

The Elements Effect Job Satisfaction of Medicine Representatives and a Sample from Bursa

Orhan KOÇAK*

Serkan ETİ**

Caner ADIGUZEL***

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ABSTRACT

The jobs of medicine representatives who work in health sector are much more different than other positions such as sales and marketing in the same sector. The presentation of the goods and services manufactured by companies for health care worker is increasing the importance of the position of medicine representatives according to the acts and ethic rules. Also, there is a positive perception on the position of medicine representatives. In this study, it is wondered that although there is a positive perception for medicine representatives, whether the representatives have high level job satisfaction or not. Besides, it is studied that which factors can affect the level of their job satisfaction.

The study was done with 135 medicine representatives by using quantitative method. The data collected from medicine representatives was analyzed with SPSS statistical program. In the first part of the study, the literature of job satisfaction in terms of different dimensions was reviewed. In the second part, the information of the job of medicine representatives was given and then the relation between the job of medicine representatives and their job satisfaction was written. In the third part, the data was collected from medicine representatives was analyzed by using statistical methods.

1. Introduction

Medicine representatives in the health sector have much more importance with their differences than other employees work in other departments such as marketing and accounting, production and sales. Goods and services produced in the health sector are presented, first of all, to medicine representatives then other related departments, because representatives should very well know the specifications of goods and services and present them health practitioners according to the countries' legal and ethic rules. In this sense, job satisfaction and its effects are becoming more important for medicine representatives in working life. That's why the what triggers to the job satisfaction should be investigated for medicine representatives. In this context, a survey was done, the data collected and analyzed in

* Assoc. Prof., Istanbul University, Faculty of Health Sciences, Department of Social Work

** Lecturer, Medipol University

*** Medical Representative in the Health Sector

order to understand cause and effect relations between job satisfaction and working conditions in the study.

2. Literature Review of Job Satisfaction

2.1 The Definition of Job Satisfaction

Job satisfaction as a degree of content of a worker from his or her job is close to positive emotional reaction to a certain job or position. In other words, job satisfaction is an important element of workers for their continuity, loyalty, state of belonging and productivity in their works and positive emotional reaction to their positions or jobs (Tümgan, 2007: 34).

Following definitions are related to job definition;

- Job satisfaction is an important factor which motivates people for working (Erin, 2001: 40-51). Job satisfaction is a measurement of perceptions and emotions of workers (Şimşek, 1995: 92).

- Job satisfaction includes the negative or positive feelings of intrinsic, extrinsic and overview approach of a worker's (Odom vd., 1990: 157). It is also an emotional reaction to the comparison of deserved and expected results (Oshagbemi, 1997: 108).

- Job satisfaction is the result level of expected wills or the level of enjoyment of workers from their job (Eser, 1998: 26). According to the another view; job satisfaction is an evaluation of job conditions (the work itself, physical medium, attitude of management) and the results of the work such as wage and job security by a worker (Çekmecelioğlu, 2006: 153-168).

2.2. The Importance of Job Satisfaction

There are many factors from capital, raw material, knowledge and labor which comes from human in organizations. There is no doubt that all of these factors are very important in the process of any organization from getting raw materials to production and end point. However, the labor is a product of an employee is much more important than other factors and the most valuable asset of an organization (Sabuncuoğlu, Tokol, 1992: 67). Also it depends on the efforts of workers to what extent an organization will be productive and efficient.

Job satisfaction is an important factor not only for a worker but also for an organization. In today's modern world, the work has the meaning and importance for the life of an individual. Majority of a day is used in a workplace, therefore it is expected to meet the requirements of the life from the working life. This expectancy affects in a negative manner of a worker in terms of physical and psychological health and general life satisfaction. Also, job dissatisfaction can give rise to the results which will affect negatively such as job absenteeism, negligence of the work, negativity, slowdown, and leaving from work (Bardakçı ve Serinkan, 2009:115).

