

## JOB STRESS AND PERFORMANCE: THE MEDIATING EFFECT OF EMOTIONAL INTELLIGENCE<sup>1</sup>

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### ABSTRACT

**T**he purpose of this study is to contribute to the performance literature by testing a model that combines performance, job stress and emotional intelligence. Data were collected from 232 employees from small-medium enterprises. Our findings showed that, as hypothesized, job stress and emotional intelligence meaningfully correlated with performance. Besides, emotional intelligence had a mediating effect in the relationship between job stress and performance.

*Keywords: Performance, job stress, emotional intelligence, small-medium enterprise*

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<sup>1</sup> Parts of this paper presented at 10<sup>th</sup> International Strategic Management Conference 2014

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## 1. Introduction

The low productivity of the employee will have an impact on the poor performance of enterprises. Common sense and scientific research suggest that employees who are happy and engaged are also more productive, whereas employees lacking energy or other resources show performance decrements (Demerouti, Backer, Leiter, 2014). One of the factors that can decrease the performance of employees is stress. Adverse effects of work stress are evident to both employees and the organizations which hinders the productivity (Khan & Ali, 2013). Stress is a negative consequence of modern living. In an age of highly dynamic and competitive world, man is exposed to all kinds of stressors that can affect him on all realms of life (Revati, 2012). Stress has grown hugely in recent years, forms part of most people's daily vocabulary but its meaning remain unclear which takes us to question: what is stress? There are a lot of definitions of stress. Stress can be defined as a psychological and physical reaction to prolonged internal and/or environmental conditions in which an individual's adaptive capabilities are overextended. Work related stress is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to work (Leka, 2003). According to Lazarus (1966) "Stress ascends when persons observe that they cannot sufficiently cope with the demands being made on them or with pressures to their well-being. Stress outcomes from a difference among demands and possessions (Lazarus & Folkman, 1984). Recent studies show that physiological and psychological stresses are in connection with employee's job performance. Many researchers have noted that there are a negative relationship between job stress and performance (Wu, 2011). Emotional intelligence brings together the fields of emotions and intelligence by viewing emotions as useful sources of information that help individuals to make sense of and navigate the social environment (Por, Barriball, Fitzpatrick, Roberts, 2011). Many organizational behaviorists have responded to the growing significance of emotional intelligence by attempting to identify factors that influence employees' performance at work. (Mishra & Mohapatra, 2010).

Since there are few studies on mediating effect of emotional intelligence in job performance research literature; this study provides a study which combines performance, job stress and emotional intelligence.

## 2. Literature Review and Hypotheses

### 2.1. Job Stress and Performance

In early work, Lazarus defined stress individuals perceive external demands greater than their ability to cope with the situation. Later, other researchers explored stress from a work perspective. They described work-related stress as a cognitive experience brought on by demands, constraints or opportunities which require an employee to deviate from their normal function. There is a plethora of research in the academic literature examining the ill effects of stress and stressors on individuals. These studies include examining negative health effects, individual job performance, organizational performance, and work/family relationships (Whitman & Isakovic, 2012). Job stress is an extension of general stress, specifically a result of work task, the workplace, the job characteristics, role conflict, or worker capabilities (Jou, Kuo, Tang, 2013). The degree of stress is correlated with a person perceived inability to deal with an environmental demand (Akoijam & Meitei, 2011). Job stress is caused by the work tasks themselves which are the physical and psychological demands of performing a job. It may also because by work roles because work organizations are complex social systems in which a worker must interact with many people (Riggio, 2003). A number of features within the workplace (intrinsic to job role, role within organisation, career development, work relationships, organisational climate/structure have the potential of producing negative organisational and extra-organisational outcomes which often impair mental health and physical well-being (Babatunde, 2013).

Work stress is thought to affect organization by: increasing absenteeism, decreasing commitment work, increasing staff turn-over, impairing performance and productivity, increasing unsafe working practices and accident rate, adversely affect staff recruitment, damaging the organization's image both among its workers and externally (Leka et al., 2003).

