

Individual Innovation: A Research on Sports Manager Candidates

Serkan Kurtipek¹ & Nuri Berk Gungor¹

¹ Faculty of Sport Sciences, Gazi University, Ankara, Turkey

Correspondence: Nuri Berk Gungor, Faculty of Sport Sciences, Gazi University, Ankara, Turkey. E-mail: nuriberkgungor@gmail.com

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Abstract

In this study, it was aimed to determine the level of individual innovation of sports manager candidates. The research is designed according to the relational survey model from the survey models. The sample of study consists of 249 sport manager candidates studying in Gazi University and Ankara University Faculty of Sport Sciences Sports Management Department in 2017–2018 spring semester. In the study, in order to collect data, “the Personal Innovation Scale (PIS)”, which was developed by Hurt, Joseph and Cook (1977) and validated by Kilicer and Odabasi (2010) in accordance with the Turkish literature, was used. In the analysis of the data obtained from the study group, the normality test (Kolmogrow-Smirnow and Skewness-Kurtosis), Independent t-test and One Way Anova tests were used. According to the results of the research, it can be stated that the participants’ levels of individual innovation is at the intermediate level and they are included in the “interrogator” category. The Scores of Participants from the Individual Innovation Level Scale do not include any significant difference in the sub-dimensions of idea leadership, openness to experience, risk taking, resistance to change according to the variables of gender and being a licensed athlete; whereas a significant difference was found in favor of 1st and 2nd grades in terms of openness to experience sub-dimension according to the class level variable, and in favor of participants taking part in sports organizations in terms of the idea leadership sub-dimension according to the variable of taking part in sports organizations.

Keywords: individual innovation, sport manager candidates, university student, sport

1. Introduction

One of the most important features that information age brings to societies is innovation. Development and change have created a need for continuous innovation (Atalay, 2018). Innovation has been transformed into a fundamental element of creating a difference, creating an added value in individual, institutional and social aspects in the current century (Ozturk & Summak, 2014). Innovations are spreading to societies at different speeds and this becomes apparent according to individual differences (Rogers, 1983). Thus, individual innovation plays an important role in the realization of objectives in organizations and the rapid dissemination of innovations to societies.

Individual innovation is the individual’s willingness towards innovation, adoption of the innovation, and having a positive perspective towards innovation, using it or benefiting from them (Kilicer, 2011). According to another definition, individual innovation is to be willing to try new things (Pelenk, 2017).

World is changing in technology, industry, art, education and many other fields with each passing day (Akca & Sakar, 2017). This situation deeply affects all the organizations at the present time, where global competition is at the forefront, regardless of the sector. In this process, the way to make the organizations different and efficient is through creativity and innovation. Organizations that adopt the innovative culture and establish this structure get significant gains in adapting to the environment and developments (Bulbul, 2017). Undoubtedly, this also applies to sports organizations.

Sports managers have an important role in building an innovative structure that adopts innovative culture to sports organizations. Considering the characteristics of sports, sports managers, who provide necessary information for the effective and efficient management of sports-related institutions and organizations, and develop and implement methods in light of this information, and again who can create an effective sports environment by applying the innovations, technology and information of the era to management and make necessary changes in the tools and methods used, can enable the sports organizations to its goals much faster.

Indeed, the acceptance of sport as an industry can be considered as a reflection of the existing competition. The fact that the organizational characteristics of a sports club or a sports federation, regardless of the organizational name, is to be open to continuous improvement and renewal is based on the basis of these elements of competition. This understanding is an indispensable dynamic for the sustainability of existence, survival, struggle and representation characteristics in sports organizations.

At this point, based on the idea that the need for qualified managers who are open to the constant change, development and innovations in all stages of sports management and individual innovation levels of sports managers are important for an effective sport management understanding and in the realization of the goals set in sports organizations; starting point of research is the students in the departments of sports management to create a target group that can take roles in different levels and decision making mechanisms (sports clubs, ministry of sports, sports federations, etc.) of sport organizations as potential employment areas and in this respect, describing their levels of individual innovation. Therefore, in this study, it is aimed to investigate the individual innovation levels of sports manager candidates in terms of different variables.

2. Methodology

This section contains information about the research model, the study group, the data collection tool and the analysis of the data.

