Sociometry in Team Sports – Volleyball Example

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Abstract

Sociometry is a measurement method used to determine the social structure of a particular group, its harmony within itself, the social development of group members, and their place in the group. In team sports, it is necessary to solve the problems between individuals to ensure harmony within the group during the competition preparation process. For this reason, it is significant to use sociometry studies in sports environments. The aim of this study is to learn the characteristics of the selected group and the relationships between team players. The methodology of the study is based on the sociometric method of structural analysis of small groups. Thestudygroupconsists of Ziraat Bank's star men'svolleyball team, which became the champion of Turkey in the 2018-2019 season in the men's star category. The data collection tool consists of 3 questions prepared by scanning similar studies and taking expert opinions. While preparing the questions, the questions were ensured to serve the purpose of sociometry. Considering the results of the study, we can say that on the basis of the players' positions, each player prefers players in a position other than their own. Therefore, they are aware of the need for each other for success. In addition, according to the results of the analysis of the data, the fact that the first choice of thepeoplewesee at thecenter of oursociogram in difficult tasks is those who are not preferred by the social person, which shows us the result that success is not a coincidence, but a professional point of view.

Anahtar Sözcükler: Sociometry, Team Sports, Volleyball.

Introduction

Sports teams are small groups where members stay together for relatively long periods of time and where functional and social cohesion is crucial to the performance and success of the club. The importance of the social element and friendship stated in amateur clubs is emphasized more. (Vojvodić & Jovanović, 2014) Harmony in interpersonal relationships leads to successful cooperation in the playground. Thus, as Sabin and Martin stated in their studies, the interaction process between team members should aim for greater harmony (Sabin 2018, Martin, 2017).

The best performance of the team depends on the ability of the players in the team to show their skills during the competition. The team's ability to show its true potential depends on the harmony between talented athletes. Being in harmony in collaborative sports such as volleyball is very important for team success (Akyüz, 2003).

Sociometry has emerged as a technique that measures human relations, the social cohesion and development of the group, and the distance of the group to itself and to society. Sociometry is a technique used to determine the status of the community within the group and to determine and measure their social status (Moreno, 1960). Sociometry, developed by Moreno, which shapes, supervises, and directs the society that has passed from French to Turkish, means "the effects of social life and friendship on the individual". Sociometry is a science that uses two techniques like psychodrama technique and the test revealing the relationship of a selected group with each other, their attitude, and the social organization within the group (Moreno 1960; Şirin, 1993; Şatıroğlu, 1999).

When the sociometry test, which can be applied to a group of people who know each other, is used effectively, positive results can be achieved. For example, a sociometry test can be applied to the members of any group who have to live or work together, and in-group problems arising from interpersonal interactions can be determined. Afterward, the group can be restructured and the interaction pattern between individuals can be rearranged to eliminate these problems (Dökmen, 2003).

From this point of view, we can state that the aim of our study is to learn the characteristics of the selected group (Ziraat Bank Star Men'sVolleyball Team) and the relationships between the group members (team players).

MaterialandMethod

The study group of our research, which is in the scanning model, consists of Ziraat Bank volleyball team, which ranked 1st in Turkey in the 2018-2019 season in the star men category. 14 team members voluntarily participated in the study and the tests were conducted with the permission of the team responsible. It was stated to the team members that the results of the study would be presented anonymously. The sociometry test was applied in the study. In sociometry tests, each individual in the group is asked which members he or she would like to be with while performing a particular activity. Thus, the sociometric preferences of the group members are determined (Dökmen, 2003). Our sociometry test, which was developed using similar studies (Viktorovna et al. 2019, Vojvodić and Jovanović 2014, Sabin 2018, Lupu 2013), consists of 3 questions. Sociometry test questions are shown in Table 1.

Table 1. Sociometry Test Questions in Volleyball

1-	If you were to attend an event other than sports, which three of your friends would you prefer to attend, respectively?
2-	Which three of your friends would you like to participate in the training in pairs (2 pairs), respectively?
3-	Which three of your friends do you prefer to do the challenging tasks in training and competitions, respectively?