The competitiveness and stability of organizations is getting harder in a day in which competition is increasing. In order to differentiate from other organizations, organizations should give the importance to their human resources and behave in a positive manner and manage their workers' expectations and attitudes such as job satisfaction, job stress, loyalty and performance to be able to compete in today's world (Gül vd., 2008: 7). Today, the organizations which give the importance by educating to their workforce can easily get competitive advantages. Because the organizations get their advantages from their workforce's

loyalty and intelligence, and thus create their own work culture will be able to compete with the rivals. Those organizations who have their own distinctive workforce, culture and system cannot easily be imitated by the rivals.

Globalization and intense competition have been threatening organizations and compelling them rapidly change and modernize to be able to sustain their success and lives. Realization of this change is depend on high technology, innovation and creativity, and thus qualified goods and services produced. The source of this technology and innovation is workforce who have skills in production and usage of the current knowledge (Özdamar, 1998).

2.3. The Factors Affecting Job Satisfaction

There are many factors which affect job satisfaction of workers. The size and structure of organization, wages, physical conditions in workplace, working hours, social benefits, qualification level, experience and ages of workers, career possibilities and worker motivation are some of the factors affect workers' job satisfaction level. An improvement in job content may stimulate growth needs and the individual would be motivated to satisfy these needs. On the other hand, an improvement in the physical environment or job context factors would only remove dissatisfaction but not increase motivation (Onimole, 2015, 203).

The size and structure of organization usually have the effect on behavioral factors. However it cannot be said this effect is positive. Job satisfaction will be decreased if the organization is physically big. In these big organizations labor absenteeism and turnover are higher and job satisfaction is lower than small organizations. It can be said that job satisfaction is lower in big organizations than small one as a result of the expectations cannot easily be met of workers. Also, another reason is that there cannot be improved intimacy and friendship between workers (Solmuş, 2004: 189).

Wage and fringe benefits are gained as a result of working is affecting job satisfaction level. The effect of wage on job satisfaction can be determined looking difference between the wage paid and the wage expected. If the paid wages and expected wages are equal, the level of job satisfaction will be high. The main reason on the high importance of the wage is that money is unique tool to meet the requirements of human life and wage can be a symbol of success and recognition. Workers want fair, uncomplicated wages and promotion policies with their expectations, and thus increase their job satisfaction (Lawler, 1969: 109).

Job satisfaction increase with work quality as well as the result of the harmony of wage and non-wage elements got from work. To increase the level of job satisfaction in an organization can be provided with the development of award systems (Erkmen ve Şencan, 1994: 145). Awards will provide an settlement of conscious of organizational interests which are the same with workers' self-interest, and thus will strengthen the needs of their trust and respect (Kaynak, 1990: 141). To provide a proper atmosphere in terms of job security and health for workers is going to increase labor productivity. The decent physical conditions of workplace will give rise to increase of the job satisfaction. Variations such as becoming dangerous work for workers and excessive cold and hot climate at workplace are affecting to job satisfaction. Studies show that workers give to the importance the safe and comfortable workplaces (Erdoğan, 1996: 245).

Communication plays an important role after humans started living together. It plays interactive role among people by sending symbolic messages mutually, and thus creates a shared process. People can get opportunities for the shared values by communicating each other. In order to reach organizational objectives by increasing productivity, it is a compulsory mean to communicate effectively among individuals. As the transfer, exchange and capture of the knowledge and information has very important role in terms of managerial approach, there is a role of the effective communication process in getting positive attitudes of workers as well (Orpen, 1997: 519). The quality of relations among managers and workers brings about positive senses towards organization and to each others (Poon, 2006: 518). Studies show that having used positive communication language in an organization, job satisfaction, performance and the success of both organization and all workers increase (Madlok ve Lightsey, 2010: 47).

Working hours and shift working are affecting both workers' health and morale. New regulations such as resting hours, shift working and flexible working hours are increasing job satisfaction in working life. In this way, physical and psychological workloads as a result of new working conditions will be reduced (Doğan ve Türk, 1997: 110). Competency is another factor which affects job satisfaction of workers in a workplace. In this sense, individual differences affect the level of job satisfaction, because low level skilled workers' satisfaction is lower than high leveled workers'. Low competence will give rise to lower performance level, and thus workers will have more stress and low job satisfaction.

