



# Effects of stress on auditors' organizational commitment, job satisfaction, and job performance

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## ABSTRACT

### Keywords:

Job Stress, Job Satisfaction, Job Performance, Organizational Commitment

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This study was designed to measure the effects of job stress on organizational commitment, job satisfaction, and job performance. A total of 170 questionnaires were distributed among auditors in the audit institutions in Tehran and Mashhad. To test the hypotheses, path analysis and structural equation and regression were employed. The results showed that the job stress had a negative effect on organizational commitment and job satisfaction and there was not a negative correlation between job stress and job performance. Job stress via organizational commitment and job satisfaction affected job performance negatively. Also, job stress had a negative impact on job satisfaction via organizational commitment.

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## Introduction

According to the scientists of human resource management, in order to maintain human resources (satisfaction) and also the organization itself (achieving organizational goals), it is of prime importance to recognize the needs, desires and factors such as job satisfaction, employee's morale as well as to make appropriate policy for the coordination of individual's

goals (employee's job satisfaction) and organizational goals as an important step towards efficiency and effectiveness of organizations performance.

In recent years, more attention has been drawn to stress and its effects on organizations. Although in medical science, the causes of stress and its impacts have long been investigated; however, it is a recent debate on organizational performance. Despite the idea that stress is somewhat beneficial and some stress is essential to activate people, however, when stress is discussed, the focus is more on its side effects and consequences. Therefore, stress has great impact on organization members' performance and activities. Managers, staff, and clients, under the influence of certain mental states, behave in such a way that its reflection on organization's efficiency is tangible. Stress has physical effects and thereby damages the organization. Acute stress destroys the organization's human resources and defeats the purposes of the organization. Stress is one of the essential features of mental health of the ever changing and dynamic world. Therefore, the present study examined the impact of stress on job satisfaction, organizational commitment, and job performance.

### **The Literature Review**

Kathleen (2008) in a study examining the relationship between leadership style and organizational commitment under the influence of stress concluded that there is no relationship between stress and commitment. In his study, he considered the stress as the mediator variable. Steers (1977) found that there was no significant relationship between education and commitment; however, there was a significant relationship between employees' age and commitment. The same result obtained for the relationship between organizational commitment and level of education. Chu (2006) in a study on nurses in Taiwan observed that stress had an impact on organizational commitment which consequently affected the quality of organizational behavior. Colquitt, LePine, and Wesson (2009) in their investigation found that organizational commitment and job performance had a close relationship with the organizational behavior. Lina, Aukse, and Loreta (2007) acknowledged that there was a relationship between commitment and lower shift. In addition, Gazioglua and Tansel (2006) studied the impacts which some measures of job training could have on job satisfaction. They found that employees who received job training were more satisfied than those who had no training opportunities. Also, in examining a sample of teachers who worked only in merit pay districts, Gius (2013) found that teachers who received merit pay were more satisfied with their jobs than teachers who did not receive merit pay.

Chan and Qiu (2011) examined the relationship between loneliness, job satisfaction, and organizational commitment of migrant workers. They found that migrant workers were satisfied with their jobs and were committed to their organizations and were not lonely. This research also indicated that lonelier migrant workers had higher job satisfaction while job satisfaction had significant positive correlation with organization commitment. Lee and Sabharwal (2014) examined the relative importance of education–job match and salary for college graduates working in the public, non-profit, and for-profit sectors. The findings indicated that non-profit and public employees did the work that matched their education and derived a great amount of satisfaction from it. For-profit employees compensated their loss in the satisfaction due to the mismatch between education and job with their gain in the satisfaction derived from salary.

Khodabandeh and Sattari Ardabili (2015) investigated the mediating role of organizational commitment and political skills in occupational self-efficacy and citizenship behavior of employees. According to their results, it is important to improve employees' organizational citizenship behavior which would result in their notable ability in meeting customers' demands. Wolf and Kim (2013) conducted an investigation to determine if there was a link between emotional intelligence (EQ-i) and job satisfaction and job tenure of hotel managers. The findings of this study showed that EQ-i was positively associated with job satisfaction and industry tenure, but not with company tenure.

