

# Analysis of the Perceptions of Student-Athletes Playing In the Universities Volleyball 2nd League in Turkey towards the Event Quality

Ahmet Atalay<sup>1</sup>, A. Kürşad Akbulut<sup>1</sup>, Özgür Karataş<sup>2</sup>, Serkan Hacıcaferoğlu<sup>3</sup> & A. Serdar Yücel<sup>4</sup>

<sup>1</sup> Ardahan University School of Physical Education and Sports, Ardahan, Turkey

<sup>2</sup> İnönü University School of Physical Education and Sports, Malatya, Turkey

<sup>3</sup> Recep Tayyip Erdoğan University, School of Physical Education and Sports, Rize, Turkey

<sup>4</sup> Firat University, Faculty of Sports Sciences, Elazığ, Turkey

Correspondence: A. Serdar Y ücel, Fırat University, Faculty of Sports Sciences, Elazığ, Turkey

Received: February 25, 2015	Accepted: March 12, 2015	Available online: March 20, 2015
doi:10.11114/ijsss.v3i3.733	URL: http://dx.doi.org/10.11114/ijsss.v3	i3.733

## Abstract

The purpose of this research is to analyze the perceptions of student-athletes who played in Universities Volleyball Second League competitions held in Antalya on 16<sup>th</sup>-27<sup>th</sup> December 2014 towards the event quality. Target population of the study is composed of the student-athletes studying in universities in Turkey and playing in the volleyball teams of universities at the same time, and the sample group of the study is composed of 23 student-athletes from different universities who participated in Universities Volleyball Second League held in Antalya on 16<sup>th</sup>-27<sup>th</sup> December 2014. With the purpose of determining the perceptions of student-athletes towards quality, the participants were applied a survey. SPSS (Statistical Package for Social Sciences) for Windows 21.0 program was used in the analysis of data. Descriptive statistics, t-test for determining the difference between two groups, One-way Anova test for comparisons of more than two groups and post-hoc test for group differences were used. In conclusion, it has been determined that the quality perceptions of the participants regarding the event held are positive. It has also been demonstrated that there are differences in the quality perceptions of the participants by their families' educational background; however, a significant difference hasn't been observed by age, sex, grade point average and income level.

Keywords: Volleyball, Quality Perception, Universities Volleyball Second League

## 1. Introduction

Life cycle has changed along with the development of information age, and some differences occurred in the people's perceptions towards life. In parallel to the increase in expectations, satisfaction level of individuals regarding the goods and services offered have also changed. People have started to act more selectively in evaluation of the quality of products and services consumed; the perceptions of individuals concerning their quality of life and the emphasis on expected quality have become clear. Concrete status of the benefit ensured in products and services can be called quality. While Yıldız (2010) defines quality as the degree of meeting the expectations and needs of customers, Zengin and Erdal (2000) define it as the ability of a product's or service's features to meet current or future needs of the recipient.

While explaining the quality regarding products and services, Ardıç and Sadaklıoğlu (2009) state that there are some problems experienced in applying the concept of quality, which is easy to apply to concrete products, to such abstract products as service, and this difficulty arises from the facts that the service is abstract, production and consumption is simultaneous, and service is combined with producer (Ardıç and Sadaklıoğlu, 2009).

Regarding the service sector, Zengin and Erdal (2000) express that the service sector is gradually gaining importance and a great share within the national economics and this condition leads to the fact that the weight of this sector within the economy is becoming important as a criterion of development. They also emphasize that settlement of the sense of quality within service sector and determination of the quality standards requires increase in quality and the components of service quality (Zengin and Erdal, 2000). Devebakan and Aksaraylı (2003) point out that quality practices applied in manufacturing sector should be also discussed in terms of service sector as a necessity of the sense of quality in service sector.

But the quality assessment process in service sector is different from manufacturing sector. Torlak (2009) states that the

quality of service has the ability to meet the customer expectations, and the quality has a performance level perceived by the consumer. Evaluated in this term, it can be expressed that quality assessment of services is equivalent to the benefit obtained by consumers.

One of the most important elements of service sector is sports services and events. Meeting the personal and social demands specific to sports has contributed a new dimension to sports in service sector.

Sports is an important factor in raising qualified individuals who have completed their mental, social and emotional development. It can also be expressed that it is an important supporter of socialization process in children and the young (Ko çak et all., 2013; Pherson, 1981). Participation in regular physical activity supports the process of healthy aging not only for children and the young but also for adults, and it also makes significant contributions to the development of cognitive functions (Booth et all., 2000; Weuve et all., 2004).