Education and training are one of the most important factors which affecting job satisfaction. For instance, some jobs require university degree from workers who are not satisfied from their jobs as much as the workers who have middle and high school degrees. This situation can be explained with that workers who have university degrees have high wage expectancy, and thus not to be met. On the other hand, it is found in some studies that those workers who have university degrees are happier than those who have middle or high school degrees in terms of job satisfaction. This situation can be based on that high educated and skilled workers can easily reach organizational awards and get high wages (Öztürk, 2001: 334).

Job promotion or career opportunities provide personal development and social status for workers. In organizations in which decisions are given fairly and honest, job satisfaction level of workers will increase. It was found that the workers who have managerial positions have high job satisfaction level than those who have not any managerial positions or have low positions (Hickson ve Oshagbemi, 1999). Status, which consist of values, has been attributed to the individual by others. Whatever the status or position is to be accepted as qualified or to appreciate a work done by a worker will create job satisfaction almost for every worker (Eren, 2006: 40-51).

Motivation has always been related to performance. The worker who has not been motivated cannot be expected high performance from. Motivation is required in order to orient the workers with regard to organizational aims by managers (Birdal ve Nilgün, 1992: 67). The workers the more they are satisfied from their jobs and workplaces, the more productive they can be. Therefore, managers should try to meet the needs of the workers not only economic and social but also psychological needs. At this point, managers can easily manage their organizations by using motivational process rationally. Successful managers can use different

motivational methods by implementing them separately or together. The manager, who knows very well himself and workers, can benefit from different motivational methods for different workers and situations. For instance, while good relations is adequate to more productive work of a worker, discipline rules can be required for some (Yüksel, 1998: 45).

3. The Factors Affecting Job Satisfaction of Medicine Representatives

Medicine representatives who work in the sector are affected in terms of job satisfaction by the sizes and structures of organizations. The workers in the foreign-owned capital medicine companies have much more opportunities such as institutional approach, wage levels, fringe benefits and in-house trainings than domestic companies. Medicine representatives are usually satisfied from their jobs thanks to higher wages, extra bonuses, fringe benefits and social opportunities which are higher than average of Turkey.

Working conditions of medicine representatives are much more flexible in terms of working hours and workplace than other workers. Medicine representatives work usually outside of company according to their work schedule which determined monthly. Medicine representatives are subject some problems such as heavy traffic since they are working out of company. For instance, they have health problems because of traffic accidents and car driving. Companies have recently been providing some opportunities and supports such as high safe cars, changing the car tires every summer and winter, periodic maintenance of cars and representatives' training for professional car driving. These practices by has been implemented by medicine companies can affect on the job satisfaction of representatives. The flexible working conditions are increasing happiness and satisfaction of representatives and their families by giving them opportunities to be able to manage on their private lives.

The medicine representatives who are working at health care sector have high level communication opportunities which is an integral part of the job. The representatives can be able to use these opportunities not only for their business but also for their family and private aims. Steady developing Turkey's medicine sector is growing together with its skilled workforce and high level educated workers. Having examined that recruiting advertisements of medicine companies, it is seen that workers, who are searched, should have high education, know foreign language, think career on the medicine representative. The medicine companies think that all of these highly educated workers will represent not only companies but also explain the technical details of the medicines which are sold by companies. That is why, medicine companies have been giving the more importance to these representatives than other workers. The importance which are given to these representatives is positively affecting their the sense of belonging, loyalty towards their companies and the level of job satisfaction.

There are differences between foreign-owned and domestic companies in terms of labor turnover rates. The lower labor turnover rates of foreign-owned companies is positively affecting their motivations and loyalties towards their companies of medicine representatives. The excessive competition of domestic companies with foreign-owned companies is decreasing their shares and profits, and thus increasing their labor turnover rates and decreasing the level of job satisfaction of workers.

4. Methodology

This study was made on medicine representatives working in Bursa. A survey that is in 26-items along with demographic information questions was applied to the employees. Demographic information was obtained by questions such as age, gender, marital status, level of education, working status, years of job, job experience, average daily working time, whether made traffic accidents and the annual average kilometer with a vehicle. The main reason for choosing a survey is that it is suitable in terms of both time and cost rather than other data collection techniques. In addition, survey technique was utilized because of the convenience in quantitative analysis of the data obtained by questionnaire method. The prepared survey was applied with easy sampling method. It is preferred, because easy sampling method allows easy and quick access to the sample (Bülbül & Demirer, 2008).

