

*Full Length Research Paper*

## Investigating link between job characteristics and job satisfaction of extension workers

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**Job nature in extension services is associated with works in rural areas, which needs extension workers to show high levels of interest and job satisfaction. A survey of 52 extension workers was conducted in Markazi Province of Iran to explore the relationship between job characteristics and job satisfaction among extension workers using Bray Field and Rothe Job Satisfaction Index. The study found that the majority of the extension workers (65.5%) belonged to the intermediate level of job satisfaction, followed by 29.1 and 5.5% belonging to high and low levels of job satisfaction, respectively. Regression results also explained 30% of the variances in the job satisfaction. Two independent variables that accounted for the explained variances were the job challenge level (22%) and extension workers' ability to serve rural communities (8%). These results may be useful to policy makers both in the public and private sector and directors in general.**

**Key words:** Job satisfaction, job characteristics, extension workers, agricultural extension organization managers, Iran.

### INTRODUCTION

Iran's agriculture sector is one of the most important economic sectors of the country. During year 2004, the agricultural sector provided 14% of gross domestic product (in real prices), 25% of value of non-oil exports, more than 20% of employment, and 90% of processing industry's raw materials (Abdullahi, 2006). Since agricultural extension services play important roles with formulating and disseminating knowledge and helping farmers to be competent decision-makers, these services can highly contribute to effectiveness of the most projects aiming at agricultural development (Mohammadi, 2006). Nevertheless in Iran, agricultural extension system has still not been able to reach and support all potential clientele (Amirani, 2001). Also, this system in Iran is suffering from malfunctions in the area of human resource management and development (Karbasioun et

al., 2005; Hashemi and Hedjazi, 2011).

Job satisfaction has been the subject of great attention and much interdisciplinary research since the advent of the human relations school of management in the 1930s (Galup et al., 2008). In addition, there has been a new recent resurgence of interest in the analysis of job satisfaction variables (Gazioglu and Tansel, 2006). Given job satisfaction can be considered a multidimensional construct (Poulin, 1995); every scholar based on his/her major has tried to elaborate this construct differently. Bitsch and Hogberg (2004) for example defined job satisfaction as a general attitude toward an individual's current job and organization that encompasses the feelings, beliefs, and thoughts about that job. Job satisfaction is a measure of the degree to which the employee is satisfied and happy with the job (Dawal, 2008). Simply job satisfaction is the degree to which people like their jobs (Spector, 1997). It is clear that extension does not only involve delivering information to farmers, but should also attempt to make farmers creative, self-confident and competent enough to overcome their own problems and dilemmas (Sulaiman

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and Hall, 2003). To accomplish extension's mission, extension workers should display a high level of job satisfaction. Improving job satisfaction could also increase productivity of all extension workers.

Since most of the analyses dealing with the relationship between job satisfaction and other variables of interest have been conducted in Western countries (Seo et al., 2004) and studies of Iranian agricultural extension workers' job satisfaction and in particular the subject of this study were rare as well, knowing the factors related to extension workers' job satisfaction can be a paramount topic. Therefore, according to effects, importance and consequences of job satisfaction on organizational productivity, this study will first attempt to measure the extent of job satisfaction among extension workers, and then will indicate those job characteristics which most affect the extent of job satisfaction.

### Theoretical framework

Job satisfaction in organizations has been receiving increased attention because it reduces employee turnover, absenteeism, tardiness, and health setbacks due to stress. Workers who are satisfied at their workplaces show positive attitudes in their homes and make a psychologically healthy society (Chimanikire et al., 2007). According to Thompson and McNamara (1997), three theoretical frameworks of job satisfaction exist in the literature:

- (1) Content theories,
- (2) Process theories, and
- (3) Situation models.

