

An investigation on factors influencing job satisfaction: A case study of electricity distribution firm

Zahra Boroumand^a and Mahdi Baghbaan Sa'ad Abaadi^{b*}

^aMember of Management Department, Central Branch of Islamic Azad University, Tehran, Iran

^bM.A. in Change Management, Central Branch of Islamic Azad University, Tehran, Iran

CHRONICLE

Article history:

Received May 12, 2013
Received in revised format
25 June 2013
Accepted 27 June 2013
Available online
June 29 2013

Keywords:

Job satisfaction
Electricity distribution firm
Genetic algorithm

ABSTRACT

Job satisfaction plays an essential role on the success of any organizations. In this paper, we present an empirical study to measure the effects of five factors including work conditions, pay, promotion, supervisor and co-worker on job satisfaction. The proposed study is performed among 130 employees who work for one of Iranian transmission electricity in Iran. The study designs a questionnaire in Likert scale and distributes it among selected employees and, at the same time, measured overall job satisfaction from other method. The results of testing different hypotheses indicate that all employees are satisfied from their job (t -student=3.243, P -value=0.01). The study also presents a method to find desirable weights for each component of job satisfaction.

© 2013 Growing Science Ltd. All rights reserved.

1. Introduction

Job satisfaction plays an essential role on the success of any organizations (Churchill Jr, 1974). According to Allen and Meyer (1990), organizational commitment has been conceptualized and measured in different methods Allen and Meyer (1990) performed an investigation to test various aspects of a three-component model of commitment, which integrates these different conceptualizations. In their survey, the continuance component was associated with commitment based on the expenses that employees associate with leaving the organization. Bergmann et al. (2000) examined the effects of satisfaction with human resource practices and employee empowerment on organizational, professional, and professional association commitment. Their findings supported the distinctiveness of each domain. Satisfaction with human resource practices and employee empowerment demonstrated a strong relationship with organizational commitment.

*Corresponding author. Tel: +989356574060

E-mail addresses: mehdibaghbaan@yahoo.com (M. Baghbaan Sa'ad Abaadi)

Employee empowerment was more strongly associated with professional association commitment than satisfaction with human resource practices.

Bhuan and Menguc (2002) presented an extension and evaluation of job characteristics, organizational commitment and job satisfaction in an expatriate, guest worker, sales setting. Boles et al. (2007) investigated the relationship of facets of salesperson job satisfaction with affective organizational commitment. Weiss (2002) argued that standard treatments of job satisfaction had inappropriately defined satisfaction as affect and in so doing have obscured the differences among three separate, if related, constructs. He demonstrated that clearly separating these constructs was consistent with current, basic research and theory on attitudes as well as with current research and theory on “subjective well-being” (SWB). He argued that the separation of the constructs could produce better criterion predictions than job satisfaction had by itself, suggested new areas of research that could not be envisioned when satisfaction was treated as equivalent constructs, and required the development of new measurement systems.

Cook and Wall (1980) introduced a novel work and explained that New work attitude measured of trust, organizational commitment and personal need non-fulfillment. Cramer (1996) presented a two-wave panel study to measure job satisfaction and organizational continuance commitment. Gunlu et al. (2010) considered job satisfaction and organizational commitment of hotel managers in Turkey. They reported that extrinsic, intrinsic, and general job satisfaction had a significant impact on normative commitment and affective commitment. Besides, the findings recommended that the dimensions of job satisfaction did not have a significant impact on continuance commitment among the managers of large-scale hotels. In terms of personal characteristics, age, income level, and education had a significant relationship with extrinsic job satisfaction whereas income level indirectly influenced commitment.

Kwantes (2009) compared and contrasted the roles of culture and job satisfaction as antecedents to organizational commitment in both a Western context (the US) and in India. Job satisfaction was associated with affective commitment in both the Indian and American samples. Moderate support was found for the hypothesized effect of collectivism on normative commitment in both samples, while the hypothesized antecedents to continuance commitment were not found in any sample.

Namasivayam and Zhao (2007) investigated the relationships among work–family conflict (WFC), organizational commitment (OC) and job satisfaction (JS) in a hotel setting. Hierarchical linear regression analyses showed that one of two sub dimensions of WFC, namely, family related roles interfering with work related roles (FIW) was negatively related to JS. Both direct and moderating relationships of three sub dimensions of OC were studied and it was detected that the affective component of OC had stronger direct impacts on JS than normative OC; continuance commitment had no impact. The study also disclosed that employees’ affective commitment moderates the effected of FIW on JS.