The definition of sports service can be defined as "abstract and unlike overall activities that meet people's needs regarding sports, and provide such benefits as having fun, keeping away from the stress, being healthy, looking good, socialization and combatting" (Çimen and Gürbüz, 2007).

Today, sports is accepted as an important service sector due to its attributes that improve and protect personal and social health (Can et all., 2000: As quoted by: Devecioğlu et all., 2011). Sports and physical activity services make important contributions to individuals and the society. Therefore, participation of masses as participants or audiences has made sports and physical activity services an important dynamics of economy (Yıldız, 2010).

Quality assessment and practices of sports events having gradually increasing importance within the general economy are taken into consideration by the participants; so it is no wrong to say that personal and social awareness has an effect on this. People's expectation for benefit and their search for physical and mental satisfaction increasingly highlight the emphasis on quality in sports events and services. Number of people who benefit from sports events held and the frequency of participation in these events have become directly related to the quality of these services, and people's demand to get maximum benefit from sports which is a protective health services has appeared.

The studies conducted regarding sports service quality are directed to relations between customer satisfaction level, quality of service, comparison of the expectations and perceptions of individuals doing sports and customer satisfaction (Yücel, 2012). In this regard, the purpose of this study is to evaluate the quality perceptions of the participants (student-athletes) regarding a sports service offered in terms of different variables.

### 2. Material and Method

The purpose of the study was to analyze the quality perceptions of student-athletes regarding the sports event held in terms of different variables. In this sense, survey method was used in order to obtain data. The survey used is the scale named "Turkish Interpretation of Quality Perception Scale of the Event: World Indoor Championship in Athletics Istanbul 2012" developed by Şimsek (2014) with Cronbach's Alpha coefficient found as 0.898 (Şimşek, 2014). Data obtained from the research were analyzed by using SPSS (Statistical Package for Social Sciences) for Windows 21.0 program. Descriptive statistics, t-test for determining the difference between two groups, One-way Anova test for comparisons of more than two groups and post-hoc test for group differences were used in analysis of data. Findings obtained were evaluated within the confidence interval of 95% and at the significance level of 5%. With the purpose of testing the reliability of the scale, Cronbach's alpha analysis was applied and Cronbach's alpha value of .883 was found.

### 3. Findings

In this part, there are there are findings obtained following the analysis of data of the participants. Explanations and interpretations have been made based on the findings obtained.

Tables	Groups	Frequency(n)	Percentage (%)
Age	18-20 years	116	33,1
	21-22 years	156	44,6
	23-25 years	78	22,3
	Total	350	100,0
Sex	Male	180	51,4
	Female	170	48,6
	Total	350	100,0
Grade Point Average	1-1.99	27	7,7
	2-2.49	135	38,6
	2.5-2.99	126	36,0

 Table 1. Descriptive Statistics of the Participants

	3- 3.49	44	12,6
	3.5-4	18	5,1
	Total	350	100,0
Income	Below 1000 TL	92	26,3
	Between 1000-1499 TL	104	29,7
	Between 1500-1999 TL	61	17,4
	Between 2000-2499 TL	38	10,9
	2500 TL and above	55	15,7
	Total	350	100,0
Family's Educational Background	Primary School	69	19,7
	Secondary School	187	53,4
	College and Undergraduate	94	26,9
	Total	350	100,0

According to Table 1, 33.1% of the participants are aged between 18-20, 44.6% is aged between 21-22, and 22.3% is aged between 23-25. 51.4% of the participants are male and 48.6% is female. Regarding the grade point average of the participants, the majority (38.6%) of the participants have between 2-2.49 and (%36,0) 2.5-2.99. Concerning the income distribution of the participants, 26.3% earns below 1000 TL and 29.7% earns between 1000-1499 TL. When we look at the educational background of participants' families, we see that 69 of them are primary school (19.7%), 187 of them are secondary school (53.4%), 94 of them (26.9%) are college and undergraduate school graduates.

Table 2. Average Age of Athletes

	Ν	Aver.	Ss	Min.	Max.
Age	350	21,277	1,652	18,000	25,000

When we look at the Table 2, it is seen that average of participants is  $21,277 \pm 1,652$ .