Situation models of job satisfaction were used as the theoretical framework in this study. Situational theorists assume that the interaction of variables such as task characteristics, organizational characteristics, and individual characteristics influence job satisfaction. Job satisfaction in extension depends on many factors (Ensle, 2005). In other words, most suggested studies showed that job satisfaction can be affected by many factors, grouped into three major categories: factors relating to work settings, factors relating to specific aspects of jobs, and factors associated to the individuals involved (Baron, 1986). Furnham (1992) categorizes factors that can have an influence on job satisfaction into three groups namely:

1. Organizational policies and procedures that have to do with the nature of the remuneration package, supervision and decision-making practices, and the perception of the quality of supervision,
2. Aspects of the total workload, the variety of skills applied, autonomy, feedback and the physical nature of the working environment, and

3. Personal aspects such as self-image, ability to deal with stress and general satisfaction with life.

Researches suggest that significant relationships exist between various job characteristics and such job-related outcomes as absenteeism, job satisfaction, and performance (Fried and Ferris, 1987; Jansen et al., 1996; Voydanoff, 1978; Conway and Briner, 2002). Hackman and Oldham's (1974) job characteristics model (JCM) suggests that five core job dimensions affect certain personal and work-related outcomes, including work motivation and job satisfaction. The five core job dimensions they identified are autonomy, feedback, skill variety, task identity, and task significance.

Therefore, the JCM has been offered as a framework to managers for designing jobs that are intrinsically motivating and satisfying to individuals (Friday and Friday, 2003). Galup et al. (2008) suggested job characteristics which include task independence, task autonomy, and job involvement and management support which can mediate the relationship between work status and job satisfaction (Ang and Slaughter, 2001). Because much of the discussion on job satisfaction has been done in the context of the developed countries with few studies in the developing countries (Chimanikire et al., 2007) and on the other hand, studies of Iranian agricultural extension workers' job satisfaction are rare (Asadi et al., 2008) and also as Cornelißen (2006) mentioned, it is interesting to see which job characteristics are most important for satisfaction, this investigation attempts to identify extension workers' job characteristics and their relationships with job satisfaction.

### Purpose and objectives

The main purpose of this research was to investigate job characteristics roles in determining extension workers' job satisfaction. The objectives were to:

- i) Study the *status quo* of job characteristics among extension workers,
- ii) Measure the extent of job satisfaction among extension workers, and
- iii) Study the extent to which certain job characteristics associated with the job satisfaction amongst extension workers.

### MATERIALS AND METHODS

#### Selection of sample

A survey of extension workers with Extension Departments of Ministry of Jihad-e-Keshavarzi was conducted in Markazi Province, Iran. All the extension personnel of the study area who were working in the field or had duties in the headquarters (69 individuals) constituted the population of the study. Since Markazi Province enjoys high potential for being developed in agriculture

sector, transfer of appropriate technologies and knowledge will scale up the development of the region. Development department of extension agency play an important role as an innovation diffusion agent to help boost the agricultural sector. However, the capability of a development department in achieving its goals depends on the commitment of its employees. A satisfied workforce leads to higher productivity because of fewer disruptions such as absenteeism, and departure of good employees.

### Instrument

A variety of scales and self-developed indices are employed to collect the data. Research was conducted through a questionnaire consisting of job characteristics and job-satisfaction questions. Job satisfaction measured using Brayfield and Rothe Job Satisfaction Index (Brayfield and Rothe, 1951). This scale is a self-report instrument that measures job satisfaction across 20 different items. The list of items was assembled and adjusted from previous study conducted with items translated into Persian (Rezvanfar and Rezaee, 2008). Respondents were instructed to indicate the extent of their agreement with each item using a five point Likert-type scale from 1 to 5 as follows: 1= strongly disagree, 2= disagree, 3= neither disagree nor agree, 4= agree, and 5= strongly agree. The scale included 10 positive and 10 negative statements. The higher scores on the scale indicate higher job satisfaction.

Job characteristics scale also used to measure job characteristics using 10 items which are rated on a five point continuum from very low, low, medium, high, and very high. To estimate the reliability of the questionnaire the Cronbach's alpha coefficient was calculated (Aaker et al., 2009). This coefficient ranges in value from 0 to 1 and describes the reliability of factors extracted from dichotomous and/or multi-point scales. The higher this score, the more reliable the generated scale is. Cronbach's alpha coefficients were found to be 0.70 and 0.84 for job characteristics, and job satisfaction scales, respectively, indicating an acceptable level of reliability (Nunnally, 1978). Before the survey, the questionnaire was initially tested for content validity and modified accordingly based on certain comments of Tehran University Agricultural Extension and Education Department scientific board members. Following the distribution of the questionnaire, 55 out of 69 questionnaires were returned; representing a response rate of 0.79. Extension workers gave oral consent to participate in the study after they heard a brief explanation of the study's objective. To avoid any potential bias, it was made clear to the respondents that the survey was only for academic research.