Job performance is defined as in-role behaviors that are required in one's job description (Williams & Anderson, 1991). In another definition job performance is defined as the ability of individuals to accomplish their respective work goals, meet their expectations, achieve benchmarks or attain their organizational goals (Ismail, Suh, Ajis, Dollah, 2009).

In this study we adopted three dimensions of job stress organized by Kawada & Otsuka (2011): Job demand, Job support and Job Control. Job demand includes factors intrinsic to the job such as working conditions (for example noise, temperature, lighting or ventilation), shift work, long or unsociable hours, workload. Job demand refers to the degree to which an employee has to work fast and hard, has a great deal to do, has too little time, and can be captured as psychological stressors (Hiseh & Wang, 2012). Job support includes the amount of support and job training available, as well as encouragement, sponsorship and resources provided by colleagues and management. Job control includes how much say and autonomy a person has over the way in which he carries out his job; low levels of job control are typically linked to high levels of stress.

Thus, the following hypothesis is developed:

*H1: There is a negative relationship between job stress and performance.*

## **2.2. Emotional Intelligence as a Mediating Variable in Job Stress and Performance Relation**

Emotional Intelligence is defined as one's ability to recognize one's own feeling and others' feeling, to differentiate among them, and to use the information to manage one's thinking and behavior. Emotional Intelligence significantly contributes to reducing job stress by better identifying feelings of frustration and stress and, consequently, regulating those emotions. For example, employees with high emotional intelligence tend to have ability to understand the causes of stress and to promote positive work environment which makes them suffer less job stress (Jang & George, 2011). *Emotional intelligence may contribute to work performance (as reflected in salary, salary increase, and company rank) by enabling people to nurture positive relationships at work, work effectively in teams, and build social capital (Lopes, Grewal, Kadis, Gall & Salovey, 2006). Recent researches indicate that emotional intelligence influences behaviour in a wide range of domains including school, community, and the workplace. At the individual level, it has been said to relate to academic achievement, work performance, ability to communicate effectively, solve everyday problems, built meaningful interpersonal relationships, and even ability to make moral decisions (Emmerling, Shandal, Mandal, 2008). Goleman (2000), stated that Emotional intelligence is an important factor for employees' teamwork, cooperation, and working more effectively. According to Gibbs (1995), Emotional intelligence may be the best predictor of success in life, redefining what it means to be smart. In social life managing feelings means that, in contrast to the suppression of feelings, understand them and match the feeling to situations to take advantage of it efficiently (Satija & Khan, 2013). These people who have the skills to manage their feelings are more productive (Goleman, 2000). Many studies indicate that emotional intelligence affects performance (Shipley, Jackson, Segrest, 2010). Certain studies have identified a positive relationship between emotional intelligence and job performance, whereas some have found no or inconsistent relationship between emotional intelligence and job performance (Yusoff, Khan, Azam, 2013).*

Some studies have asserted that some personality traits have a mediator affect between stress and performance. For example Ismail et al. confirm that emotional intelligence does act as a full mediating variable in the relationship between job stress and job performance in the organizational sector. Because

stress can lead to negative consequences in the workplace, researchers are interested in reducing stress and promoting overall well-being. Some of the most common recommendations for reducing stress include maintaining a strong social support network (Kutcher, Bragger, Srednicki, Masco, 2010). Job stress is negatively related with job performance and emotional intelligence in such a way that the capabilities of employees to appropriately manage their emotions will boost up the ability of employees to deal with physical and psychological stressors at workplace( Yossof et al.,2013).

Thus, the following hypothesis is developed:

*H2: There is a negative relationship between job stress and emotional intelligence.*

*H3: There is positive relationship between emotional intelligence and performance*

*H4: Emotional intelligence mediates the relation between job stress and performance.*

### **3. Methodology**

#### **3.1. Research Goal**

In this research we aimed to identify the mediating effect of emotional intelligence on the relationship between job stress and performance. Data produced in this study were collected by survey. The survey consisted of four measures. In the first part questions about the demographic characteristics of employees; in the other three parts questions designed to measure job stress, performance and emotional intelligence were asked. Data obtained from questionnaires analyzed through the SPSS/AMOS statistical packet programs and tested through regression analyses.