The answers given to the survey questions were marked as +3, +2, and +1 according to the answer order on the previously prepared matrix table. Then, the preference points entered for each player were summed and the preference points of each of the team members were reached. The results obtained were recorded in the sociometric figure table. While the encrypted letters of the individuals were placed in the figure table, a series of decreasing preference scores outward was observed, with the most preferred being in the center. Then, taking into account the 1st preferences of the team members, the arrows indicating the direction of preference were demonstrated in the figure table. In line with the written preferences, it was tried to determine the duals, the excluded, and the leaders within the group.

Findings

Based on the data obtained during the survey, table 2, table 3, and table 4 (encrypted with letters) were created, containing the main answers of the participants. In Figures 1,2 and 3; Sociograms were made based on those selected in the first place based on the preference matrices.

Table 2. If you were to attend an even to the than sports, which three of your friends would

ITEM NO	SELECTED SELECTING	A	B	C	D	E	F	G	H	I	İ	J	K	L	M
	NAME-SURNAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	A (S)		+2			+1									+3
2	B (P)										+2		+1		+3
3	C (S)					+3	+2							+1	
4	D (L)			+3		+2	+1								
5	E (PÇ)			+3	+1		+2								
6	F (L)			+1	+3	+2									
7	G (S)								+3						
8	H (O)				+2			+3						+1	
9	I (S)				+1							+2			+3
10	İ (O)		+1										+3		+2
11	J (P)		+1							+2	+3				
12	K (PÇ)		+1								+2				+3
13	L (O)			+3	+1					+2					
14	M (O)		+3								+2		+1		
	1st preference	0	1	3	1	1	0	1	1	0	1	0	1	0	4

you prefer to attend, respectively?

number														
2nd preference number	0	1	0	1	2	2	0	0	2	3	1	0	0	1
3rd preference number	0	3	1	3	1	1	0	0	0	0	0	2	2	0
TOTAL SCORE	0	8	10	8	8	5	3	3	4	9	2	5	2	13

