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## Analysis of Chandigarh lawn tennis association on selected variables based on mathematical statistics

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### Abstract

Major Walter C. Wingfield, invented the modern Lawn Tennis game in 1873. British Army and Civilian Officers brought the game tennis to India in 1880. On September, 1975 The Chandigarh Lawn Tennis Association came into existence at Sector 10 Chandigarh. The purpose of the study was to Analysis of Chandigarh Lawn Tennis Association on Selected Variables Based on Mathematical Statistics. To fulfill the objective of the study, 50 administrators, 50 coaches, 150 players and 50 organisers were selected from Chandigarh. The data was collected in different coaching academies located in Chandigarh A self constructed questioner with 10 question on selected variables based on Management of Lawn tennis, Social environment for development of Lawn tennis, Lawn tennis promotion in Educational Institutions, Finance for development of Lawn tennis and Facilities for development of Lawn tennis was filled by the responded. In order to analyze the data Chi- Square ( $\chi^2$ ) was used to analyze the data.

**Keywords:** CLTA, Chandigarh, players, coach, administrator organiser etc.

### Introduction

Major Walter C. Wingfield, invented the modern Lawn Tennis game in 1873. British Army and Civilian Officers brought the game tennis to India in 1880. Chandigarh was the dream project of India's first Prime Minister, Jawaharlal Nehru. Albert Mayer an American planner and architect make the design of new city called "Chandigarh" in 1949. On September, 1975 The Chandigarh Lawn Tennis Association came into existence at Sector 10 Chandigarh. Since the Tennis Stadium is leased out to C.L.T.A. Over the years The Chandigarh Lawn Tennis Association had developed a first class playing infrastructure, as of now 2016 C.L.T.A has 10 synthetic tennis courts with flood lights, 2 clay courts with flood lights, 4 mini tennis courts with flood lights and a practice wall court. Over the years The Chandigarh Lawn Tennis Association had groomed a host of young champions at various international and national championships under various age groups.

**Methodology:** The purpose of the study was to Analysis of Chandigarh Lawn Tennis Association on Selected Variables Based on Mathematical Statistics. To fulfill the objective of the study, 10 administrators, 10 coaches, 10 players and 10 organisers were selected from Chandigarh.

**Purpose of the Study:** Analysis of Chandigarh Lawn Tennis Association on Selected Variables Based on Mathematical Statistics.

### Result and Discussion

**Table 1:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 1 (Chandigarh Lawn Tennis Association has sufficient number of Coaches).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	$\chi^2$
Administrator	0 (0)	0 (0)	13 (26)	17 (34)	20 (40)	35.80*
Coach	0 (0)	1 (2)	6 (12)	23 (46)	20 (40)	46.60*
Player	0 (0)	1(0.7)	13 (8.7)	56 (37.3)	80 (53.3)	173.53*
Organizer	0 (0)	2 (4)	6 (12)	20 (40)	22 (44)	42.40*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

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Percentage of responses on statement no. 1 on different level is depicted in the table 1. To know the significant difference in the opinion of different respondent on statement no. 1, chi square test was employed. Table 1 revealed that the computed chi square value on statement no. 1 for administrator, coach, player and orgaiser is found to be 35.80, 46.60, 173.53 and 42.40 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no. 1 (Chandigarh Lawn Tennis Association has sufficient number of Coaches) of the likert scale. Thus the opinion given by administrators on statement no. 1 (Chandigarh Lawn Tennis Association has sufficient number of Coaches) differ significantly”. It can be concluded that CLTA does not have sufficient number of Coaches.

**Table 2:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 2 (Coaches appointed in CLTA are qualified, deserving and efficient).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0(0)	3 (6)	15 (30)	28 (56)	4 (8)	53.40*
Coach	0(0)	7 (14)	8 (16)	28 (56)	7 (14)	44.60*
Player	0(0)	16 (10.7)	29 (19.3)	95 (63.3)	10 (6.7)	190.73*
Organiser	0(0)	2 (4)	9 (18)	33 (66)	6 (12)	71.00*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 2 on different level is depicted in the table 2. To know the significant difference in the opinion of different respondent on statement no. 2, chi square test was employed. Table 2 revealed that the computed chi square value on statement no. 2 for administrator, coach, player and orgaiser is found to be 53.40, 44.60, 190.73 and 71.00 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no. 2(Coaches appointed in CLTA are qualified, deserving and efficient) of the likert scale. Thus the opinion given by administrators on statement no. 2 (Coaches appointed in CLTA are qualified, deserving and efficient) differ significantly”. It can be conclude that Coaches appointed in CLTA are not qualified, deserving and efficient.

