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An Investigation on the Relationship between Decision Making, Assertiveness Level and Professional Adequacy of Kick Box Referees*

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Abstract

This research, was made to determine and inspect the referees', who took part 2012-2013 season kick box games, level of decision making professional adequacy and assertiveness. The universe of this research consists of the kick box referees who took part in the games that was organized in 2012-2013 season in 9 different cities. The research sample consists of 150 kick box referees (35 women and 115 men) chosen by random sampling method among the 517 active kick box referees. In this study Melbourne Decision Making Questionnaire I-II, Rathus Assertiveness Schedule and Professional Competence Scale were used together as data gathering tools. At the end of the research; significant differences are discovered in kick box referees' decision making, professional adequacy and assertiveness levels according to their refereeing division, marital status, being exposed to violence, level of education and age. Also professional adequacy significantly correlated with assertiveness and decision making.

Keywords: Decision Making, Professional Adequacy, Assertiveness

* This study was adapted from the first author's master thesis.

Introduction

Sport has become a phenomenon that innovates itself day by day with the increase of people's interest towards sport. People's expectation towards sports have increased and they needed more sport branches than the ones that currently available. Because of the needs to different branches of sports, some sport branches that belong to specific regions have emerged. There are unfortunately very few people who have detailed knowledge about kick boxing although there are limitless alternatives regarding to sport branches. This situation makes it more important to present and generalize kick boxing around the world.

At the beginning of 1950s, an elite boxer in Japan who is Osamu Naguchi began his world tour because of his special interest towards boxing branches around the world. In his travel, he was very impressed by muay thai which is a kind of boxing in Thailand and he believed that this branch of boxing should be developed and promoted (George, 2009).

In 1970s, full contact karate which is currently called as kick boxing became popular and this led kick boxing taken into consideration as a modern sport and taken an important place in the international arena as a common sport in the world (Sainko and others,2012). Referee takes an important place regarding to kick boxing as it does almost all kind of sports.

Lexically, a referee is somebody who have been chosen by parties to solve a contradiction or assigned by an authority. On the other hand, in a sportive manner, a referee is somebody who determines points, applies rules and makes them applied, and punishes those who do not apply the rules (Durna, 1997). The most important characteristics of refereeing is that a referee can make decision by behaving equally for both sides. A referee is responsible for making decision in a minimum level. Because, a tiniest mistake may cause tension, unexpected consequences and negative reaction over the audiences. A referee; acts as a bridge between audiences and sportsmen and rival teams, he also evaluates the game regarding to previously determined rules (Orta,2000).

So, referees are responsible to make the most correct decisions. Generally, decision making is a process to choose the way that is considered to lead the person to his/her aim that he/she tries to achieve (Kuzgun, 1992: 161). Decision making is an adaption into a form of an action. No matter how small it is, it is considered as making a commitment which is logical and emotional (Çimen, 1999: 11). According to Bağırkan, decision making is to determine the most suitable option that can be obtain from one or a series of problems that have to be concluded by evaluating them with their all dimensions (Bağırkan, 1983: 4). When it comes to decision making, it mostly can not be possible to evaluate all possible options, characteristics of each option and possible consequences of them simultaneously. For this reason, these processes are made in a particular sequence. The sequence and decisions may emerge deep influences (Newell ve Shanks, 2004).

Haris (1998) has mentioned two definiton about decision making; firstly, decision making is the study of choosing and determining the alternatives based on the values and choices of decision maker. Regarding to choosing of the alternatives that taken into consideration about various incidents, decision making does not emerge just by defining the alternatives, it also emerges with the most suitable aims of us, our desires, life styles and values etc. Secondly, he defines decision making as process to reduce the doubt and uncertainty in a sufficient while making the suitable choice among options.

According to these definitions, decision making is process in which decision maker makes the most correct evaluation that leads him/his to conclusion. In this context, decision making is a

dynamic process and individual plays an important and effective role in this process (Ersever, 1996). Decision making can be considered in a sense as a equilibration process in the individual's inner world. Individual who is about to making a decision, tends to provide not only his needs that belong to his inner world but also his peripheral expectation. In order to provide this, individual has to use his/her personal and peripheral sources effectively and positively (Marco and others, 2003: 19). Personal differences have effects over decision making. Multi-optional decision making processes cause more difficulties regarding to individuals. This situation may cause stress over individual. This complication about decision making also affects individual negatively when he/she makes a decision (Deniz, 2004).