Table 3. Average Quality Perception of Athletes

	Ν	Aver.	Ss	Min.	Max.
Quality perception	350	4,082	0,438	2,030	5,000

When we look at the Table 3, it is seen that the "quality perception" level of participants is high (4,082  $\pm$ 0,438).

Table 4. Averages of Quality Perception by Family's Educational Background

	Group	Ν	Aver.	Ss	F	р	Difference
	Primary School	69	4,079	0,415	_		
Quality perception	Secondary School	187	4,038	0,459	3,032	0,049	3 > 1
	College and Undergraduate	94	4,173	0,402	_		

Regarding the educational background of the participants' families, a significant difference is observed at quality perception levels (p<0,050). As a result of the complementary post-hoc analysis which is made with the purpose of determining the sources of differences, quality perception scores of the families with college and undergraduate degree (4,173  $\pm$  0,402) has been found to be significantly higher than the quality perception scores of the families who are primary and secondary school graduates (4,079  $\pm$ 0,415).

Table 5. Averages of Quality Perception by Income

	Group	Ν	Aver.	Ss	F	р
	Below 1000 TL	92	4,016	0,447	_	
Quality perception	Between 1000-1499 TL	ween 1000-1499 TL 104 4,132 0,4		0,407		
	Between 1500-1999 TL	61	4,047	0,519	1,258	0,286
	Between 2000-2499 TL	38	4,072	0,378		
	2500 TL and above	55	4,146	0,416		

A significant difference isn't observed in quality perception dimensions of participants by the income variable (p>0.05). Income doesn't significantly affect the quality perception levels.

Table 6. Averages of Quality Perception by Grade Point Average

	Group	Ν	Aver.	Ss	F	р
Quality perception	1-1.99	27	4,022	0,523	_	
	2-2.49	135	4,043	0,465	_	
	2.5-2.99	126	4,120	0,361	0,739	0,566
	3- 3.49	44	4,118	0,508	_	
	3.5-4	18	4,119	0,423		

A significant difference isn't observed in quality perception dimensions of participants by the grade point average variable (p>0.05). Grade point average doesn't significantly affect the quality perception levels.

Table 7. Averages of Quality Perception by Age

	Group	Ν	Aver.	Ss	F	р
	18-20 years	116	4,083	0,449		
Quality perception	21-22 years	156	4,079	0,416	0,009	0,991
	23-25 years	78	4,087	0,469	-	

A significant difference isn't observed in quality perception dimensions of participants by age variable (p>0.05). Age variable doesn't significantly affect the quality perception levels.

 Table 8. Averages of Quality Perception by Sex

	Group	Ν	Aver.	Ss	t	р
Quality perception	Male				1 2 6 0	0,172
	Female				1,509	

As a result of the t-test which is made with the purpose of determining whether the averages of the participants' quality perception scores differ significantly by the sex variable, the difference between group averages hasn't been found statistically significant (t=1,369; p=0,172>0,05).

#### 4. Discussion and Conclusion

Individuals participate in cultural, artistic, social and sports events in order to give a meaning to their existence, they try to enrich their lives. The ability of sports events held or to be held to reply this process is directly related to the event quality. Frequency, demand and desire of participation in events take shape according to the satisfaction level of participants, and participant satisfaction is constituted according to quality perception of the event.

The quality of sports events offered directly affects the satisfaction level of all participant groups, and satisfaction becomes the determiner in dependence levels of those who participate in these events for the first time (Avaurdiadou and Theodorakis, 2014). Therefore, as the quality of sports events affects the participation frequency and level, there is a linear relation between increasing the participation in sports in society and the quality of events.

In this sense, regarding this study in which perceived quality of sports events participated by those studying in universities and taking part in sports teams of universities is evaluated, it can be said that the 2nd league volleyball competitions held in Antalya on December 16th-27th 2014 are perceived as an event of high quality by participants (X=4,082).

Although a significant difference hasn't been found in terms of such variables as age, sex, grade point average and income level in this study where demographic attributes of participants are evaluated, a significant difference has been determined in terms of the educational background of the families of participants. Quality perception of the families having college and undergraduate degree  $(4,173 \pm 0,402)$  has been found to be significantly higher than the quality perception scores of the families having primary school and secondary school degree  $(4,079 \pm 0,415)$ .

Although a significant difference hasn't been determined specific to education variable, it is hard to say that the score gap is highly determiner. It is observed that the averages are so close to each other. Therefore, it won't be wrong to say that many different variables are determiner in quality assessment. As consciousness level of individuals may sometimes not be directly proportionate to educational level. Sense of like and benefit may be similar despite different socio-economic features, and level of consciousness also affects this process.