### **Conceptual Framework**

Job satisfaction remains an effective structure in the organizational literature for a number of reasons, namely the intrinsic desirability of employee satisfaction, job satisfaction's relationship with a variety of related workplace behaviors such as job performance (Judge, Thoresen, Bono, & Patton, 2001), and its strong relationship to related constructs such as organizational commitment (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002).

Most models of turnover assumed that greater job satisfaction leads to greater organizational commitment (Bluedorn 1982; Marsh & Mannari, 1977; Price & Mueller, 1981). Job satisfaction was positively correlated with organizational commitment (Mowday, Steers, & Porter, 1979; Schwepker, 2001). Since job satisfaction has an important impact on employee turnover, therefore, understanding the attributes of job satisfaction in different sectors is a timely research topic (Lewis & Cho, 2011).

The prominence of job stress as a research topic has been associated in part with the amount of its effects. In addition to having relationship with a number of physical diseases such as hypertension (D. O'Connor, R. O'Connor, White, & Bundred, 2000; Tindall, 1998), high levels of job stress can bring about a negative effect on emotional well-being (Sharma, A. S. Yadava, & A. M. Yadava, 2001). High levels of job stress have been related to and associated with low levels of productivity on the organizational level (Gandham, 2000; Reynolds, 1997). An opposite relationship between job stress and job satisfaction among various populations has been presented in the literature.

### **Research Hypotheses**

The following hypotheses guided the present study:

**H<sub>1</sub>:** Job stress has a negative effect on organizational commitment.

**H<sub>2</sub>:** Stress has a negative effect on job satisfaction.

**H<sub>3</sub>:** Stress has a negative effect on job performance.

**H<sub>4</sub>:** Job stress via organizational commitment and job satisfaction has a negative impact on job performance.

**H<sub>5</sub>:** Job stress via job satisfaction has a negative impact on organizational commitment.

### **Method**

#### **Participants**

The participants were auditors in large cities (Tehran and Mashhad). These auditors had at least three years of experience. The study used random sampling method. A total of 30 questionnaires were distributed in Tehran and 170 questionnaires in Mashhad. They were distributed in some Audit Institutions called Ebtekar Argham, Argham Pouya, Afagh Kavoshgaran in Mashhad and in CPAs in Tehran. A total of 200 questionnaires were received, of which 30 were incomplete and therefore were excluded from further analysis.

#### **Instrument**

To collect data, questionnaire was used. In the questionnaire, the purpose for data collection and the necessity for the respondents' accurate answer were expressed. Questions consisted of two main parts:

A) General questions: In general questions, it was tried to collect respondents' demographic information. This section contained 13 questions.

B) Technical questions: This section contained 25 questions. The questions were short and easy to understand. In this part, Seven-point Likert-type scale was used.

Ratings were arranged from "strongly agree" (7 points) to "strongly disagree" (1 point). Table 1 shows the division of the questions based on the variables presented.

Table1  
*Division of Questions based on the Variables Presented*

Related Variables	The Number of Items in Questionnaire	The Total of Items
Organizational Commitment	1 to 9	9
Job Stress	10 to 23	14
Job Satisfaction	24	1
Job Performance	25	1
Total	25	25

### Data Analysis

Data analysis was performed using descriptive and inferential statistics. Frequency distribution, frequency and statistical charts were used in descriptive statistics. Structural equation modeling (SEM) method was employed in inferential statistics.