2.1 Study Model

The research was designed according to the relational survey model from the survey models. Relational survey is used to determine the relationship between two or more variables and to obtain clues about cause and effect (Buyukozturk, Kilic-Cakmak, Akgun, Karadeniz, & Demirel, 2014; Karasar, 2017). In this study, the relationship between the sport manager candidates' gender, class, status of being licensed athletes and status of taking part in sport organizations and their individual innovation levels were trying to be described, and revealing the current situation of the levels of individual innovation of sports manager candidates was aimed.

2.2 Study Group

The sample of the study consists of 249 sport manager candidates studying in Gazi University and Ankara University Faculty of Sport Sciences Sports Department of Management in 2017–2018 spring semester. In order to determine the study group, easily accessible sampling method from the purposeful sampling methods was used.

2.3 Data Collection Tool

In the study, in order to collect data, “the Personal Innovation Scale (PIS)”, which was developed by Hurt, Joseph and Cook (1977) and validated by Kilicer and Odabasi (2010) in accordance with the Turkish literature, was used. The Individual Innovation Scale consists of 20 items. Five-point Likert-type ratings as “Strongly Agree”, “Agree”, “Neutral”, “Disagree”, “Strongly Disagree” were made for responses to scale items. Twelve of the items constituting the scale are positive expressions (1, 2, 3, 5, 8, 9, 11, 12, 14, 16, 18 & 19) and eight of them are negative expressions (4, 6, 7, 10, 13, 15, 17 & 20). According to the innovation score calculated with the help of scale, in general, innovation levels of individuals can be evaluated and individuals can be categorized in terms of innovation according to determined score ranges (Hurt, Joseph & Cook, 1977).

In the first step of the calculation of the innovation score, the scores of positive items (1, 2, 3, 5, 8, 9, 11, 12, 14, 16, 18 & 19) were collected and in the second step, the scores of negative items (4, 6, 7, 10, 13, 15, 17 & 20) were collected. In calculating individual innovation score, the formula of “ $42 + (\text{total score of positive items}) - (\text{total score of negative items})$ ” was used. If the total scores obtained from the participants are over 80 scores, they are categorized as innovative, and they are categorized as leader if they are between 69 and 80 scores and as interrogator if between 57 and 68 scores, as sceptic if between 46 and 56 scores and as traditionalist if below 46 scores. At the same time, if participants' individual innovation score was greater than 68, they were considered highly innovative, as moderately innovative if between 68 and 64, and as lowly innovative if lower than 64 (Hurt, Joseph & Cook, 1977).

2.4 Data Analysis

In the analysis of the data, firstly, whether the data were suitable for normal distribution was examined by taking Kolmogorov Smirnow test and kurtosis-skewness coefficients. It was determined that parametric tests would be done by rejecting hypothesis H₀. Independent t test and One Way Anova test from parametric tests were applied. The significance value of the data was determined as 0.05.

3.Results

In this section, the research findings revealed by statistical analyzes are given in tables.

Table 1. The mean score of the participants from the individual innovation level scale

Individual Innovation Level	N	\bar{x}	S
	249	62.04	10.32

According to Table 1, it is seen that the total score of the participants from the Individual Innovation Scale is $\bar{x}=62.04$. According to the total mean score, it can be stated that participants are “moderately innovative”. However, the participants are in the “interrogator” category with $\bar{x}=62.04$.

Table 2. T-test results of the individual innovation levels of sports manager candidates according to the gender variable

	Gender	N	Mean	Sd	sd	t	p
Idea Leadership	Male	155	18.83	4.27	247	.76	.93
	Female	94	18.87	3.52			
Openness to Experience	Male	155	19.32	4.34	247	.56	.95
	Female	94	19.29	4.05			
Risk Taking	Male	155	6.89	1.82	247	.83	.40
	Female	94	7.08	1.69			
Resistance to Change	Male	155	21.43	5.28	247	1.70	.08
	Female	94	22.60	5.16			
Total	Male	155	65.61	10.92	247	.73	.46
	Female	94	64.64	8.28			

When Table 2 is examined, in the analyses performed according to gender, there was no significant difference in the sub-dimensions of idea leadership ($t_{247}: 0.76; p>0.05$), openness to experience ($t_{247}: 0.56; p>0.05$), risk taking ($t_{247}: 0.838; p>0.05$), resistance to change ($t_{247}: 1.706; p>0.05$) and according to the total individual innovation score ($t_{247}: 736; p>0.05$).