### Data analysis

In this research, descriptive and inferential statistics were used to analyze collected data. Descriptive statistics were included frequencies, percentage, mean score and standard deviation, and inferential statistics were included correlation coefficients and regression analysis. In preparation for the stepwise regression analysis, variables at the nominal level were coded into a set of dummy variables (Norusis, 1990). All data were analyzed using the SPSS for Windows (version 11.5.0) and Microsoft Excel.

## RESULTS AND DISCUSSION

### Frequency and percentage of job characteristics variables

Table 1 presents frequency and percentage of job

characteristics variables as reported by respondents. It is obvious from the Table 1 that majority of respondents (58.2%) belonged to medium to very high social status. According to attractiveness, 42 (76.4%) respondents belonged to the category of medium to very high.

### Level of job satisfaction

The overall index of job satisfaction is identified on the mean score and standard deviation obtained from a 20-item questionnaire as shown in Table 2. A total score of 0 to 50 is interpreted as low job satisfaction, while 70 and over is considered to represent high job satisfaction. According to Table 3 the majority of the extension workers (65.5%) belonged to an intermediate level of job satisfaction, followed by 29.1 and 5.5% belonging to high and low level of job satisfaction, respectively. In other words, the majority of respondents (94.6%) belonged to medium to high level of job satisfaction, followed by 5.4% belonging to low levels of job satisfaction.

### Relationship between job satisfactions with other independent variables

As shown in Table 4, there was a non-significant relationship between job characteristics variables including simplicity, social status, attractiveness, innovation and creativity, level of job autonomy, clarity of employee role, and appropriate levels of job responsibility and authority and job satisfaction. On the other hands, there was a significant positive relationship between level of job challenge, clarity of job responsibilities, and ability to serve rural communities and job satisfaction.

The identification of job characteristics variables associated with extension workers' job satisfaction.

Regression analysis by Enter method was used to determine predictive equation changes in job satisfaction. As shown in Table 5 for extension workers, regression procedures indicated that the full model was moderately successful, explaining 30% (Adjusted  $R^2 = 0.30$ ) of the variance, in job satisfaction. Two independent variables that accounted for the explained variance were job challenge level (22%) and ability to serve rural communities (8%). In other words, extension workers who perceived higher levels of challenge in their jobs and with higher levels of ability to serve rural communities, in two cases, they was more likely to have higher levels of job satisfaction. However there was a relationship between dependent variable (Y) and independent variables as shown in the equation:

$$Y = 50.763 + 2.349X_1(\text{Job challenge level}) + 2.503X_2(\text{Ability to serve rural communities}).$$

### Conclusions

This study aimed at investigating the relationship

**Table 1.** Frequency and percentage of respondents according to job characteristics variables.

Items	Very low		Low		Medium		High		Very high	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Simplicity	11	20.0	12	21.8	18	32.7	9	16.4	5	9.1
Social status	8	14.5	11	20.0	21	38.2	7	12.7	8	14.5
Attractiveness	5	9.1	8	14.5	14	25.5	21	38.2	7	12.7
Job challenge	11	20.0	7	12.7	17	30.9	11	20	9	16.4
Innovation and creativity	3	5.5	12	21.8	8	14.5	24	43.6	8	14.5
Level of job autonomy	7	12.7	12	21.8	17	30.9	10	18.2	9	16.4
Clarity of job responsibilities	6	10.9	11	20.0	16	29.1	13	23.6	9	16.4
Clarity of employee role	7	12.7	10	18.2	18	32.7	14	25.5	6	10.9
Job appropriate levels of responsibility and authority	9	16.4	10	18.2	20	36.4	13	23.6	3	5.5
Ability to serve rural communities	4	7.3	13	23.6	14	25.5	13	23.6	11	20.0