Structural equation modeling is a comprehensive statistical approach to test hypotheses about the relationship between observed and latent variables, and sometimes covariance and structural analysis is called causal modeling but the common term used these days is SEM. In fact, a SEM is a specified causal structure among a set of observed structures which is measured by a set of indicators (observed variables) and its value can be tested in a particular population. SEM is one of the statistical models for examining the linear relationship between latent variables (unobserved) and manifests variables (observed) or research questions. To test this model, EQS software was used. The reason for choosing this approach is that EQS takes advantage of using several observable variables as indices of a latent variable. Therefore, it measures latent variables more effectively. In present study, structural relations model was employed to analyze the data. After drawing analytical model based on the data obtained by the path diagram, the data was analyzed using t-test. Also, suitability index model was calculated for the model. After collecting the questionnaires, the results obtained and then SPSS predictive analytics software was used to prepare the statistical tables and charts. Finally, the data analysis was performed employing SEM as well as using the software EQS6.1. This software using the correlation and measured covariance can estimate and infer the values of factor loadings, variance, and errors related to the latent variables. It can be

employed to conduct exploratory factor analysis, second order factor analysis, confirmatory factor analysis and also causal modeling by latent variables.

**Results**

**Estimating the Model and Evaluating the Suitability**

At first, the data obtained from the sample was turned into covariance or correlation matrix and characterized by a series of regression equations. Then, it was possible to analyze the suitability of the model for the sample coming out of the population. This analysis gives the estimation of the model's parameters (path coefficients and errors) and also measures the suitability of the model for the sample data several times. When a model is specified, estimated and tested, several indices can assess its suitability. The most important ones are summarized and shown in Figure 1 and significant coefficients are marked with an asterisk.

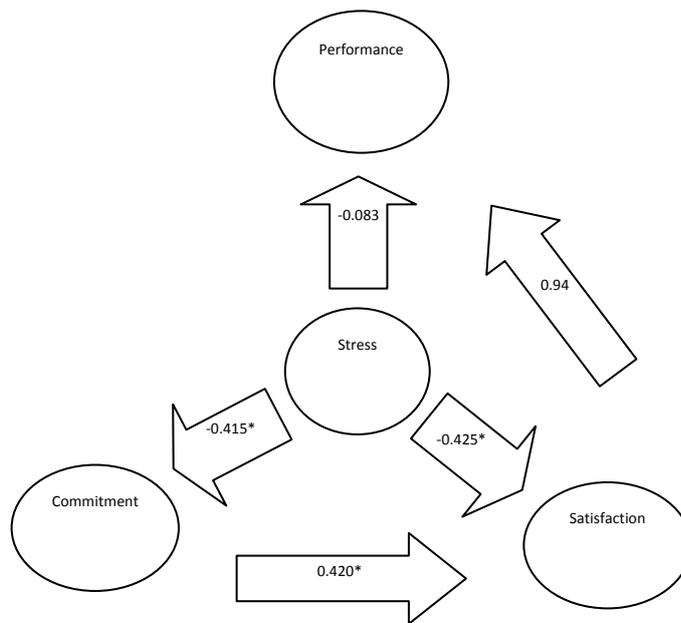


Figure 1. The basic model of research

Table 2 shows the results of SEM.

Table 2  
The Results of Structural Equation Model

Path	Path Coefficients	T-Values
Stress → Commitment	-0.41	-2.48
Stress → Job Satisfaction	-0.42	-2.49
Commitment → Job Satisfaction	0.42	4.33
Job Satisfaction → Performance	0.94	1.76
Stress → Performance	-0.08	-0.21

The first equation of structural equation represents the effect of stress on organizational commitment. In this equation, the path coefficient is -0.41. Given that some of the t-value obtained in terms of absolute value was less than 2, this path was not significant and could be removed from the model. Significant paths are marked with an asterisk. Therefore, the stress path to performance and satisfaction to performance was not statistically significant and they can be removed. By removing one path, it is probable that the other path can be meaningful. Therefore, since some paths of initial model were not statistically significant, the stress path to performance was removed and the new models were evaluated.

### **The Modified Model**

To test the null hypothesis as a model for the intended population, the Chi-square index was calculated. Significant chi-square indicated that the null hypothesis was rejected. Accordingly, there was not such a statistical population. Chi-square value for the model was equal to 927.23 which showed that there was such a statistical population.