2. The proposed study

The proposed study of this paper attempts to find out important factors influencing job satisfaction in one of Iranian electricity distribution firms. The population of this survey includes all people who work for this firm. The study uses the following to calculate the minimum sample size,

$$n = \frac{N \times z_{\alpha/2}^2 \times p \times q}{\varepsilon^2 \times (N - 1) + z_{\alpha/2}^2 \times p \times q}, \quad (1)$$

where N is the population size, $p = 1 - q$ represents the yes/no categories, $z_{\alpha/2}$ is CDF of normal distribution and finally ε is the error term. Since we have $p = 0.5$, $z_{\alpha/2} = 1.96$ and $N = 190$, the number

of sample size is calculated as $n=129$. The proposed study of this paper designed a questionnaire in Likert scale, distributed 134 questionnaires among them and eventually collected 130 properly filled ones. The proposed study considers three hypotheses in this survey. The first one considers whether the level of job satisfaction in high risk occupations is within an acceptable level or not. The second hypothesis of the survey considers there is a meaningful difference between observed and expected job satisfaction. Finally, the last hypothesis investigates whether each job satisfaction influencing factors including work conditions, pay, promotion, supervisor and co-worker has the same effect on job satisfaction or not. The study uses t-student test to test the following hypothesis,

$$\begin{cases} H_0: \mu \leq 3 \\ H_1: \mu > 3 \end{cases}$$

Next, we present details of our findings on testing three hypotheses of the survey.

3. The results

In this section, we present details of our findings on testing three hypotheses of the survey.

3.1. The first hypothesis: the level of job satisfaction on high-risk occupations

The first hypothesis of this survey investigates whether the level of job satisfaction on high-risk occupations is within an acceptable limit or not. The questionnaire measures job satisfaction in terms of five different job components including work conditions, pay, promotion, supervisor and co-worker. Table 1 demonstrates the results of some basic statistics on responses to questions associated with the first hypothesis.

Table 1

The results of some basic statistics on the level of job satisfaction for high-risk jobs

Variable	Number of observations	Mean	Standard deviation	Mean standard error
Job satisfaction	130	3.3231	1.1358	0.09969

As we can observe from the results of Table 1, the mean of responses is about 3.3231, which is above the average in Likert 1-5 scale. In addition, the mean standard error is relatively at low level. Table 2 demonstrates the results of testing the first hypothesis using t-student test.

Table 2

The results of t-student test on the level of job satisfaction for high-risk jobs

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean difference	%95 Confidence level	
					lower	Upper
Job satisfaction	3.243	129	0.002	0.32308	0.1260	0.5260

Based on the results of Table 2, we can reject the null hypothesis when the level of significance is one percent and conclude that customer satisfaction on high-risk occupation is within an acceptable level in terms of five different job satisfaction components including work conditions, pay, promotion, supervisor and co-worker.

We have also considered the level of job satisfaction among the same 130 employees without considering five components of the survey. Table 3 demonstrates the results of our survey on some basic statistics as follows,

Table 3

The results of observed statistics on the level of job satisfaction for high-risk jobs

Variable	Number of observations	Mean	Standard deviation	Mean standard error
Job satisfaction	130	2.9538	1.30510	0.11446

Similarly, we perform the t-student test on observed statistics without considering five detail job satisfaction components and the results are summarized on Table 4 as follows,

Table 4

The results of t-student test on the observed level of job satisfaction for high-risk jobs

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean difference	%95 Confidence level	
					lower	Upper
Job satisfaction	0.403	129	0.687	-0.04615	-0.2726	0.183

The results of Table 4 do not confirm that employees are satisfied with their working condition when we disregard the components of job work conditions since t-student is not statistically significant.

3.2. Testing the second hypothesis: observed versus expected job satisfaction

The second hypothesis of this survey investigates whether there is any difference between what we expected them from job satisfaction on the questionnaire in terms of what they responded and what we expected. We simply added the numbers we received on all five components and Fig. 1 demonstrates the results of the difference.

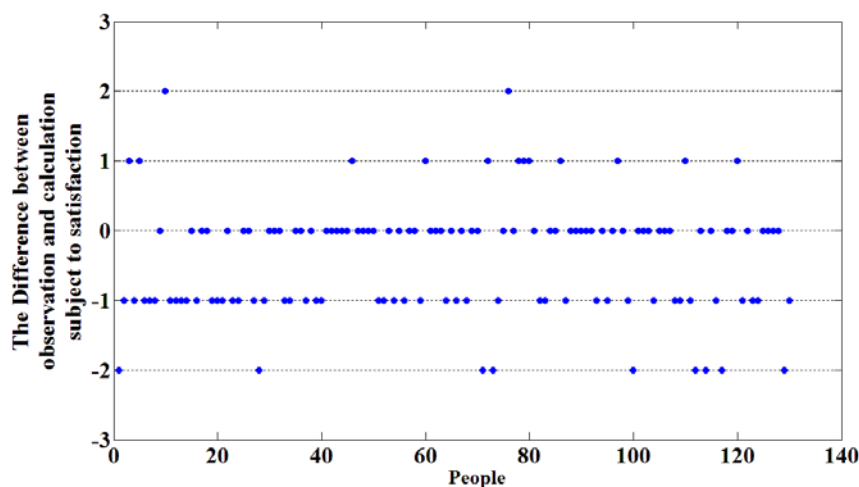


Fig. 1. The difference between observation and calculated job satisfaction

The result of Fig. 1 shows some differences between the results of observed and expected, which could be because we have used two different sources to gather the data.