Assertiveness may also affect individuals' decision making ways. Assertiveness (Voltan, 1980: 23) is used in Turkish as self-assertion, behaving effectively and initiativeness. Generally, assertiveness is a way of indirectly and honestly communication. Individuals whose assertiveness levels are high can make good contact with their environment. Besides this, increasing of self reliance of individual and leaving impression over other people are gainings of assertiveness (Korkut, 2004).

Bar-Eli and Raab (2006) indicate that the world of sport is the most suitable area for decision making researches. Since he determined the world of sport as a potential lab in which cognitive adequacy about decision and decision making of individuals are examined (Bar-Eli ve Raab, 2006: 519). Although there is not a standart types of making decision for sport, generally, some characteristics of it can be taken into consideration. The important point of decision making is that it is a natural matter. In addition to his regular duties, the number of potential choice of the player during the game is vast. For instance, if a footballer wants to use his/her decisions, responsibilities and creativeness freely when he/she takes the field, he/she does not apply them according to previously prepared recipe. On the contrary, he/she is the position of making decision regarding to unexpected situations the emerge randomly. (Johnson, 2006: 631–652).

Secondly, most of the decisions that made in a sportive atmosphere is dynamic. In other words, sportive areas have external dynamics that changes through time. Because of this dynamic concept, it needs the ability of knowledge creation of player. The dynamic situation (or situations) that the player encounter during the game is complex and sometimes irrelevant information can be needed or some knowledge that the player should use during the game may be hindered because of various reasons and he/she may use different knowledge (Johnson, 2006 631–652).

Thirdly, decisions in sportive activities are made as overt behaviour and under high time pressure. This characteristic of sport is about dynamic content of decision making. Most behaviours acted by the player are clearly presented during the game (Johnson, 2006).

Thus, a professional referee in other words, a referee who has got professional adequacy tends to make correct decisions. Etymologically adequacy means special knowledge, ability and efficiency that provides to maintenance something. It also means for somebody who has reached the intended level to do something regarding to a specific occupation (TDK, 2005). Adequacy is the level to have necessary knowledge, ability and attitude in order to play a role (Balci, 2005).

According to these explanations, it can be said that assertiveness and decision making are related to professional adequacy. In this study, it has been aimed to examine the assertiveness levels of kick boxing referees as a factor on decision and decision making over

the effects of their professional adequacies. Additionally, decision making regarding to different factors, assertiveness and professional adequacy levels have been examined.

Method

Research Group

Kick boxing referees who participated in the games that was organized in 6 different cities by Turkish Kick Boxing Federation in 2013-2014, have constituted the population of this study.

On the other hand, the sample of this study have been constituted by 150 kick boxing referee who have been chosen with random sampling method (35 female and 115 male) out of 517 active kick boxing referee. Within the research it has been aimed to contact all referees. Out of 311 survey forms (missing and incorrect forms eliminated) 150 participants have been reached. In this research, data from kick boxing referees who have been assigned in the organizations in İstanbul, Çorum, Ankara, Denizli, Adıyaman and Gaziantep have been taken into consideration.

Data Collection Tools

Melbourne Decision Making Questionary(MDMQ I-II):An international study that includes six countries by Mann and others (1998), have been improved to make a comparison among university students about their self-esteem in decision making and decision making styles.It is a questionnaire that includes two sections.This questionnaire have been adapted into Turkish by Deniz (2004), in order to determine Turkish university students' decision making styles and to make a comparison among other countries students (Deniz, 2004).Melbourne Decision Making Questionary has two sections.First section: aims to determine self-esteem in decision making (self-confidence). It has 6 articles and one factor. Second section that aims to determine decision making styles, has 22 articles and four sub factors. These sub questionnaires are vigilant decision making, buck-passing decision making, procrastination decision making and hypervigilance decision making.In both sections there are triple (Correct=2, Partly Correct=1, Not Correct=0) likert type answering options.