Table 3. T-test results of the individual innovation levels of sports manager candidates according to the variable of being licensed athlete

	Licensed	N	Mean	Sd	sd	t	p
Idea Leadership	Yes	159	18.88	4.42	247	.17	.86
	No	90	18.78	3.12			
Openness to Experience	Yes	159	19.22	4.72	247	.48	.63
	No	90	19.48	3.19			
Risk Taking	Yes	159	6.82	1.83	247	1.65	.09
	No	90	7.21	1.65			
Resistance to Change	Yes	159	22.05	5.12	247	.68	.49
	No	90	21.57	5.49			
Total	Yes	159	64.87	11.29	247	.78	.43
	No	90	65.91	7.20			

In Table 3, in the analyses conducted according to the status of being licensed athlete, there was no significant difference in the sub-dimensions of idea leadership ($t_{247}: 0.76; p>0.05$), openness to experience ($t_{247}: 0.56; p>0.05$), risk taking ($t_{247}: 0.838; p>0.05$), resistance to change ($t_{247}: 1.706; p>0.05$) and according to the total individual innovation score ($t_{247}: 736; p>0.05$).

Table 4. Anova results of individual innovation levels of sports manager candidates according to class level variable

		Sum of Squares	sd	Squares Mean	F	p	Significant Difference
Idea Leadership	Between Groups	95.98	3	31.99	2.02	.11	
	In-groups	3872.21	245	15.80			
	Total	3968.20	248				
Openness to Experience	Between Groups	189.75	3	63.25	3.65	.01	In favor of 1 st and 2 nd grades between 1 st and 2 nd grades and 4 th grade
	In-groups	4244.18	245	17.32			
	Total	4433.93	248				
Risk Taking	Between Groups	.71	3	.23	.07	.97	
	In-groups	781.96	245	3.19			
	Total	782.67	248				
Resistance to Change	Between Groups	82.37	3	27.45	.99	.39	
	In-groups	6772.00	245	27.64			
	Total	6854.38	248				
Total	Between Groups	368.48	3	122.82	1.23	.29	
	In-groups	24460.07	245	99.83			
	Total	24828.56	248				

In Table 4, when Anova results were examined according to the class level to determine whether there was a difference, it was figured out that there was no statistically significant difference in the overall scale according to the class level ($F(3,245)=2.024$; $p>0.05$). Similarly, according to the class level, there was no statistically significant difference between scores from the idea leadership sub-dimension ($F(3,245)=2.024$; $p>0.05$), the scores from the resistance to change sub-dimension ($F(3,245)=0.993$; $p>0.05$), the scores taken from the risk-taking sub-dimension ($F(3,245)=0.074$; $p>0.05$). However, in the sub-dimension of openness to experience, there was a statistically significant difference between the 1st and 2nd grade students and 4th grade students in favor of the 1st and 2nd grade students ($F(3,245)=3.651$; $p<0.05$).

Table 5. T-test results of individual innovation levels of sports manager candidates according to the variable of taking part in sports organizations

	Taking Part	N	Mean	Sd	sd	t	p
Idea Leadership	Yes	158	19.27	3.99	247	2.25	.02
	No	91	18.09	3.91			
Openness to Experience	Yes	158	19.48	4.26	247	.83	.40
	No	91	19.02	4.17			
Risk Taking	Yes	158	6.92	1.68	247	.46	.64
	No	91	7.03	1.93			
Resistance to Change	Yes	158	22.04	5.24	247	.65	.51
	No	91	21.59	5.29			
Total	Yes	158	65.64	10.17	247	.82	.41
	No	91	64.56	9.71			

In Table 5, in the analyses conducted according to the status of taking part in sports organizations, there was no significant difference in the sub-dimensions of openness to experience (t_{247} : 0.836; $p>0.05$), risk taking (t_{247} : 0.465; $p>0.05$), resistance to change (t_{247} : 651; $p>0.05$) and according to the total individual innovation score (t_{247} : 0.824; $p>0.05$). However, according to the status of taking part previously in organizations, between the scores from the idea leadership sub-dimension it was determined that there was a significant difference in favor of sports manager candidates taking part in organizations (t_{247} : 2.259; $p<0.05$).

4. Discussion and Conclusion

In this study, it was aimed to examine the individual innovation levels of sports manager candidates according to different variables. When the research results are examined, it can be stated that the level of individual innovation of the participants is moderate. However, according to the total mean score taken from the Individual Innovation Scale, it was determined that the participants were included in the integrator category. The studies of Yenice and Yavasoglu (2018), Yilmaz Ozturk and Summak (2014), Koroglu (2014), Yilmaz (2013) and Sahin and Thompson (2006) are in parallel with the results of the current research. It can be said that the participants in

this category reflect characteristics such as avoiding sudden and quick decision making and tending to resist changes that may arise.