Other indices for the suitability model were as follow:

RMSEA=0.118 NNFI=0.610 NFI=0.577 AGFI=0.678 GFI=0.739

GFI and AGFI (the sizes for LISREL), under the influenced of sample size, can be so large for the weakly formulated models.

NFI: It is the Normed Fit Index. If the value is between 90/0 to 95/0, it is acceptable and higher levels are excellent.

NNFI: It is the Non-Normed Fit Index and if the index is greater than 0/1, it is considered equal to 0.1.

RMSEA: It is the square root of the estimated approximate error variance which is reported in decimal. Among the mentioned indices, RMSEA and GFI are of prime importance. RMSEA index is equal to 0/5 or less than 0/5 for good models. The models which their RMSEA are 1/0 or more their suitability is poor. When GFI index is closer to 0.1, it indicates a good suitability model. When in the intended model, the value of RMSEA index is 0.11 and GFI value is 0.73, it represents that the suitability model is relatively acceptable.

The output of EQS software based on the equation consists of two parts: Structural equations: It defines the interface among latent variables in the model, by which standardized regression coefficients (path coefficients or B) are calculated. Finally, the errors are calculated for equations.

Table 3 presents the results of the modified SEM.

Table 3  
*The Results of the Modified SEM*

Path	Path Coefficients	T-Values
Stress → Commitment	-0.37	-3.06
Stress → Job Satisfaction	-0.425	-3.27
Commitment → Job Satisfaction	0.45	4.65
Job Satisfaction → Performance	1.00	3.81

For example, the first equation of structural equation represents the effect of stress on organizational commitment, in the presented equation the path coefficient was -0.37. Since all t-values obtained in terms of the absolute value were greater than 2, all paths were significant.

Figure 2 shows that the model was verified and modified in this study.

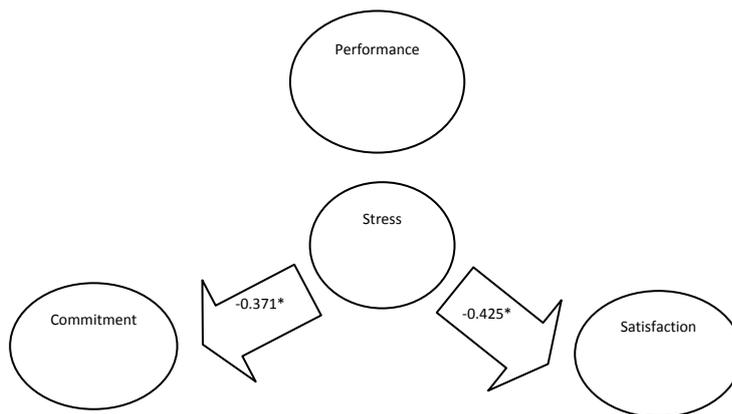


Figure 2. Verified model

### Measurement Equations

This set of equations represent the correlation between the measured variables (markers) with latent variables by standardized regression coefficients (B). At the end of each equation, the value of the error and variance were written.

In addition, the value obtained from t-test appeared under the equation to evaluate the significance of the relationship between each of the indicators with related variables. Nine set of measurement equations (Q1 to Q9) is related to organizational commitment. Four measurement equations (Q11 to Q23 except Q21, Q13) is concerned with the job stress, Q24 was related to job satisfaction, and Q25 pertained to performance.

In each measurement equations, the beta value was evaluated by t-test. If the test result was smaller than 1.96, represented that the measured variable was unnecessary for the

estimation of the latent variable. In this case, the measured variable was removed from the model and a new number of measured variables was tested again.

