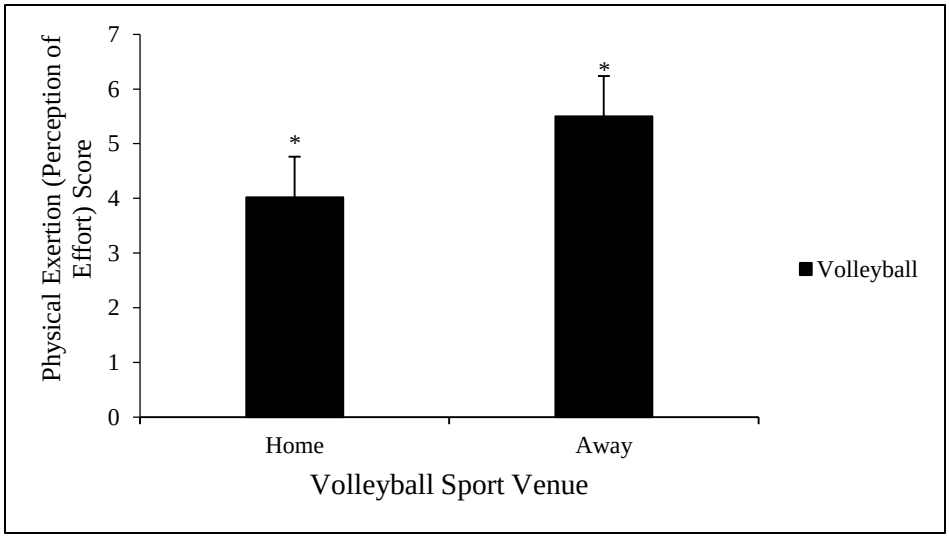
Table-2.3:
Physical exertion score of players

Game	Venue	Mean ± SEM	*P*-value
Volleyball (n= 96)	Home Ground	4.02 ± 0.12	0.000*
	Away Ground	5.50 ± 0.28	

(*P< 0.001 is considered as significant variation)

Table 2.3 shows that there is a significant difference in volleyball players' physical exertion scores. The average physical exertion score was 4.02 ± 0.12. It was increased by 36% in the post-test that was estimated as 5.50 ± 0.28. This increment was due to more anxiety and crowd hooting faced by players on away grounds than home grounds. As a result, they were found to be engaged in more physical exertion. (Fig 2.3).

Fig. 2.3:
Volleyball Players' Physical Exertion Score



(*P< 0.001 is considered a significant variation)

Discussion

In the findings of the current research, the performers' perceiving of effort score was seen to be increased on a playing venue of an opponent after the match occurrence, because of the reduced ratio of tactics, territoriality, familiarity, referee Bias and the Support of the crowd. along with, a raised level of ratio of travel also became greater about players' perceiving about effort. For the first time, that level was used to assess performers' perceptions of their effort after the competition in a broad sample of the present study's participants.

The rate of perceived exertion (RPE) is characterized by a person's sensation related to the intensity along with a tough and vigorous workout. As a strategy of pacing changes the state of competition, the changes are observed in RPE. In the progress of the competition, the duration of competition and endpoint are in a relationship with other, the exertion during the competition is measured by rate of perceived exertion (McLaren *et al.,* 2016).

Moreire et al. (2012) found that in formal basketball competitions, the level of RPE was higher when compared to professional players in stimulating situations. In those competitions higher perceived effort has been observed among players, as due to competitions has been performed at greater intensity in official matches and a higher level of physically and psychologically demands were placed from the participants in the competition. Elements like perceiving the exertion, playing circumstances affected the performing ability of players of the team in the current research. The referee, fans, unfamiliar playing environment, and degree of competency of the other side all have an impact on the performers' psychological state. As a result, performers' perceptions of themselves improve in order to improve their level of competitive performance.

This research further expresses that the physical exertion of sportspersons significantly, when they are playing away from the home venue. Because of unfavorable performing conditions, this happens. For the improvement of psychological, the coaches should lead the team for practicing at different venues.

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