Abraham Maslow suggests that people should be motivated by the needs that must be met, and sports that can be

considered within the social needs ranking among the hierarchy of needs is a tool which can be used in motivation of a healthy life (İmamoğlu and Ekenci, 2014). Therefore, parallelism between the perceived and expected quality criteria of sports services or events offered may affect the frequency and desire of participation positively.

In the study conducted by Gencer et all. (2008) it is seen that quality perceptions of the participants are below the averages for all dimensions when the current perceptions of the participants are examined. When the existing literature is analyzed, it is observed that an insufficiency exists regarding the quality perception both for the sports and general service and events.

In a study conducted by Bircan and Baycan (2004) directed to health services, the majority of the participants consider the service quality inadequate. It is also observed in a study by Filiz et all. (2010) concerning services that the event quality is inadequate. Similar results have been achieved in a research carried out by Hemedoğlu (2012) and service quality couldn't reply to expected perceptions.

As expressed above, our society has raised their expectations about the services and events offered and raised the bar of total benefit together with the increase in the level of social consciousness. As a society which is composed of different social layers, it is found the lowest common denominator regarding event quality, and event providers must make an improvement about this situation.

Similar results have been yielded in studies conducted within the scope of university services, it has been understood that universities fall short in terms of service and event quality (Sahin, 2011). In the research by Yılmaz et all. (2007) it is seen that service quality perceptions of the students of Anadolu University are higher than the students of Osmangazi University.

Placement and implementation of quality standards in event and service sector is quite difficult in comparison to manufacturing sector. The determining element is satisfaction and benefit due to being human-centered.

As different from the product quality, abstract nature of the service offered has caused inadequate objective dimension in measurement of service quality. In absence of objective dimensions, the emphasis was on the quality perceived by the customer for the measurement of service quality (T ürk 2009). Therefore, it should be known what the perception modes of customers are and on what kinds of factors they depend for improvement of services (Ers öz et all., 2009).

At this point, Murray and Howat (2002) who make an assessment specific to sports events express that quality is directly related to satisfaction in sports events, and this satisfaction is put forth by the participants.

Although sports events and services rank among the general service sector, they also incorporate some kinds of differences. Production and consumption process of these events contain such motivation elements as being healthy, socialization, cognitive and mental satisfaction in addition to benefit and satisfaction.

Clemes et all. (2011) have discussed the quality of sports events under 11 subtitles. These are security, performance, catering services, players, social circle, cleaning, sound and video, design of sports area, atmosphere, quality of game and entertainments on event day. Concerning the organization of sports events with high quality, Parasuraman et all. (1998) point out that facility, equipment and staff should be sufficient, participants must be helped in a swift and honest way, and the events guaranteed must be held completely (Lee et all., 2011).

Sports facilities are highly effective in determination of the quality of sports events in terms of participant satisfaction. Rozita et all. (2014) state that the primary factor that determines the quality of sports events is sports facilities, and appropriate hours of facility, ambiance of the facility and the competence of the facility's staff are important in order to hold events of high quality. Cui and Su (2014) are of the opinion that the reason why the quality of sports events is insufficient is unsatisfactory facilities and areas.

In a research by Hacıcaferoğlu et all. (2012) 36% of the participants have stated that the desired guidance is absent in the use of facilities, and therefore they can't participate in events. In this sense, it is necessary to arrange events of high quality, to increase the frequency of participation in these events, to form true facility understanding and to increase the business performance of current facilities.

The main factor that determines the quality of sports events is human. As physical and social satisfaction levels of the participants on the axis of benefit and satisfaction appraise the quality of events. Therefore, reaching to the top level of satisfaction and making the quality assessment in a positive way are related to accessibility to events and participation. In this regard, the efficiency of sports fields and facilities should be increased, the measures facilitating the participation should be taken in the design of new facilities, and the business performance of current facilities must be improved.

It can also be uttered that the consciousness level of societies must be monitored, and the measures directed to increasing the desire and perception should be taken. Following the increase in the rate and frequency of participation, expected and perceived quality perceptions will be identified with current measurements in regard to higher level of

participation, and thus shortcomings and needs concerning sports services and events will be determined.

As a result, volleyball 2nd league competitions held in Antalya are characterized as successful and of high quality. However, the limitations about the sample group prevent the generalization of this situation. Therefore, it can be expressed that quality perception of events specific to sports should be disseminated to the whole country with a more comprehensive research, and more generalizable results should be achieved.