**Table 3:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 3 (The CLTA budget is sufficient to run the Lawn Tennis Program in Chandigarh).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	3 (6)	12 (24)	18 (36)	17 (34)	26.60*
Coach	1 (2)	3 (6)	8 (16)	23 (46)	15 (30)	32.80*
Player	1 (0.7)	8 (5.3)	32 (21.3)	68 (45.3)	41 (27.4)	96.46*
Organiser	0 (0)	1 (2)	12 (24)	19 (38)	18 (36)	33.00*

\*Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 3 on different level is depicted in the table 3. To know the significant difference in the opinion of different respondent on statement no. 3, chi square test was employed. Table 3 revealed that the computed chi square value on statement no. 3 for administrator, coach, player and orgaiser is found to be 26.60, 32.80, 96.46 and 33.00 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no. 3 (The CLTA budget is sufficient to run the Lawn Tennis Program in Chandigarh) of the likert scale. Thus the opinion given by administrators on statement no. 3 (The CLTA budget is sufficient to run the Lawn Tennis Program in Chandigarh) differ significantly”. It can be concluded that CLTA budget is not sufficient to run the Lawn Tennis Program in Chandigarh.

**Table 4:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 4 (The Funds Incentive given by Chandigarh Administration/CLTA/Voluntary agencies are reaching to deserving sports person).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	6 (12)	0 (0)	8 (16)	20(40)	16 (32)	25.60*
Coach	4 (8)	4 (8)	11 (22)	19 (38)	12 (24)	15.80*
Player	11 (7.3)	7 (4.7)	20 (13.3)	82 (54.7)	30(20)	123.13*
Organiser	2 (4)	4 (8)	10 (20)	28 (56)	6 (12)	44.00*

\*Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 4 on different level is depicted in the table 4. To know the significant difference in the opinion of different respondent on statement no. 4, chi square test was employed. Table 4 revealed that the computed chi square value on statement no. 4 for administrator, coach, player and orgaiser is found to be 25.60, 15.80, 123.13 and 44.00 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no. 4

(The Funds Incentive given by Chandigarh Administration/CLTA/Voluntary agencies are reaching to deserving sports person) of the likert scale. Thus the opinion given by administrators on statement no.4 (The Funds Incentive given by Chandigarh Administration/CLTA/Voluntary agencies are reaching to deserving sports person) differ significantly”. It can be concluded that the Funds Incentive given by Chandigarh Administration/CLTA/Voluntary agencies are not reaching to deserving sports person.

**Table 5:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 5 (There is lack of interest towards participation in Lawn Tennis among student's community).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	1 (2)	8 (16)	26 (52)	15 (30)	46.60*
Coach	1 (2)	5 (10)	6 (12)	20 (40)	18 (36)	28.60*
Player	1 (0.7)	4 (2.7)	42 (28)	56 (37.3)	47 (31.3)	87.53*
Organiser	0 (0)	3 (6)	15 (30)	17 (34)	15 (30)	24.80*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 5 on different level is depicted in the table 5. To know the significant difference in the opinion of different respondent on statement no. 5, chi square test was employed. Table 5 revealed that the computed chi square value on statement no. 5 for administrator, coach, player and orgaiser is found to be 46.60, 28.60, 87.53 and 24.80 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is significant difference in the opinion given by administrator,

coach, player and orgaiser on statement no. 5 (There is lack of interest towards participation in Lawn Tennis among student's community). of the likert scale. Thus the opinion given by administrators on statement no. 5 (There is lack of interest towards participation in Lawn Tennis among student's community) differ significantly". It can be concluded that there is no lack of interest towards participation in Lawn Tennis among student's community.