Özdamar (2004)'s formula has been used for the determination of sampling adequacy. The formula is

$$n = \frac{t_{1-\alpha}^2 (pq)^2}{S^2}$$

According to this formula, when calculated with a deviation of $\pm 5\%$ at 95% confidence level, $n=134,1$. As the study was applied to 135 units, it can be said that the sample size is sufficient.

With collected survey data, a study is on the job satisfaction of medicine representatives working in Bursa. With collected survey data, a study is on the job satisfaction of medical representatives working in Bursa. As demographic information age of participants is given in Table 1.

Table 1: Participants' Age Table

	Frequency	Percent	Cumulative
22-29	15	11,1	11,1
30-34	59	43,7	54,8
40-44	47	34,8	89,6
50-54	12	8,9	98,5
55 and over	2	1,5	100,0
Total	135	100,0	

The majority of participants were found to be between 30-34 years of age and generally the average of participants was 37 (36,88) years. 84,4% of participants were male while 15,6% were female. Of the 135 participants, 34 were single while 101 were married. 6 high school graduates, 11 vocational college graduates, 100 bachelor graduates, 17 masters graduates and 1 doctorate graduates are the participants. 39,3% of the employees work in the domestic firm and 60,7% work in foreign firms.

In the analysis of 26-items to measure the job satisfaction of employees, it was used in factor analysis. Five-likert scale was used for the questions. Cronbach's Alpha is 0,725. It can be said that the survey is reliable. The reason is that when this value is greater than 0,60, it is moderately trustworthy. The results of the factor analysis were in Table 2.

Table 2: Factor Analysis

Factors	Loading	AVE	C.R.
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Factor 1: PROFESSIONAL LOYALTY (PL)			
PL_1	0,854	0,667	0,89
PL_2	0,829		
PL_3	0,792		
PL_4	0,792		
Factor 2: PROFESSIONAL DEVELOPMENT (PD)			
PD_1	0,848	0,62	0,83
PD_2	0,76		
PD_3	0,749		
Factor 3: SATISFACTION FROM WORKING CONDITIONS (WC)			
WC_1	0,82	0,604	0,75
WC_2	0,731		
Factor 4: COMPETITIVE RATIO (CR)			
CR_1	0,781	0,574	0,73
CR_2	0,733		

A factor analysis of responses using Principal Component Analysis factor extraction and a Varimax with Kaiser Normalization rotation method revealed four distinct factors. For the reliability and validity of these four dimensions, AVE and Composite Reliability (C.R.) values were examined. The AVE value should be bigger than 0,50, so the factor loads should be bigger than 0,708. Looking at the factor loading table, all factor loads are greater than 0,708 and AVE values are greater than 0,50. Composite Reliability values also over 0,60 (Hair, Hult, Ringle, & Sarstedt, 2014). These show that the dimensions are reliable and valid.

For medium-size samples ($50 < n < 300$), when kurtosis and skewness coefficients of items are less than 3,29, they are suitable for normal distribution at 95% confidence interval (Kim, 2013 & Mardia, 1974). when looking the Table 3, it is seen that the kurtosis and skewness coefficients are smaller than 3,29. Hence, items are suitable for normal distribution.

Table 3: Skewness and Kurtosis Coefficients of Items

	Skewness	Kurtosis
PL_1	-0,12	-0,75
PL_2	-0,41	-0,56
PL_3	-0,15	-0,33
PL_4	-0,15	-0,57
PD_1	-1,24	1,26
PD_2	-1,19	0,96
PD_3	-1,49	1,72
WC_1	-0,37	-0,63
WC_2	-0,28	-0,84
CR_1	0,09	-1,32
CR_2	0,39	-0,44

KMO value of factor analysis is 0,766 and the explained variance is 68,488%. This shows that the factor analysis is significant. KMO value should be bigger than 0,50. If it is greater than 0,70, that is perfect (Kaiser, 1974). Measures of dimensions were constructed as the average response a participant provided to their items. The correlation of the four dimensions established by factor analysis is given in Table 4 and the diagonal values of the table are the AVE values of each dimensions.