#### References

- Ardıç, K., & Sadaklıoğlu, H. (2009). Şehirlerarası yolcu taşımacılığında hizmet kalitesinin ölçümü: Tokat örneği (Measurement of service quality in intercity passenger transportation: Tokat sample). Atatürk University İİB Journal, 23(3), 167-190.
- Avaurdiadou, S., & Theodorakis, N.D. (2014). Development of loyalty among novice and experienced costumers of sport and fitness center. *Sport Management Review*, 17(4), 419-431. http://dx.doi.org/10.1016/j.smr.2014.02.001 Bircan, H., & Baycan, S. (2004). Sağlık sektöründe verimlilik ve kalite sistemi: Cumhuriyet Üniversitesi Hastanesi Örneği (Efficiency and quality system in health sector: Cumhuriyet University Hospital sample). *C.U. Journal of Social Sciences*, 28(2), 173-185.
- Booth, M.L., Owen, N., Bauman, A., Clavisi, O., & Leslie, E. (2000). Social cognitive and perceived environment influence associated with physical education in older Australians. *Preventive Medicine*, 31(1), 15-22. http://dx.doi.org/10.1006/pmed.2000.0661
- Clemes, M. D., Brush, G. J., & Collins, M. J. (2011). Analyzing the Professional sport experience: A Hierarchical approach. *Sport Management Review*, 14(4), 370-388. http://dx.doi.org/10.1016/j.smr.2010.12.004
- Cui, R., & Su, L. (2012). Research status on equalization of public sport service of nationwide fitness in Hebei. *Physics Procedia*, 25, 2298-2303. http://dx.doi.org/10.1016/j.phpro.2012.03.387
- Çimen, Z., & Gürbüz, B. (2007). Spor Hizmetlerinde Toplam Kalite Yönetimi (Quality Management in Sports Services). (First ed.). Ankara: Alp Publishing.
- Devebakan, N., & Aksaraylı, M. (2003). Sağlık işletmelerinde algılanan hizmet kalitesinin ölçümünde SERVQUAL skorlarının kullanımı ve özel Altınordu hastanesi uygulaması (Use of SERVQUAL scores in measurement of perceived service quality in healthcare institutions and a practice in private Altınordu hospital). *Dokuz Eylül University Institute of Health Sciences Journal*, 5(1), 38-54.
- Devecioğlu, S., Çoban, B., & Karakaya, Y.E. (2009). Türkiyede spor eğitimi sektörünün görünümü (Look of sports education sector in Turkey). *Türk Eğitim Bilimleri Journal*, 9(3), 627-654.
- Ersöz, S., Pınarbaşı, M., Türker, A. K., & Yüzükırmızı, M. (2009). Hizmet kalitesinin SERVQUAL metodu ile ölçümü ve sonuçların yapısal eşitlik modelleri ile analizi: Öğretmenevi uygulaması (Measurement of service quality with SERVQUAL method and analysis of its results with structural equation models: A practice in teacher's lodge). *Int. J. Eng. Research & Development, 1*(1), 19-27.
- Filiz, Z., Yılmaz, V., & Yağızer, C. (2010). Belediyelerde hizmet kalitesinin SERVQUAL analizi ile ölçümü: Eskişehir belediyelerinde bir uygulama (Measurement of service quality with SERVQUAL method in municipalities: A practice in municipalities of Eskişehir). Anadolu University Journal of Social Sciences, 10(3), 59-76.
- Gencer, R. T., Demir, C., & Aycan, A. (2008). Kayak merkezlerindeki spor turistlerinin hizmet kalitesi algılarını etkileyen değişkenler (Variables affecting the service quality perceptions of sports tourists in skiing centers). *Ege Akademik Bakış*, 8(2), 437-450.
- Hacıcaferoğlu, S., Gündoğdu, C., & Hacıcaferoğlu, B. (2012). Üniversite öğrencilerinin spor tesislerine ve organizasyonlarına karşı düşüncelerinin değerlendirilmesi (İnönü Üniversitesi Örneği) (Evaluation of the opinions of university students towards sports facilities and organizations (İnönü University sample). Spor ve Performans Araştırmaları Journal, 3(1), 42-51.
- Hemedoğlu, E. (2012). Metro hizmetlerinde hizmet kalitesini ölçme: Algılanan hizmet kalitesi ve beklenen hizmet kalitesi üzerine bir karşılaştırma (Measurement of service quality in subway services: A comparison of perceived service quality and expected service quality). *Yönetim Journal*, 23(72), 25-47.
- İmamoğlu, A. F., & Ekenci, G. (2014). Spor Örgütleri İçin İşletme Yönetimi (Business Administration for Sports Organizations). Ankara: Berkan Publishing.
- Koçak, F., Tuncel, F., & Tuncel, S. (2013). Sporda sürdürülebilirliğin boyutlarının belirlenmesi (Determination of the dimensions of sustainability in sports). Ankara University Journal of the Faculty of Sports Sciences, 11(2), 113-129.