**Table 6:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 6 (Lawn Tennis academies are needed in various parts of the Chandigarh).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	3 (6)	6 (12)	9 (18)	18 (36)	14 (28)	14.60*
Coach	1 (2)	3 (6)	13 (26)	15 (30)	18 (36)	22.80*
Player	0 (0)	10 (6.7)	19 (12.7)	59 (39.3)	62 (41.3)	109.53*
Organiser	0 (0)	3 (6)	11(22)	23 (46)	13 (26)	32.80*

\*Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 6 on different level is depicted in the table 6. To know the significant difference in the opinion of different respondent on statement no. 6, chi square test was employed. Table 6 revealed that the computed chi square value on statement no. 6 for administrator, coach, player and orgaiser is found to be 14.60, 22.80, 109.53 and 32.80 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no6 (Lawn Tennis academies are needed in various parts of the Chandigarh) of the likert scale. Thus the opinion given by administrators on statement no.6 (Lawn Tennis academies are needed in various parts of the Chandigarh) differ significantly". It can be concluded that Lawn Tennis academies are not needed in various parts of the Chandigarh.

**Table 7:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 7 (Video analyst and other technical training should be provided to the players).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	1 (2)	10(20)	12 (24)	27 (54)	47.40*
Coach	0 (0)	2 (4)	9 (18)	18 (36)	21 (42)	35.00*
Player	0 (0)	0 (0)	25 (16.7)	47 (31.3)	78 (52)	147.26*
Organiser	0 (0)	3 (6)	9 (18)	14 (28)	24 (48)	36.20*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 7 on different level is depicted in the table 7. To know the significant difference in the opinion of different respondent on statement no. 7, chi square test was employed. Table 7 revealed that the computed chi square value on statement no. 7 for administrator, coach, player and orgaiser is found to be 47.40, 35.00, 147.26 and 36.20 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no (Video analyst and other technical training should be provided to the players) of the likert scale. Thus the opinion given by administrators on statement no. 7 (Video analyst and other technical training should be provided to the players) differ significantly". It can be concluded that Video analyst and other technical training should not be provided to the players.

**Table 8:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 8 (Media is giving due weightage to Lawn Tennis in Chandigarh).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	0 (0)	1 (2)	21 (42)	28 (56)	72.60*
Coach	0 (0)	1 (2)	3 (6)	23 (46)	23 (46)	56.80*
Player	1 (0.7)	1 (0.7)	12 (8)	75 (50)	61 (40.6)	166.40*
Organiser	1 (2)	2 (4)	6 (12)	20 (40)	21 (42)	38.20*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 8 on different level is depicted in the table 8. To know the significant difference in the opinion of different respondent on statement no. 8, chi square test was employed. Table 8 revealed that the computed chi square value on statement no. 8 for administrator, coach, player and orgaiser is found to be 72.60, 56.80, 166.40 and 38.20 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is

significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no 8 (Media is giving due weightage to Lawn Tennis in Chandigarh) of the likert scale. Thus the opinion given by administrators on statement no.8 (Media is giving due weightage to Lawn Tennis in Chandigarh) differ significantly". It can be concluded that Media is not giving due weightage to Lawn Tennis in Chandigarh.

**Table 9** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 9 (Heads of educational institutions have negative attitude towards Lawn Tennis).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	3 (6)	12 (24)	20 (40)	15 (30)	27.80*
Coach	0 (0)	2 (4)	11 (22)	23 (46)	14 (28)	35.00*
Player	0 (0)	17 (11.3)	42 (28)	47 (31.3)	44 (29.4)	56.60*
Organiser	1 (2)	5 (10)	9 (18)	23 (46)	12 (24)	28.00*

\* Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 9 on different level is depicted in the table 9. To know the significant difference in the opinion of different respondent on statement no. 9, chi square test was employed. Table 9 revealed that the computed chi square value on statement no. 9 for administrator, coach, player and orgaiser is found to be 27.80, 35.00, 56.60 and 28.00 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is significant difference in the opinion given by administrators

administrator, coach, player and orgaiser on statement no 9 (Heads of educational institutions have negative attitude towards Lawn Tennis) of the likert scale. Thus the opinion given by administrators on statement no. 9 (Heads of educational institutions have negative attitude towards Lawn Tennis) differ significantly". It can be concluded that Heads of educational institutions do not have negative attitude towards Lawn Tennis.

**Table 10:** Observed Frequency, Percentage and Significance of difference in the opinions of the respondents (Administrators, coaches, players and organizers) on statement no. 10 (Sports wings should be introduced in school/colleges/universities for promotion of Lawn Tennis in Chandigarh).