Rathus Assertiveness Inventory (RAI):Within the research, in order to determine the assertiveness levels of kick boxing referees who have been chosen as sample group, Turkish adaption developed by Rathus (1977) and Rathus Assertiveness Inventory which has 30 articles executed by Voltan (1980) have been used. In the Rathus Assertiveness Inventory (RAI), as it is determined in the instruction of each article points are between +1 and +6, there is no 0 points. The edge to timidity reaches +30 and on the other hand assertiveness reaches 180. Hence the assertiveness point of a subject varies among 30 and 180points (Voltan, 1980).

The Questionary of Professional Adequacy: The first article pool of Professional self-Adequacy Questionary that consists of 19 articles developed by Schyns and VonCollani (2002) is constituted by 20 articles that was obtained from three different questionnaires by researchers and these articles are evaluated via Likert type data that has 6 items (Schyns and VonCollani, 2002).In the study of the adaption of the questionnaire into Turkish, instead of Likert type data that has 6 items, researchers have used Likert type data that has 5 items (5=strongly agree; 1=strongly disagree).

Statistical Analysis

SPSS 15.0 for Windows was used to analyze the data that was obtained. Regarding to evaluate the demographical data for referees frequency (f) and percent (%) have been calculated and presented as tables.

In order to test the distribution of points that was obtained from questionaries Kolmogoroc-Smirnov and Shapiro-Wilk tests have been applied and it has been understood that both data have shown as normal distribution.

T-test for binary groups, ANOVA test for three or more groups and Pearson Correlation test for relationships have been applied in order to evaluate whether there is a differentiation that depends on referees' demographic varieties regarding to questionaries of decision making, assertiveness and professional adequacy points and their sub dimentions. Multi-directional analysis of variance, MANOVA have been applied in order to evaluate whether there is a relevant diffrence among dependent factors that have more than one and dependent groups that have more than two. Level of significance was determined to be $p < .05$ and $p < .01$.

Results

Table 1. The relationship among Decision making, Professional adequacy and Assertiveness scores of Kickboxing referees.

	1	2	3	4	5	6	7	8
1) Professional Vision								
2) Professional Adequacy	.628**							
3) Professional Confidence	.636**	.649**						
4) Self-esteem in Decision Making	.453**	.577**	.504**					
5) Vigilant Decision Making	.411**	.503**	.369**	.561**				
6) Buck-passing Decision Making	-.251**	-.332**	-.401**	-.440**	-.173*			
7) Procrastination Decision Making	-.300**	-.329**	-.429**	-.397**	-.214**	.689**		
8) Hypervigilance Decision Making	-.357**	-.364**	-.344**	-.450**	-.225**	.600**	.563**	
9) Assertiveness	.280**	.409**	.350**	.457**	.382**	-.520**	-.447**	-.434**

* $p < 0.05$ ** $p < 0.01$

According to the Pearson's correlation analysis, there is a significant correlation among self-esteem in decision making, vigilant decision making, buck-passing decision making, procrastination decision making, hypervigilance decision making, assertiveness, professional confidence, professional adequacy and professional vision.

Table 2. ANOVA analysis according to classification of referees

Variables	Classification	n	Sum of	Sd	Mean	F	p	Significant
Professional Vision	A) Nominated Referees	41	6.092	2	3.046	5.283	.006*	a-c
	B) Region Referees	65	73.797	128	.577			b-c
	C) National Referees	45	79.888	130				
Professional Adequacy	A) Nominated Referees	41	8.092	2	4.046	7.998	.001*	a-c
	B) Region Referees	65	64.755	128	.506			b-c
	C) National Referees	45	72.847	130				
Professional Confidence	A) Nominated Referees	41	3.042	2	1.521	2.820	.063	
	B) Region Referees	65	69.038	128	.539			
	C) National Referees	45	72.080	130				
Self-Esteem In Decision Making	A) Nominated Referees	41	40.503	2	20.251	4.530	.013*	a-c
	B) Region Referees	65	572.245	128	4.471			
	C) National Referees	45	612.748	130				
Vigilant Decision Making	A) Nominated Referees	41	12.369	2	6.185	1.223	.298	
	B) Region Referees	65	647.356	128	5.057			
	C) National Referees	45	659.725	130				
Buck-Passing Decision Making	A) Nominated Referees	41	74.935	2	37.468	6.432	.002*	a-c
	B) Region Referees	65	745.599	128	5.825			
	C) National Referees	45	820.534	130				
Procrastination Decision Making	A) Nominated Referees	41	51.837	2	25.918	7.072	.001*	a-c
	B) Region Referees	65	469.079	128	3.665			
	C) National Referees	45	520.916	130				
Hypervigilance Decision Making	A) Nominated Referees	41	12.078	2	6.039	2.185	.117	
	B) Region Referees	65	353.708	128	2.763			
	C) National Referees	45	365.786	130				
Assertiveness	A) Nominated Referees	41	2771.601	2	1385.8	5.450	.005*	a-c
	B) Region Referees	65	32547.57	128	254,27			b-c
	C) National Referees	45	35319.17	130				