3.3. The third hypothesis: The effect of different job components

The third hypothesis of this survey considers whether there is any difference between the effects of all five components on job satisfaction. In other words, the proposed study tries to find efficient weights for all five components of job satisfaction so that when we add them up we could get better results on difference between observed (so) versus calculated (sc) job satisfaction, i.e. Error = sc-so.

Let P_1, \dots, P_5 be five job satisfaction components namely work conditions, pay, promotion, supervisor and co-worker, respectively. Let W_1, \dots, W_5 be desirable weights of these five components, respectively. Let sc_1 and sc_2 be two different calculated job satisfaction as follows,

$$sc_1 = \sum_{i=1}^5 P_i, \quad (1)$$

$$sc_2 = \sum_{i=1}^5 W_i P_i. \quad (2)$$

We have used Genetic Algorithm to determine appropriate weights so that sum of squares of the error term is minimized and the results are summarized in Table 5 as follows,

Table 5

The summary of weights

W_1 (Work)	W_2 (Pay)	W_3 (Supervisor)	W_4 (Promotion)	W_5 (Co-workers)
18.53754	45.33822	10.91115	1.792805	23.92401

According to the results of Table 5, payment has received the highest weight followed by co-workers, work condition and promotion does not seem to play essential role on our system. Applying the new weights will reduce the gap from 52% to 25%. In other words, the new weighting system could reduce the gap between calculated and observed job satisfaction by 27%. Fig. 2 demonstrates the results after applying the weights.

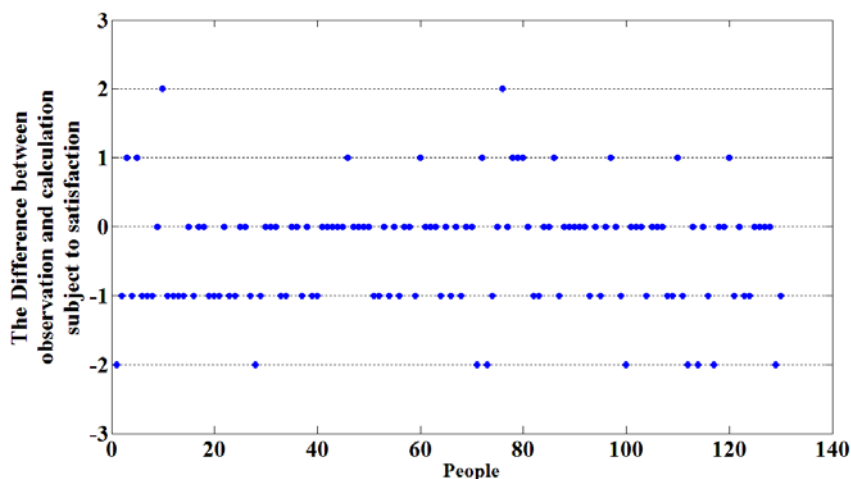


Fig. 2. The summary of calculated versus observed job satisfaction by new weights

4. Conclusion

In this paper, we have performed an empirical investigation to see whether there is a job satisfaction among some employees who worked for electricity transmission firm specially on for high-risk jobs or not. Although the results of our survey have confirmed that the employees have been relatively satisfied with their job conditions, however, our survey results indicate that higher wages will significantly influence their job satisfaction. In addition, having friendly environment where all co-workers are working together well will also contribute to work condition as well.

Acknowledgment

The authors would like to thank the anonymous referees for constructive comments on earlier version of this paper.

References

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18.
- Bergmann, T. J., Lester, S. W., De Meuse, K. P., & Grahn, J. L. (2011). Integrating the three domains of employee commitment: An exploratory study. *Journal of Applied Business Research (JABR)*, 16(4).
- Bhuan, S. N., & Menguc, B. (2002). An extension and evaluation of job characteristics, organizational commitment and job satisfaction in an expatriate, guest worker, sales setting. *The Journal of Personal Selling and Sales Management*, 22(1), 1-11.
- Boles, J., Madupalli, R., Rutherford, B., & Wood, J. A. (2007). The relationship of facets of salesperson job satisfaction with affective organizational commitment. *Journal of Business & Industrial Marketing*, 22(5), 311-321.
- Churchill Jr, G. A., Ford, N. M., & Walker Jr, O. C. (1974). Measuring the job satisfaction of industrial salesmen. *Journal of Marketing Research*, 11(3), 254-260.
- Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfilment. *Journal of occupational psychology*, 53(1), 39-52.
- Cramer, D. (1996). Job satisfaction and organizational continuance commitment: a two-wave panel study. *Journal of Organizational Behavior*, 17(4), 389-400.
- Gunlu, E., Aksarayli, M., & Perçin, N. S. (2010). Job satisfaction and organizational commitment of hotel managers in Turkey. *International Journal of Contemporary Hospitality Management*, 22(5), 693-717.
- Kwantes, C. T. (2009). Culture, job satisfaction and organizational commitment in India and the United States. *Journal of Indian Business Research*, 1(4), 196-212.
- Namasivayam, K., & Zhao, X. (2007). An investigation of the moderating effects of organizational commitment on the relationships between work-family conflict and job satisfaction among hospitality employees in India. *Tourism Management*, 28(5), 1212-1223.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194.