Figure 1. Communicative situation analysis; "If you were to attend an event other than sports, which three of your friends would you prefer to attend, respectively?"
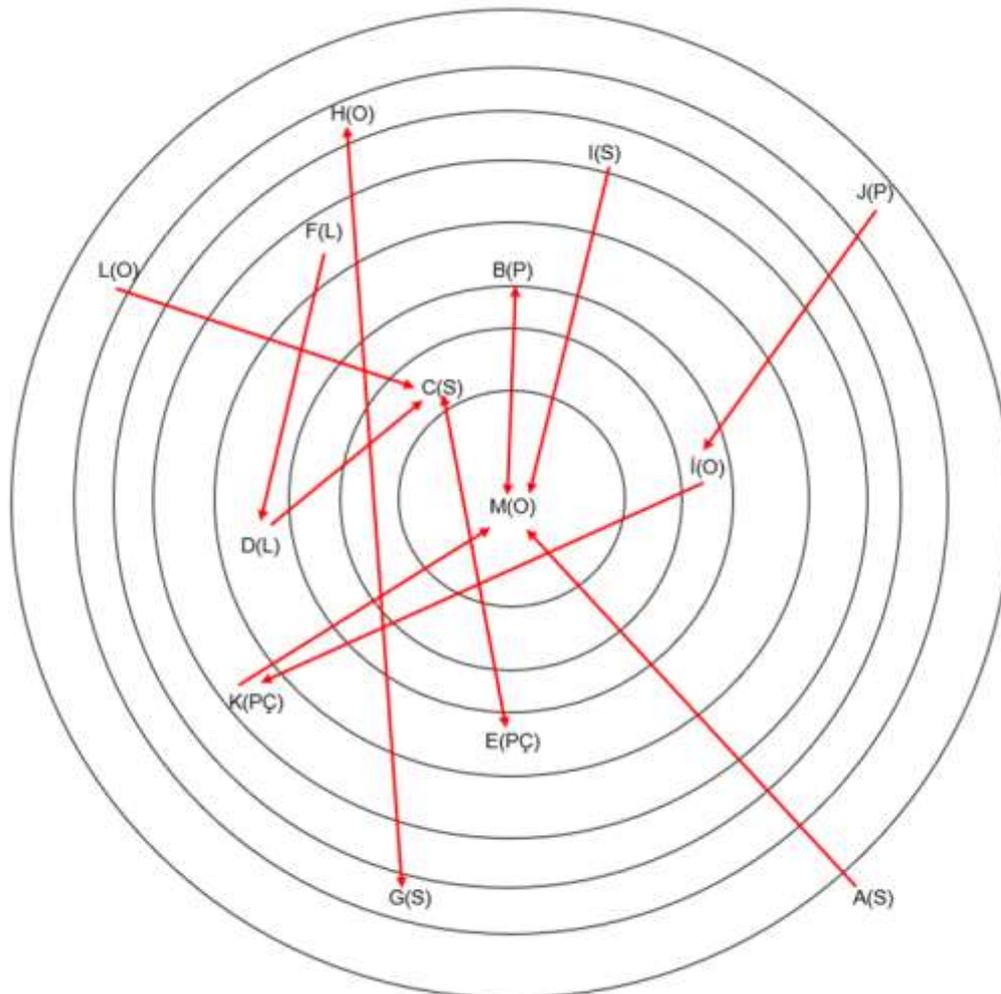
According to the result from Figure 1 and Table 2, we think the most popular name of the team is M, the most preferred name in terms of points. It is seen that A draws attention as "alone" since it is not preferred by anyone. Although there are mutual choices between C - E and B - M, the "clicking" that occurs when H and G are not chosen by anyone, but only choose each other, draws attention.

Table3.Which three of your friends would you like to participate in the training in pairs (2 pairs), respectively?

ITEM NO	SELECTED	A	B	C	D	E	F	G	H	I	İ	J	K	L	M
	SELECTING NAME-SURNAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	A (S)		+3			+1							+2		
2	B (P)			+1		+2									+3
3	C (S)					+2	+1							+3	
4	D (L)					+2	+3								
5	E (PÇ)			+3	+1		+2								
6	F (L)	+3			+1	+2									
7	G (S)		+2						+3					+1	
8	H (O)			+3		+2		+1							
9	I (S)				+3							+2		+1	
10	İ (O)	+2											+1		+3
11	J (P)		+2		+1					+3					
12	K (PÇ)	+3	+2								+2				
13	L (O)			+3	+1					+2					
14	M (O)		+1							+2	+3				
	1st preference number	3	1	3	1	0	1	0	1	1	1	0	0	1	2
	2nd preference number	1	3	0	0	5	1	0	0	2	1	1	1	0	0
	3rd preference number	0	1	1	4	1	1	1	0	0	0	0	1	2	0
	TOTAL SCORE	8	10	10	7	11	6	1	3	7	5	2	3	5	6