*p<0.05

Analysis according to classification of the referees showed that there is a significant difference in the scores of professional vision ($p=.006$), professional adequacy ($p=.001$), self-esteem in decision making ($p=.0013$), buck-passing decision making ($p=.002$), procrastination decision making ($p=.001$) and assertiveness ($p=.005$). However, there is not a significant difference in the scores of Professional confidence, vigilant decision making and hypervigilance decision making.

Table 3. T-test results according to marital status of referees

	Marital Status	n	Mean	Sd	Df	t	p																																																																																												
Professional vision	Married	94	4.0186	.87105	142	1.893	.061																																																																																												
	Single	50	3.7700	.67733				Professional Adequacy	Married	94	4.1851	.70771	142	3.738	.000*	Single	50	3.6800	.80407	Professional confidence	Married	94	4.0160	.72291	142	1.422	.158	Single	50	3.8300	.76003	Self-esteem in decision making	Married	94	9.7553	1.93266	142	2.354	.021*	Single	50	8.8200	2.43017	Vigilant decision making	Married	94	7.0745	2.38832	142	1.307	.194	Single	50	6.5200	2.44315	Buck-passing decision making	Married	94	3.0000	2.54423	142	-3.028	.003*	Single	50	4.1800	2.03731	Procrastination decision making	Married	94	2.4468	2.14334	142	-1.814	.072	Single	50	3.0200	1.59706	Hypervigilance decision making	Married	94	2.2340	1.70026	142	-1.172	.244	Single	50	2.5600	1.52744	Assertiveness	Married	94	123.1702	15.85596	142	2.071	.081
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* $p<0.05$

The results according to marital status of the referees showed that there is a significant difference in the scores of self-esteem in decision making ($p=.021$) buck-passing decision making ($p=.003$) and professional adequacy ($t=.000$). However, there is not a significant

difference in the scores of professional vision, professional confidence, vigilant decision making, procrastination decision making, hypervigilance decision making and assertiveness.

Table 4. T-test results according to being exposed to violence for referees

	Being Exposed	n	Mean	Sd	Df	t	p																																																																																												
Professional vision	Yes	58	3.9246	.84745	147	.001	.503																																																																																												
	No	91	3.9245	.77859				Professional Adequacy	Yes	58	3.8862	.83192	147	1.324	.411	No	91	4.0659	.76829	Professional confidence	Yes	58	3.7888	.82025	147	1.947	.061	No	91	4.0385	.66345	Self-esteem in decision making	Yes	58	9.2586	2.60607	147	-.398	.003*	No	91	9.4176	1.96676	Vigilant decision making	Yes	58	6.4655	2.51463	147	1.544	.556	No	91	7.0989	2.32405	Buck-passing decision making	Yes	58	3.3793	2.62797	147	-.195	.073	No	91	3.4615	2.32526	Procrastination decision making	Yes	58	2.5862	2.27137	147	-.641	.034	No	91	2.8132	1.82521	Hypervigilance decision making	Yes	58	2.4138	1.64407	147	.343	.589	No	91	2.3187	1.66586	Assertiveness	Yes	58	121.7759	15.34520	147	.469	.957
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*p<0.05

The results according to being exposed to violence showed that the referees who confirmed being exposed to violence had significantly lower score of self-esteem in decision making compared to the others who were not exposed violence. (t=.003* p<.05). The results also showed that there was not a significant difference in professional vision, professional adequacy, professional confidence, vigilant decision making, buck-passing decision making, procrastination decision making, hypervigilance decision making and assertiveness.