Table 4: Correlations Matrix and AVE

	PROFESSIONAL LOYALTY	PROFESSIONAL DEVELOPMENT	SATISFACTION FROM WORKING CONDITIONS	COMPETITIVE RATIO
PROFESSIONAL LOYALTY	0,667			
PROFESSIONAL DEVELOPMENT	0,409	0,620		
SATISFACTION FROM WORKING CONDITIONS	0,270	0,235	0,604	
COMPETITIVE RATIO	-0,011	-0,032	-0,031	0,574

When we look at the correlation matrix, it is seen that there is discriminant validity between dimensions. Since the AVE values are higher than the correlations values with each other dimensions, the dimensions are discriminant (Hair, Hult, Ringle, & Sarstedt, 2014). Moreover, there was no significant relationship between competitive ratio and the other dimensions ($p\text{-value} < 0,05$). However, there was a significant relationship between the other dimensions except for competitive ratio.

It can be said that the relations between the three dimensions are significant by looking at the correlation matrix. Looking at these associations, since the correlation coefficient between PL and PD is positive, it can be said that these two dimensions are the same direction. That is, if PD increases, PL also increases. Similarly, if WC for an employee increases, both PL and PD for this employee increases too.

Regression analysis can be used to examine the interaction between dimensions. With linear regression analysis, PL has been analyzed whether it is affected by the other two dimensions. R^2 of regression analysis in which dependent variable is PL and independent variables are PD and WC is 0,446. This means that 44,6% of differ on PL can be explained by PD and WC. ANOVA table of Regression Analysis is in Table 5.

Table 5: ANOVA Table

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24,094	2	12,047	16,410	0,000 ^b
Residual	96,904	132	00,734		
Total	120,998	134			

Once the ANOVA table is examined, it can be said that the model is significant why significant value under the heading "Sig." in Table 5 is less than 0,05.

Looking to the result of the regression analysis, it is possible to interpret PL is affected by the other two dimensions. It is significant that the independent variables are in the regression model because of significance values of their coefficients ($0,028 < 0,05$; $0,000 < 0,05$; $0,023 < 0,05$) according to Table 6.

Table 6: Coefficients of Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0,896	0,402		2,228	0,028
PD	0,403	0,088	0,366	4,564	0,000
WC	0,190	0,083	0,184	2,294	0,023

All the coefficients in the model are significant. When the coefficients of these independent variables are examined, it can be interpreted that PD more affected than WC on PL ($0,403 > 0,190$). Furthermore, these two cases that differ by one unit on PD but are the same on WC are estimated to differ 0,403 units on PL. Similarly, these two cases that differ by one unit on WC but are the same on PD are estimated to differ 0,190 units on PL. 0,366 is the estimated difference in standard deviations of PL between two cases that differ by one standard deviation on PD but are equal on WC in the model. Similarly, 0,184 is the estimated difference in standard deviations of WC between two cases that differ by one standard deviation on PD but are equal on PL in the model.

Table 7: Collinear Analysis

Collinear Analysis	
	VIF
PD	1,058
WC	1,058

One of the things to look at regression analysis is a concept of collinearity between independent variables in the model. For this, if the VIF value is greater than 5, the problem of collinearity will be mentioned (Hair, Hult, Ringle, & Sarstedt, 2014). In Table 7, it is seen that the VIF values of the independent variables are smaller than 5. In this case, there is no collinearity problem in this model.

After regression analysis, we analyzed to differentiate these dimensions, which are generated and validated, on results of demographic information. The One-Way ANOVA Table is given in Table 8, 9 and 10, respectively level of education, working status and intensive use of a vehicle. According to Table 8, it is seen that there is a difference between levels of education of employees on WC ($\text{Sig.} < 0,05$).