Figure 2. Communicative situation analysis;**"**Which three of your friends would you like to participate in the training in pairs (2 pairs), respectively?"
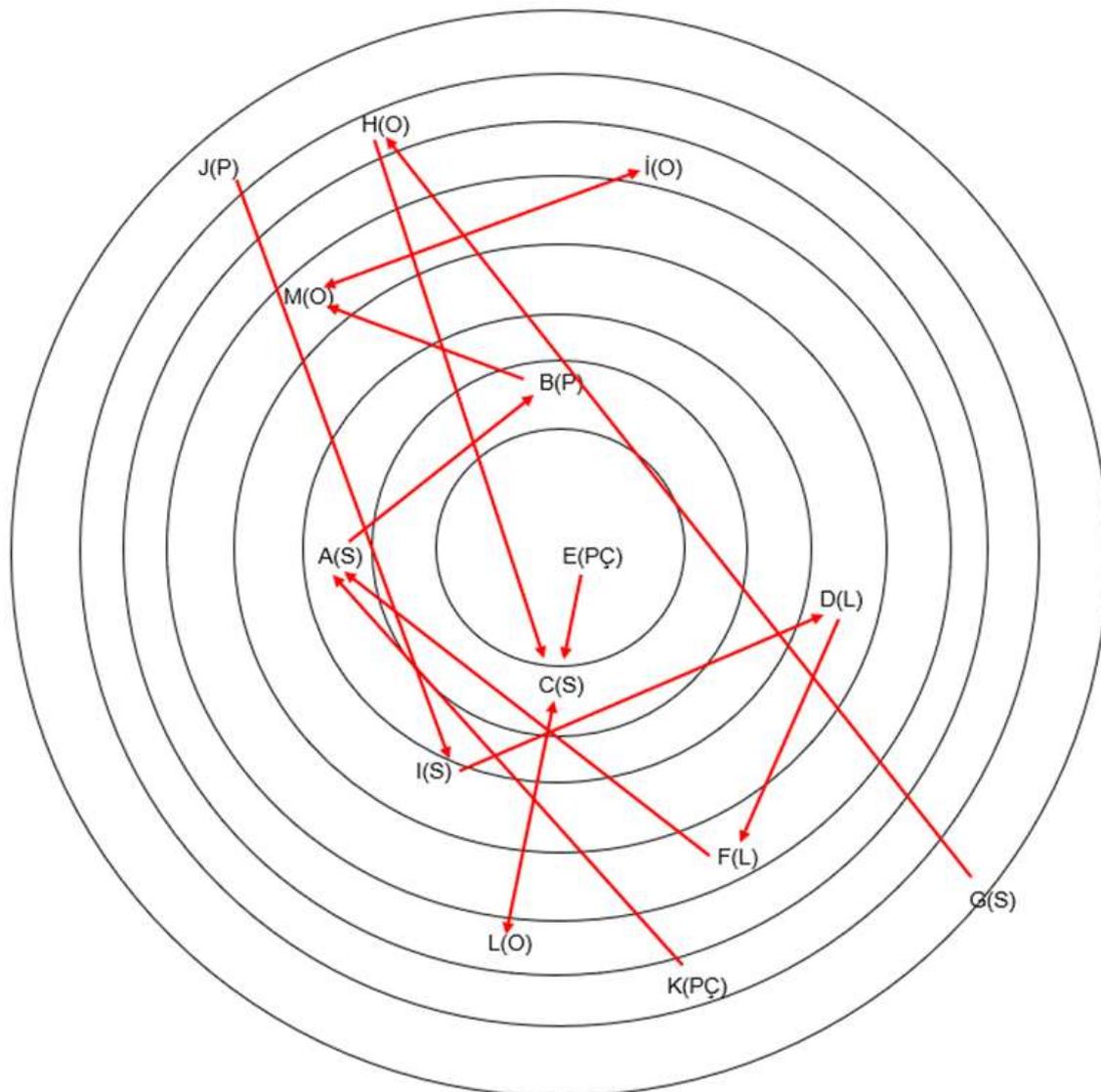
As can be seen from Figure 2 and Table 3, although E is the most preferred name in terms of points, C is the most preferred name in the 1st rank. There is no name that is not preferred by anyone. There are mutual choices, that is, "clicks" between C – L, and M – I.

Table 4.Which three of your friends do you prefer to do the challenging tasks in training and competitions, respectively?