Table 5. MANOVA results for professional adequacy according to age and educational status

		Df	Mean	F	p
Level of Education	Professional vision	2	3.824	6.741	.002*
	Professional adequacy	2	.636	1.081	.342
	Professional confidence	2	.555	1.015	.365
Age	Professional vision	2	.660	1.163	.315
	Professional adequacy	2	1.637	2.784	.065
	Professional confidence	2	.448	.819	.443
Level of Education* Age	Professional vision	4	2.387	4.208	.003*
	Professional adequacy	4	.506	.861	.489
	Professional confidence	4	.724	1.325	.264
Error	Professional vision	139	.567		
	Professional adequacy	139	.588		
	Professional confidence	139	.547		
Total	Professional vision	148			
	Professional adequacy	148			
	Professional confidence	148			

*p<0,01

MANOVA results showed that educational level had a significant effect on professional vision ($p < .01$). It was also found that age did not affect professional adequacy however, the interaction between level of education and age significantly affected professional vision scores ($p < .01$). Tukey analysis also showed that the significant difference was due to the difference between high school and university levels. Descriptive statistics showed that the referees aged above 41 and graduated from high school had significantly higher scores in professional vision compared to the others referees.

Discussion and Conclusion

Vigilant decision making have shown a positive correlation with all dimensions of professional adequacy. Additionally, assertiveness points have shown a positive and meaningful correlation with all dimensions of professional adequacy. Buck-passing, procrastination and hypervigilance decision making that can be considered as more negatively have shown a negative correlation with all factors of professional adequacy. These findings show that decision making and assertiveness have correlation with professional adequacy. According to results about the categories of kick boxing referees that are shown in Table 2, there are meaningful differences on the levels of their professional adequacies, self-esteem in decision making, vigilant decision making, procrastination decision making and assertiveness.

There is no meaningfulness regarding to levels of professional confidence, vigilant decision making and buck-passing decision making. According to the analyze that we executed with regards to professional vision levels of kick boxing referees regarding to refereeing categories, it has been found that nominated referees and region referees have low level of professional vision than national referees. Professional vision averages of referees who have low classification have been seen lower when they are compared to those referees who have high classification. Shortly, it can be said that referees who have professional vision deficiency suffer from professional adequacy.

According to the analyze that we executed with regards to professional vision levels of kick boxing referees regarding to refereeing categories, it has been found that professional adequacy levels of nominated and region referees are lower than national referees. In his study which is about professional adequacy levels of referees according to their classification, Dinç (2013) has indicated that referees who have low classification have lower points. When self-esteem in decision making according to classification of kick boxing referees is taken into consideration, it can be seen that nominated referees' self-esteem in decision making levels are lower when they are compared to national referees. Gürçay (2003) have indicated that those who have lower self-esteem hinders themselves to make a systematical and logical decision, on the other hand individuals who have higher self-esteem face less difficulties and encounter less stress.

When buck-passing decision making and procrastination decision making of kick boxing referees are taken into account according to their classification it has been found that nominated referees tend to use buck-passing decision making comparing to national referees. In other words it can be said that referees tend to use buck-passing decision making because of their lack of experience or they can not devote themselves completely to refereeing may lead them to use procrastination decision making. In the study that has been executed by Uzunoğlu (2008) about decision making styles of Turkish football referees have shown that classification differences among referees affect over buck-passing decision making approach. This study shows parallels with our findings. In other study led by Gacar (2011) about academicians have shown that those academicians who have lower academic title have more procrastination decision making levels. When the assertiveness of kick boxing referees regarding to their classifications, it has been found that assertiveness levels of national referees are higher than nominated and region referees. It has been seen that as the level of classification of referees increase, the assertiveness levels of them also increase. In the study led by Gacar (2011) about instructors, it has been seen that there is no meaningful correlation between academic title varieties and assertiveness points, yet it has been concluded that as the academic title improves there is also an increase over assertiveness level. Gacar's (2011) findings study shows parallels with our findings.