**Table 2.** Job satisfaction index (N=55).

Items	Mean	SD
My job is pretty interesting.	2.85	1.193
I like my job better than the average worker does.	2.89	1.286
It seems that my friends are more interested in their jobs.	2.91	1.236
I am adequately paid for the job I do.	3.09	1.251
I feel fairly well-satisfied with my present job.	3.18	1.307
I am often bored with my job.	3.18	1.056
I enjoy my work more than my leisure time.	3.20	1.282
My job has a fair (impartial) promotion policy.	3.24	1.186
My job is interesting enough to keep me from being bored.	3.27	1.162
I feel that I am happier in my work than most other people.	3.29	1.301
I consider my job rather unpleasant.	3.33	1.187
My job is like a hobby to me.	3.36	1.393
Each day of work seems like it will never end.	3.36	1.112
I find real enjoyment in my work.	3.38	1.209
Most days I am enthusiastic about my work.	3.42	1.243

**Table 2.** Contd.

I am satisfied with my job for the time being.	3.53	1.184
I am disappointed that I took this job.	3.53	1.230
Most of the time I have to force myself to go to work.	3.53	1.168
I definitely dislike my work.	3.76	1.105
I feel my job is more interesting than others I could get.	3.82	1.038

**Table 3.** Frequency distribution of extension workers according to their level of job satisfaction.

Level of job satisfaction	Frequency	Percentage
Low (Up to 50 points)	3	5.5
Medium (50-70 points)	36	65.5
High (above 70 points)	16	29.1
Total	55	100

**Table 4.** Correlational analysis between job satisfaction and independent variables.

Independent variable	Correlation coefficient	Significance level
Simplicity	0.006	ns
Social status	0.057	ns
Attractiveness	0.11	ns
Job challenge	0.54	**
Innovation and creativity	0.17	ns
Level of job autonomy	0.20	ns
Clarity of job responsibilities	0.27	*
Clarity of employee role	0.08	ns
Job appropriate responsibility and authority	-0.09	ns
Ability to serve rural communities	0.46	**

\* Significant at  $P < 0.05$ ; \*\* significant at  $P < 0.01$ .

between job characteristics and job satisfaction among extension workers. The present study showed that majority of extension workers (65.5%) belonged to the intermediate level of job

satisfaction, followed by 29.1 and 5.5% belonging to high and low level of job satisfaction, respectively. Furthermore, the study confirmed job characteristics that have considerable impacts on

extension workers' level of job satisfaction. In other words, contribution of job characteristics was 30% in the explaining of variances in the job satisfaction through variables including job

**Table 5.** Regression analysis for job characteristics associated with extension workers' job satisfaction.

Step	Variable	B	S.E	Beta	Significance level	R	R <sup>2</sup>	Adjusted R <sup>2</sup>
1	Constant	56.572	2.598		0.000			
	Job challenge level	3.110	0.761	0.489	0.000			
2	Constant	50.763	3.294		0.000			
	Job challenge level	2.349	0.776	0.370	0.004	0.489	0.240	0.225
	Ability to serve rural communities	2.503	0.943	0.324	0.011	0.575	0.330	0.305

challenge level and ability to serve rural communities. That is, extension workers who perceived higher levels of challenge in their jobs and with higher levels of ability to serve rural communities, in two cases, they were more likely to have a higher level of job satisfaction.

Therefore, policy makers should conduct a periodic needs assessment to determine the level of job satisfaction of personnel and identify methods for increasing satisfaction (Furnham, 1992). Based on these findings, it is recommended to pay more attention to the role of in-services trainings in extension because job training is found to increase all measures of job satisfaction (Gazioglu and Tansel, 2006). Even though this study highlighted the contribution of job characteristics and in particular the contribution of variables of job challenge level and ability to serve rural communities in job satisfaction, but it should also be considered that excessive challenge to one's abilities may bring in frustrations (Robbins, 1991). Moreover, the regression model explained 30% of the variances in the job satisfaction, indicating that the remaining variances was explained by other factors such as organizational, personal variables, etc. Therefore, it is recommended that further studies investigate the contribution of other factors apart from job characteristics in job satisfaction and to investigate factors affecting the improvement of extension workers' job characteristics status as well.

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