- Lee, J. H., Kim, H. D., Ko, Y. J., & Sagas, M. (2011). The influence of service quality on satisfaction and intention: A gender segmentation strategy. *Sport Management Review*, 14(1), 54-63. http://dx.doi.org/10.1016/j.smr.2010.02.002
- Murray, D., & Howat, G. (2002). The relationships among service quality, value, satisfaction and future intentions of costumers at an Australian sport and leisure center. Sport Management Review, 5(1), 25-43. http://dx.doi.org/10.1016/S1441-3523(02)70060-0
- Pherson, M. C. (1981). Socialization into and Through Sport Involvement. In G.R.F. Lüschen, G. H. Sage, L. Sfeir (Eds.), *Handbook of Social Science of Sport*, Champaing: Stipes Publishing, 246-273.
- Rozita, A. L., Nor, Zana, A. A., & Khairulzaman, H. (2014). Impact of sport complex services towards costumer behavior in Trengganu. *Social and Behavioral Science*, 153, 410-418. http://dx.doi.org/10.1016/j.sbspro.2014.10.074
- Şahin, G. G. (2011). Üniversite düzeyinde turizm eğitiminde hizmet kalitesi beklenti ve algısına yönelik Ankara'da bir araştırma (A research directed to service quality expectation and perception in tourism education at university level in Ankara). Journal of Business Research, 4, 49-65.
- Şimşek, K. Y. (2014). Etkinliğin Kalite Algısı Ölçeğinin Türkçeye Uyarlanması: Dünya Salon Atletizm Şampiyonası İstanbul 2012 (Turkish Adaptation of Quality Perception Scale of Event: World Indoor Championship in Athletics Istanbul 2012). SPORMETRE, 12(1), 19-33.
- Torlak, Ö. (1999). Hizmet kalitesini iyileştirmede belediye hizmet kullanıcılarının şikayet sürecinin düzenlenmesi. (Arrangement of complaint process of municipality service users in improving service quality). *1st National Congress on Quality in Public Administration*, Ankara, Turkey: TODAİ Publishing, 357-370.
- Türk, Z. (2009). Denetim firmalarının sunduğu hizmet kalitesi, müşteri tatmini ve sadakati: SERVPERF ölçeği (Service quality, customer satisfaction and loyalty offered by auditing companies: SERVPERF scale). *Ç.U. Journal of Institute of Social Sciences*, 18(1), 399-416.
- Weuve, J., Kong, H. S., Manson, J. E., Breteler, M. M. B., Ware, J. H., & Grodstein, F. (2004). Physical education: Including, walking and cognitive function in older women. *The Journal of American Medical Association*, 292(12), 1454-1461. http://dx.doi.org/10.1001/jama.292.12.1454.
- Yıldız, S. M. (2010). Spor ve Fiziksel Etkinlik Hizmetleri Pazarlaması (Marketing of Sports and Physical Event Services) (Fist ed.). Ankara: Detay Publishing.
- Yılmaz, V., Filiz, Z., & Yaprak, B. (2007). SERVQUAL yöntemi ile yükseköğretimde hizmet kalitesinin ölçülmesi (Measurement of service quality in higher education with SERVQUAL method). Anadolu University Journal of Social Sciences, 7(1), 299-316.
- Yücel, A. S. (2012). Türk spor federasyonlarında altı sigma yönetim modelinin uygulanabilirliği (Applicability of six sigma management model in Turkish sports federations) (Doctoral Dissertation). University of Firat, Elazığ: Turkey.
- Zengin, E., & Erdal, A. (2000). Hizmet sekt ör ünde toplam kalite yönetimi (Total quality management in service sector). *Journal of Qafqaz*, 3(1), 43-56.

#### (cc) BY

This work is licensed under a Creative Commons Attribution 3.0 License.