According to findings in Table 3, when marital status of kick boxing referees is taken into consideration, it has been seen that there is a meaningful difference among self-esteem in decision making, buck-passing decision making and professional adequacy levels. When we look at the other data, it is seen that there is no meaningfulness among professional vision, professional confidence, vigilant and procrastination decision making and assertiveness levels regarding to gender. It has been seen that single referees have lower self-esteem points in decision making than married ones. In the study that has been executed by Uzunoğlu (2008) about football referees, he indicated that the average points of self-esteem in decision making levels of single referees are lower. In his study that led by Gacar (2011) about physical education teachers, it has been seen that there is a reverse correlation with our study.

When martial status is taken into consideration, the buck-passing decision making attitudes of single referees are higher comparing to married ones. In the study that has been executed by Uzunoğlu (2008) that is entitled as “Investigation Styles of Decision Making of Turkish Football Referees According to Their Classifications and Some Variables” when martial status and average points buck-passing are taken into consideration, it has been found that the average points of married referees are lower than single ones. This study shows parallels with our findings. When martial status varieties are taken into account, it is seen that professional adequacy of single referees are lower than married referees. In the study led by Dinç (2013) about referees and in the study led by Koparan (and others, 2011) about physical education teachers, it has been concluded that martial status is not meaningful regarding to professional adequacy. According to findings about kick boxing referees in Table 4, when exposing to violence of kick boxing referees is taken into consideration, it has been seen that those referees who express that they have been exposed to violence have lower self-esteem points in decision making when they are compared to those who express that they have not been exposed to violence. According to other data that have been obtained, it has been found that gender varieties has no correlation with professional vision, adequacy and confidence, vigilant, buck-passing, procrastination and hypervigilance decision making and assertiveness. In other words, it can be said that kick boxing referees may face decrease about self-esteem in decision making levels because of exposing to violence during the game. We can see that an individual may encounter a decrease or deficiency in his/her self esteem when he/she exposed to violence. According to the study that led by Gürpınar and Güven (2011), it has been indicated that unsportsmanlike conduct towards referees affects them in a negative way and this makes them more sensitive. Thus, they may make wrong decisions because of this situation. On the other hand, according to Tenenbaum and Eli (1993) refereeing is an instant decision making mechanism and they also indicate that referees are going to be successful thanks to self-esteem that can be achieved by experience. Shortly, if the referee gains more experiences his/her self-esteem will be higher. As a result, they will protect themselves from psychological or tactile violence by players, supporters and trainers by making less wrong decisions. In the study led by Nevill (and others, 2000) when referees feel themselves under tense pressure, they may make decisions like send of away team’s players and giving penalty in home team’s favour. In other words, it is considered that referees who exposed to all kinds of violence have difficulties in decision making.

According to vigilant decision making variety, it has been found that male referees’ vigilant decision making levels are higher than female referees. In order to increase the vigilant decision making levels of female referees who are assigned in federation, refereeing development seminars should be organized.

If we take into consideration of exposing to violence of kick boxing referees, it has been seen that those referees who express that they have been exposed to violence have lower self-esteem points in decision making when they are compared to those who express that they have not been exposed to violence. As being exposed to violence affects referees negatively previously, during and after the game, federation should attach great importance to increase the security level to decrease violence level. It should be indicated to players and trainer with seminars that the violence affects decision making in a negative way. Federation should take criminal action against those who commit violence. And this action should be applied according to level of violence. It should be taken into account that the violence may be applied by other people. In order to prevent violence, audiences should be informed and the number of security staff should be increased.

When the assertiveness of kick boxing referees regarding to their classifications, it has been found that assertiveness levels of national referees are higher than nominated and region referees. It has been seen that nominated and region referees use timid decisions when they are compared to national referees. In order to increase the assertiveness and self-esteem in decision making levels of nominated and region referees, they should become more experienced. In the games federation should assign nominated and region referees. So, their experience and assertiveness levels will be increased. If we look at the professional adequacy of kick boxing referees regarding to their classification, it can be seen that referees who have lower classification have also lower professional vision. It has been determined that the lower professional vision levels of nominated and region referees can be compensate by education and experience. In order to increase the professional vision of nominated and region referees, federation should organize education seminar. Federation should take into consideration the classification and place of duty since these factor may positively affect professional vision of nominated and region referees.

Conflict of Interest

The authors have not declared any conflicts of interest.

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