ITEM NO	SELECTED	A	B	C	D	E	F	G	H	I	İ	J	K	L	M
	SELECTING														
	NAME-SURNAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	A (S)		+3			+2									+1
2	B (P)										+1		+2		+3
3	C (S)					+2	+1							+3	
4	D (L)	+2	+3												+1
5	E (PÇ)			+3	+1		+2								
6	F (L)								+1	+2					+3
7	G (S)		+3						+2	+1					
8	H (O)	+3						+2				+1			
9	I (S)		+2		+1										+3
10	İ (O)	+3				+1							+2		
11	J (P)									+2	+3				+1
12	K (PÇ)		+1								+3				+2
13	L (O)		+1	+3						+2					
14	M (O)	+3	+1							+2					
	1st preference number	3	3	2	0	0	0	0	0	0	2	0	0	1	3
	2nd preference number	1	1	0	0	2	1	1	1	4	0	0	2	0	1
	3rd preference number	0	3	0	2	1	1	0	1	1	1	1	0	0	3
	TOTAL SCORE	10	13	6	2	5	3	2	3	9	7	1	4	3	14

Figure 3: Communicative situation analysis;"Which three of your friends do you prefer to do the challenging tasks in training and competitions, respectively?"
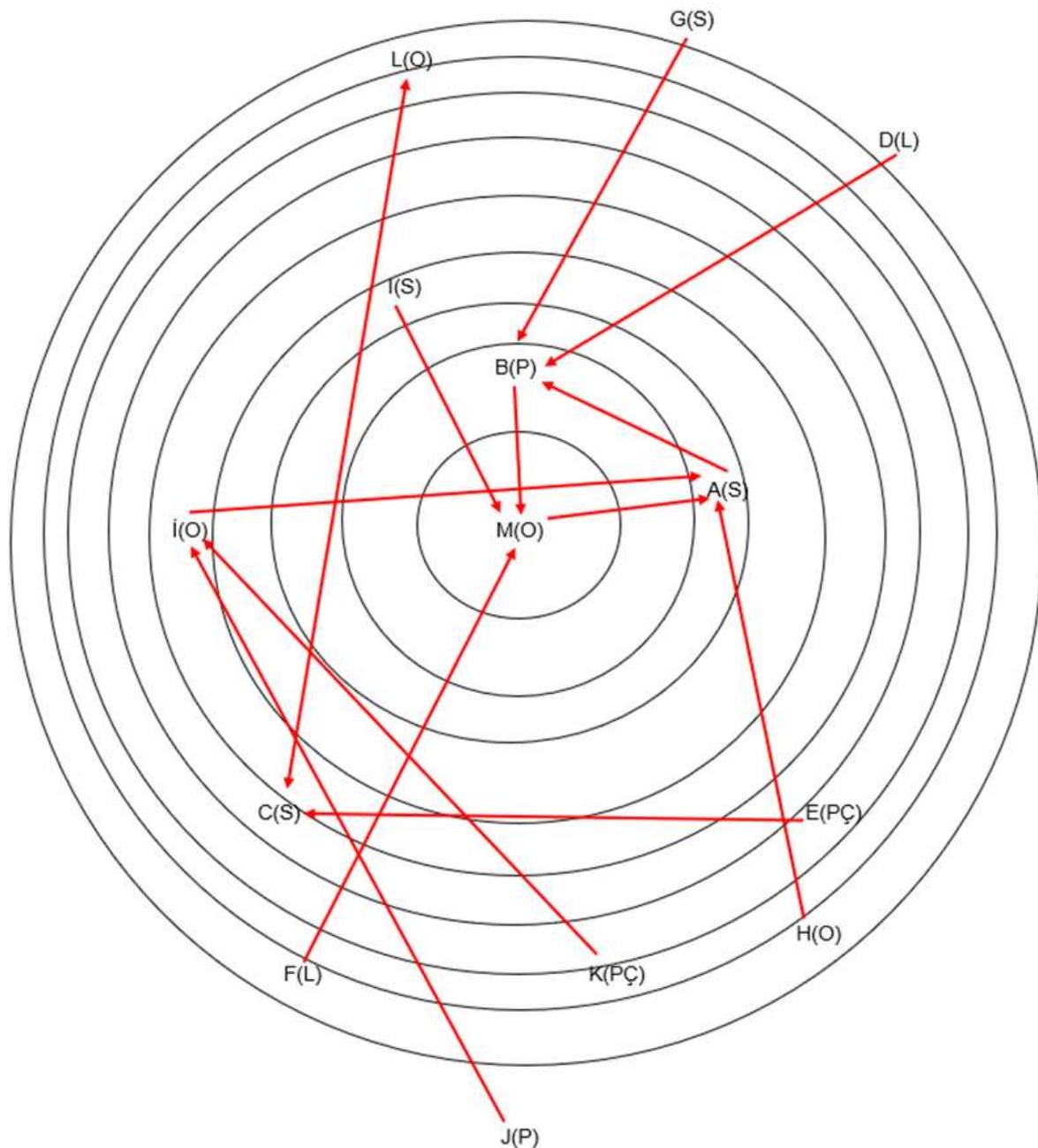
According to the results of Figure 3 and Table 4, M and B, which has the closest values to M, are seen as the most preferred names for difficult tasks. Although there are mutual preferences between C and L, it is seen that there are not many mutual choices. Although we see that J is the least preferred, there is no name that is not preferred by anyone.