Table 8: ANOVA on Level of Education

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
PL	Between Groups	5,479	4	1,370	1,542	0,194
	Within Groups	115,519	130	,889		
	Total	120,998	134			
PD	Between Groups	1,776	4	,444	0,590	0,670
	Within Groups	97,821	130	,752		
	Total	99,597	134			
WC	Between Groups	8,795	4	2,199	2,733	0,032
	Within Groups	104,605	130	,805		
	Total	113,400	134			
CR	Between Groups	3,706	4	0,926	0,994	0,414
	Within Groups	121,227	130	0,933		
	Total	124,933	134			
Level of Education						

According to working status of employees as domestic or foreign firms, there is a significant difference between working status on WC and PD. This status is shown in Table 9.

Table 9: ANOVA on Working Status

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PL	Between Groups	0,307	1	0,307	0,339	0,561
	Within Groups	120,691	133	0,907		
	Total	120,998	134			
PD	Between Groups	2,866	1	2,866	3,940	0,049
	Within Groups	96,731	133	0,727		
	Total	99,597	134			
WC	Between Groups	4,204	1	4,204	5,120	0,025
	Within Groups	109,196	133	0,821		
	Total	113,400	134			
CR	Between Groups	0,000	1	0,000	0,000	0,998
	Within Groups	124,933	133	0,939		
	Total	124,933	134			
Working Status						

In addition, since we take into account that medicine representatives are usually at work with their vehicle, we looked at whether their health problems due to use vehicle differ in these dimensions. According to ANOVA analysis, significant differences are observed between intensive use of a vehicle on PL and PD. This is shown in Table 10.

Table 10: ANOVA on Intensive Use of a Vehicle

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PL	Between Groups	6,859	1	6,859	7,992	0,005
	Within Groups	114,139	133	0,858		
	Total	120,998	134			
PD	Between Groups	4,628	1	4,628	6,481	0,012
	Within Groups	94,969	133	0,714		
	Total	99,597	134			
WC	Between Groups	2,286	1	2,286	2,736	0,100
	Within Groups	111,114	133	0,835		
	Total	113,400	134			
CR	Between Groups	0,022	1	0,022	0,024	0,878
	Within Groups	124,911	133	0,939		
	Total	124,933	134			
Intensive Use of a Vehicle						

Results

This study was done because the current literature doesn't have enough knowledge on the job satisfaction of medicine representatives. In addition to literature, the qualitative correlation between variables such as working conditions, development and loyalty was done. This study was made on medicine representatives working in Bursa. A survey that is in 26-items along with demographic information questions was applied to the employees. The survey was applied to 135 participants. For the analysis of the questions, factor analysis is used first. Factor analysis resulted in 4 dimensions from 26-items. Factor analysis is used to obtain k variables from p variables ($k < p$) (Costello & Osborne, 2005). The differences of demographic obtained by these dimensions are examined with ANOVA. ANOVA analysis compares the averages of the groups. The result of this analysis shown us whether there is any difference between the groups (Armutlulu, 2008).

According to ANOVA tables, it is seen that there are differences between levels of education of employees on WC, between working status on WC and PD, and between intensive use of a vehicle on PL and PD. As levels of education change, satisfaction from working conditions of the employees also varies. Similarly, among domestic and foreign firms

employees, satisfaction from working conditions and professional development of the employees show different.

Regression analysis can be used to examine the interaction between dimensions. With linear regression analysis, PL has been analyzed whether it is affected by the other two dimensions. When we examine the relationship between variables, first of methods coming to mind is regression. The relation that causal relationship or linear function between dependent and one or more independent variables examine with regression. Mathematical representation of the linear relationship is,

$$\mu_y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n + \varepsilon$$

Whereas x_n are n units independent variables. β_0 is the constant of the equation. β_i ($i = 1, 2, \dots, n$) parameters are coefficients of the independent variables. ε is the error term (Armutlulu, 2008).

PL is affected by the other two dimensions. All coefficients of the regression are positive. Thus, positive change (increase) in satisfaction from working conditions and/or professional development of the employees will also positively affect their professional loyalty. PD more affected than WC on PL. The professional development of employees is more important. Therefore, companies should pay more attention to the professional development of their own employees. Return on the loyalty of employees of investments to be made in this area will be more positive than improvement in their working conditions.

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