#### **3.2. Sample and Data Collection**

The contributors in the current study comprised 265 banking employees from small-medium enterprises in Turkey. Participants were selected arbitrarily. Questionnaires were spread by the researcher to every participant in different sessions in all of the enterprises. When the returned questionnaires were examined, 33 were invalid. As a result, a total of 232 valid responses were used in the research. The samples included 65 (28%) female and 167 (72%) male volunteers. Participant's ages ranged from 19 to 59 years. Data produced in this study were collected by survey. The survey consisted of four measures. In the first part questions about the demographic characteristics of employees; in the other three parts questions designed to measure stress, performance and emotional intelligence were asked.

##### **3.2.1. Measures**

**Performance:** Performance was measured by a scale taken from Goodman & Svyantek (1999). The measure included 25 items; first 16 items are related to contextual performance while last 9 items are related with task performance. Each item was answered through a seven -point Likert scale ranging from "1=strongly disagree" to "7=strongly agree." In the present study, the Cronbach's a coefficient for each scale was .81 and .83.

**Job Stress:** Emotional expressions were measured by a scale taken from Kawada & Otsuka (2010). The measure included 15 items, each item was answered via five-point Likert scale ranging from "1=strongly disagree" to "5=strongly agree." In the present study, the Cronbach's a coefficient for each scale was .73, .76 and .70.

**Emotional Intelligence:** Emotional expressions were measured by a scale taken from Jain & Sinha (2005) based upon Baron (1997). The measure included 21 items, each item was answered via a five-point Likert scale ranging from “1=strongly disagree” to “5=strongly agree.” In the present study, the Cronbach's a coefficient for the total scale was .83.

### 3.2.2. Confirmatory Factor Analysis

We execute a confirmatory factor analyses to check the loaded factors on the scales. On the performance scale we tested two-factor model, on the emotional intelligence scale we tested five-factor model and at the last on the stress scale we tested three-factor model. Although we have tested five-factor model in emotional intelligence we used a combined one factor named “emotional intelligence” during the analyses. Table-1 presents the confirmatory factor analysis scores. The models fitted with the data.

Table-1: Confirmatory Factor Analysis

Scale/model	$\Delta\chi^2$	Df	$\Delta\chi^2/df$	RMSEA	CFI	RFI	IFI	GFI
Performance	184.30*	142	1.29	0.05	0.96	0.83	0.96	0.84
Emotional	221.40*	148	1.54	0.06	0.93	0.82	0.93	0.82
Stress	676.06*	839	0.80	0.04	0.94	0.85	0.94	0.85

Note. RMSEA = Root Mean Square Error of Approximation; CFI =

### 3.3. Analyses and Results

#### 3.3.1. Correlation Analyses

Mean and standard deviations of all measures and the correlation coefficients between the variables are shown in Table-2. These results indicated correlation between contextual performance and task performance ( $r=.53$ ,  $p<.01$ ), a negative correlation between contextual performance and job control ( $r=-.32$ ,  $p<.01$ ), a negative correlation between contextual performance and job support ( $r=-.52$ ,  $p<.01$ ), a negative correlation between task performance and job demand ( $r=-.22$ ,  $p<.01$ ), a negative correlation between task performance and job support ( $r=-.59$ ,  $p<.01$ ), a positive correlation between task performance and emotional intelligence ( $r=.42$ ,  $p<.01$ ), positive correlations among stress factors, a negative correlation between stress factors and emotional intelligence.

Table-2: Descriptive statistics, reliability scores and correlations

Factor	Mean	SD	1	2	3	4	5	6
1. Contextual Performance	4.65	.62	(.81)					
2. Task Performance	4.32	.72	.53**	(.83)				
3. Job Demand	2.45	.82	.10	-.22*	(.73)			
4. Job Control	1.72	.72	-.32**	-.19	.64**	(.76)		
5. Job Support	2.65	.79	-.52**	-.59**	.43**	.40**	(.70)	
6. Emotional Intelligence	3.20	.93	-.10	.42**	-.62**	-.34**	-.59**	(.83)

Note: Cronbach a coefficients were given on the diagonal in parentheses (N= 232).