*Table 4*  
*The Results of the Measurement Model*

Latent Variables	Indices	Path Coefficients (B)	T-Values
Organizational Commitment	Q1	0.68	---
Organizational Commitment	Q2	0.67	7.83
Organizational Commitment	Q3	0.60	7.67
Organizational Commitment	Q4	0.68	7.95
Organizational Commitment	Q5	0.72	8.35
Organizational Commitment	Q6	0.73	8.47
Organizational Commitment	Q7	0.64	7.50
Organizational Commitment	Q8	0.43	5.18
Organizational Commitment	Q9	0.43	5.16
Job Stress	Q11	0.36	---
Job Stress	Q12	0.42	3.52
Job Stress	Q14	0.44	3.60
Job Stress	Q15	0.61	4.10
Job Stress	Q16	0.41	3.48
Job Stress	Q17	0.45	3.66
Job Stress	Q18	0.50	3.81
Job Stress	Q19	0.67	4.21
Job Stress	Q20	0.74	4.31
Job Stress	Q22	0.58	4.03
Job Stress	Q23	0.56	3.98
Job Satisfaction	Q24	0.81	---
Job Performance	Q25	0.40	---

### The Hypothesis Testing

**The first hypothesis:** Job stress has a negative effect on organizational commitment.

According to Figure 2, the path coefficient between job stress and organizational commitment was -0.37. According to t-test, at confidence level of 95%, the null hypothesis was rejected. So, it was confirmed that stress impacted organizational commitment negatively.

**The second hypothesis:** Job stress has a negative effect on job satisfaction.

According to Figure 2, the path coefficient between job stress and job satisfaction was -0.42. According to t-test, at confidence level of 95%, the null hypothesis was rejected. So, it was confirmed that job stress had a negative impact on job satisfaction.

**The third hypothesis:** Job stress effects negatively job performance.

According to Figure 2, since this path was not statistically significant, and was removed from model. Thus, this hypothesis was rejected.

**The fourth hypothesis:** Job stress via organizational commitment and job satisfaction has a negative impact on job performance.

According to Figure 2, the path coefficient between job stress and organizational commitment was -0.37, the path coefficient between organizational commitment and job satisfaction was equal to 0.45, and the path coefficient between job satisfaction and performance was 1.00. According to t-test, at confidence level of 95%, the two paths were significant. Therefore, this hypothesis was approved. In fact, the indirect effect of stress on performance was obtained by multiplying the coefficient which was equal to:

$$-0.37 * 0.45 * 1 = -0.17$$

**The fifth hypothesis:** Job stress via job satisfaction has negative impact on organizational commitment.

This claim could not be assessed in this model. The direction of causality was unidirectional. So, it could never be claimed that organizational commitment causes job satisfaction and vice versa. Now the fifth hypothesis could be examined examine as follow: job stress affects negatively job satisfaction via organizational commitment. This hypothesis was confirmed by the fact that both paths were meaningful.  $-0.37 * 0.45 = -0.17$ .

## Discussion and Conclusion

The results showed that organizational commitment and job satisfaction were negatively affected by job stress; however, it was not confirmed that job stress impacted job performance negatively. The results confirmed that job stress had a negative effect on job performance via organizational commitment and job satisfaction. As well, job stress had a negative effect on job satisfaction via organizational commitment.

Angle and Perry (1981) did a research in the field of organizational commitment and concluded that organizational commitment is influenced by factors such as compatibility, stress, and job performance. However, there is not such a effect for absenteeism. The results obtained for the relationship between stress and commitment is similar to the results obtained in the present study. Kathleen (2008) in a study examining the relationship between leadership style and organizational commitment under the influence of stress concluded that there is no positive relationship between them. He considered stress as an mediator. Regarding the relationship between organizational commitment and stress, their results were

different from the present study. In a study on nurses in Taiwan, Chu (2006) came to the conclusion that the stress influenced organizational commitment which in turn affected how individuals behave in organizations. In this regard, the results were similar to the results of present study.

At present, organizations need to effective and efficient people in order to achieve their goals and develop comprehensively. On the other hand, commitment improves managers' performance; therefore, the organizational commitment as an important issue should be expanded and draw more attentions in organizations. In addition, in today's world, stress is the most important issue among managers and employees. Organizations should provide grounds for reducing and managing stress. Certainly, stress affects other organizational issues in addition to organizational commitment, job satisfaction, job performance. We hope that researchers interested in this field study further.

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