Discussion and Conclusion

Considering the findings of the research; first of all, we can say that the answers given to the first question and the answers to the 2nd and 3rd questions differ. In fact, this difference is of great importance. In the first question, which is mostly about leisure time, that is, the preferences in social life, we can identify the popular and unpreferred (excluded) members of the team. However, we see that there are very different preferences when it comes to the 2nd and 3rd questions and the preferences in matches and training. We can clearly observe that the "A" person, who is not preferred by anyone in social life, is highly preferred in paired work and challenging tasks. In particular, the fact that the first preference of the person "M", whom we see in the center of our sociogram in the 1st question, in the 3rd question (difficult tasks), is the person "A", which is not preferred by anyone in the first question that shows the social life, shows us that the success is not a coincidence, but a professional point of view. In addition, when we look at the team in general, it can be thought that the lack of serious groupings is among the factors affecting the success.

Looking at the answers given to the last question on the basis of the players' positions; we can say that each player prefers players in a position other than their own, and therefore they are aware of the need they feel for each other for success. We see that person "B", who is probably the 1st setter, is preferred more than person "J (setter)". This suggests that "B", which is highly preferred by hitters, has an impact on success. The fact that the middle blocker "M", who was preferred with the highest rate, was preferred by the Libero in the first place shows us the importance of the organized work of the top of the net and the ground defense in success.

Looking at similar studies, the study of Vıktorovna et al. (2019), who concluded that the socio-psychological climate in the volleyball team is quite positive, shows similar results to our study. In addition, in the aforementioned study, it is emphasized that creating a harmonious social and psychological environment in team sports is an important task in terms of success. Likewise, Vojvodić and Jovanović stated as well in their study with a volleyball team in 2014, that they reached the image of a team that got along well emotionally and sociologically, and that young players were aware of their functions on the field and behaved in a way that would not disrupt the group atmosphere. Sopa and Pomohacı (2018), in their study on 12 volleyball players, concluded that cohesion in the group increases success and they are aware that they need each other for success.

In Sabin's (2015) study with 12 male basketball players aged 10-12, he stated that the cohesion of the group was very high, but the results of the study could still help in improving group relations, communication, and socialization, and in forming a strong group by reintegrating isolated members into the group. In another study conducted with male handball players between the ages of 19 and 34 and with sports performance between 6 and 10 years, it was emphasized that the preferences of the team players did not coincide with the team composition in the team during the game (Lupu, 2013). Romadhoni et al. (2020), in their study on 15 female handball players, concluded that the handball players' being compatible in their social environments is important for the performance and success of the athletes.

SUGGESTIONS

Looking at the results of our study and similar studies, mostly harmonious and professional thinking team environments were encountered. Similar studies can be applied especially in teams with poor team cohesion and low success rate. In line with the results, it can be recommended to carry out studies to improve the social environment of the teams.

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