Respondent	Don't Know	Strongly Disagree	Disagree	Agree	Strongly Agree	X <sup>2</sup>
Administrator	0 (0)	0 (0)	4 (8)	14 (28)	32 (64)	73.60*
Coach	0 (0)	1 (2)	4 (8)	19 (38)	26 (52)	55.40*
Player	0 (0)	2 (1.3)	18 (12)	50 (33.3)	80 (53.4)	157.60*
Organiser	0 (0)	1 (2)	10 (20)	18 (36)	21 (42)	36.60*

\*Significant at 0.05 level  $\chi^2$  .05 (4) 9.49 Figure in brackets indicate percentage

Percentage of responses on statement no. 10 on different level is depicted in the table 10. To know the significant difference in the opinion of different respondent on statement no. 10, chi square test was employed. Table 10 revealed that the computed chi square value on statement no. 10 for administrator, coach, player and orgaiser is found to be 73.60, 55.40, 157.60 and 36.60 respectively. These values were found to be significant at 0.05 level of significance with df 4. It implies that there is significant difference in the opinion given by administrators administrator, coach, player and orgaiser on statement no 10 (Sports wings should be introduced in school/colleges/universities for promotion of Lawn Tennis in Chandigarh) of the likert scale. Thus the opinion given by administrators on statement no. 10 (Sports wings should be introduced in school/colleges/universities for promotion of Lawn Tennis in Chandigarh) differ significantly". It can be concluded that Sports wings should not be introduced in school/colleges/universities for promotion of Lawn Tennis in Chandigarh.

### Conclusion

It is evident that Chandigarh Lawn Tennis Association has failed in Management of Lawn tennis, Social environment for development of Lawn tennis, Lawn tennis promotion in Educational Institutions, Finance for development of Lawn tennis and Facilities for development of Lawn tennis.

### References

1. Charles Apple Whaite and Bill Moss, Tennis the Skill of the Game The Crow Wood Press, 1988.
2. Daniel A Arhem. Modern Principles of Athletic Training Santaclara: Mosby College publishing, 1985.
3. Hardyal Singh, Science of Sports Training New Delhi: DVS Publications, 1991.
4. Jean Couvercelle. Your First Book of Tennis London: Philippe Lorin Angus and Robertson Publishers, 1980.
5. Bouchard C, Shephard RJ. Physical activity, fitness and health: The model and Key concepts In: C Bouchard, RJ Shepard, T. Stephens (Eds): Physical Activity Fitness and Health: International Poceeding and consensus statement, Human Kinetics cham Paign (III), 1994, 77-88.
6. Dhayanithi R, Ravi Kumar P. Continuous and Alternats pace endurance Methods and their effects on training and determining on selected physical and Determining on selected physical and psychology variables among boys. Research Bi-annual for movement. 2002; 19(1):16.
7. Esther Hartman *et al.*, the effect of age on physical fitness of deaf elementary school children, pediatric exercise science, Human Kinetics, Inc. 2007; 19:267-278
8. Gaurav V, Singh, A, Singh S. A study of physical fitness variables among baseball players at different level of achievement scientific journal in sports and exercise. 2011; 7(2):34-38.
9. Gentova L. 'Energy and Macro nutrient requirements for

physical fitness in exercising subjects.’ Journal of clinical nutritional, 2010.

10. Gupta, A., Sandhu, J.S. and Koley, S., study on the physical fitness, spinal mobility and flexibility in football, Indian sport studies. 2002; 6(1):1-5.
11. Habbinen A. ‘Association of physical fitness with health related quality of life in finish young men, 2010.
12. [https://en.wikipedia.org/wiki/History\\_of\\_tennis#Origin](https://en.wikipedia.org/wiki/History_of_tennis#Origin)
13. [https://en.wikipedia.org/wiki/History\\_of\\_tennis#International\\_Tennis\\_Federation](https://en.wikipedia.org/wiki/History_of_tennis#International_Tennis_Federation)
14. [https://en.wikipedia.org/wiki/Tennis\\_in\\_India](https://en.wikipedia.org/wiki/Tennis_in_India)
15. <https://en.wikipedia.org/wiki/Chandigarh#History>
16. <http://clta.in/coaching/past-achievements/>
17. <http://clta.in/>