The Scores of Participants from the Individual Innovation Level Scale do not include any significant difference in the sub-dimensions of idea leadership, openness to experience, risk taking, resistance to change according to the variables of gender and being a licensed athlete; whereas, according to the class level variable, a significant difference was found in the openness to experience sub-dimension and there was a significant difference according to the variable of taking part in sport organizations in terms of the idea leadership sub-dimension.

When the gender variable was considered, it was concluded that the individual innovation levels of the participants did not show a significant difference. In the study conducted by Ozgur (2013) on teacher candidates, it is seen that gender variable does not differ significantly. In addition, Kilic (2015) found that there was no significant difference according to the gender variable in the study on teachers' level of individual innovation. In addition, Karadag (2018), Korucu and Olpak (2015), Argon, Ismetoglu and Celik Yilmaz (2015), Demir-Basaran and Keles (2015), Kilic and Ayvaz-Tuncel (2015), Adiguzel, Kaya, Balay and Gocen (2014), Cuhadar, Bulbul and Ilgaz (2013), Bitkin (2012), Kert and Tekdal (2012), Kilic (2011) and Rogers and Wallace (2011) found that there was no significant difference between the level of individual innovation and gender variable. Furthermore, Yuksel (2015) and Ozturk-Yurtseven and Aldan-Karademir (2017) found that the level of individual innovation differs in favor of male participants. In the related literature, it is possible to state that the level of individual innovation in general does not differ when the gender variable is considered.

When the level of individual innovation of the participants shows a significant difference between the 1st and 4th grades and the 2nd and 4th grades in the openness to experience sub-dimension according to the class level variable. This difference is in favor of the participants studying at the 1st and 2nd grade level. Sari and Kartal (2018) determined in the study carried out on the candidate teachers that the level of individual innovation of 1st grade participants were higher than that of the level of individual innovation of 3rd grade participants. Sevinc Tirpan (2016) also found a significant difference in favor of the 1st grade participants in the study on the students in the Sport Management Department in the sub-dimension of resistance to change. Ozgur (2013) found that the levels of individual innovation of teacher candidates differed significantly in favor of participants studying in the 4th grade according to the class level variable in the sub-dimension of openness to experience. In addition, Adiguzel (2012), Korucu and Olpak (2015), Ertug and Kaya (2017) and Mulhim (2018) found a significant difference between the participants' individual innovation levels and the grade level variable. However, there are also studies in the literature that differ with the results of the current research. Yapici (2016), Yenice and Yavasoglu (2018), Orun, Orhan, Donmez and Kurt (2015) and Yegin (2017) found that there was no significant difference between individual innovation level and grade level variable. Considering the study result, the fact that there is a significant difference in favor of the 1st and 2nd grade participants supports some of the study results in the literature, but it also differs with others. The first years of the university, which is a period in which students who are trying to adapt to a different education environment after their high school education, internalize the differences, are considered as a period where the individuals are more open to new ideas and formations. Therefore, it is foreseen that the participants' openness to innovation causes the results of the study.

The findings which is related to the variable of being a licensed athlete dealt with in the study do not show significance when the individual innovation levels of the participants are taken into consideration. Although the number of researches in which the relevant variable is addressed is insufficient, the literature supports the results of the study. Yegin (2017) also stated that there is no significant difference between the level of individual innovation and the variable of being a licensed athlete. Another variable emphasized within the scope of the study is the status of taking part in any organization. When the results of the study are examined, it is seen that there is a significant difference in favor of the participants taking part in organizations, in the idea leadership sub-dimension. The practical experience of the participants in the organization process revealed the chance to make an inference on the subject. This inference has made the phenomenon of organization permanent in the minds of individuals as a synthesizing step. Therefore, it can be stated that the significant difference in the idea leadership sub-dimension is rational.

The results of the study emphasize that it was important for the students of the sports management department to take part in the organizations before. It is clear that experiencing this process is imaginative, and important in terms of the formation of opinions about the subject before entering the work life. From this point of view, it is considered that it would be beneficial to ensure that the students in the related department take a voluntary position in sports organizations in order to increase their awareness. In addition, the fact that the level of individual innovation is in favor of 2nd grade students reveals the need for various activities and seminars related

to the subject during the university education. For this reason, it is recommended to plan activities related to the subject in order for students not to lose the motivation of innovation in the academic and social sense.

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