\* $p<0,05$  \*\* $p<0,01$

#### 3.3.2. Hierarchical Regression Analysis

To explore whether the independent variables had a significant impact on the dependent variables, hierarchical regression analyzes were conducted. In the regression analysis, in model one, demographic variables (age, working period) were first entered to control their effects, after which job demand, job control and job support were added in step two. After controlling for demographics in model one, it had seen

only working period had significant effect on task performance (working period  $\beta = .34$ ,  $p < .001$ ). In model two all of the stress dimensions had significant negative effect on contextual performance (job demand  $\beta = -.42$ ,  $p < .001$ ; job control  $\beta = -.35$ ,  $p < .001$  and job support  $\beta = -.52$ ,  $p < .001$ ). In the second part, job support had significant negative effect on task performance (job support  $\beta = -.63$   $p < .001$ ). Thus Hypothesis-1: There is a negative relationship between job stress and performance was partially accepted. Table-3 shows the regression analysis results for each performance dimension.

Table-3: Regression Analysis Results

Depended Variable	Contextual Performance		Task Performance	
	Model 1	Model 2	Model 1	Model 2
	$\beta$	$\beta$	$\beta$	$\beta$
Age	.05	.07	-.17	-.09
Working period	-.07	-.17	.34*	.14
Job Demand		-.42***		.10
Job Control		-.35***		-.06
Job Support		-.52***		-.63***
$\Delta R^2$	.001	.33	.06	.46
$\Delta F$	.065	9.883***	2.145	17.187***

\* $p < 0,05$  \*\* $p < 0,01$  \*\*\* $p < 0,001$

### 3.3.3. Mediation Analysis

Baron and Kenny (1986) stated that to have a mediational affect there should be four requisites. First the independent variable stress should affect the mediating variable emotional intelligence; second the independent variable stress should affect the dependent variable performance; third the mediating variable emotional intelligence should affect the dependent variable; fourth after implementing the mediating variable emotional intelligence in the model, the regression coefficient of the independent variable should decreased and the mediating variable emotional intelligence should have a relationship with dependent variable performance. In order to find the mediational affect three-step procedure executed. Table-4 shows the mediation test analyses.

The results in step-1 showed that job demand ( $\beta = -.53$ ,  $p < .001$ ) and job support ( $\beta = -.43$ ,  $p < .001$ ) had a significant negative relations with emotional intelligence.

In step-2 all of the stress dimensions had significant negative effect on contextual performance (job demand  $\beta = -.42$ ,  $p < .001$ ; job control  $\beta = -.35$ ,  $p < .001$  and job support  $\beta = -.52$ ,  $p < .001$ ), while, job support had significant negative effect on task performance (job support  $\beta = -.63$   $p < .001$ ).

In step-3 after including emotional intelligence as a mediator the result showed that there is significance relationship between emotional intelligence and task performance. Emotional intelligence had no relationship with contextual performance. Thus our finding showed that although emotional intelligence had a mediator affect in terms of job support and task performance, it had no mediating role between stress factors and contextual performance. In light of the findings Hypothesis- 2: There is a negative relationship between job stress and emotional intelligence, Hypothesis-3: There is positive relationship between emotional intelligence and performance and Hypothesis-4: Emotional intelligence mediates the relation between job stress and performances were partially accepted.

Table-4: Mediation Test Analysis

Depended Variable	Emotional Intelligence	Contextual Performance	Task Performance
	$\beta$	$\beta$	$\beta$
<b>Step-1</b>			
Age	.18		
Working period	-.21		
Job Demand	-.53***		
Job Control	.18		
Job Support	-.43***		
$\Delta R^2$	.45		
$\Delta F$	19.367***		
<b>Step-2</b>			
Age		.07	-.09
Working period		-.17	.14
Job Demand		.42***	.10
Job Control		-.35***	-.06
Job Support		-.52***	-.63***
$\Delta R^2$		.33	.46
$\Delta F$		9.883***	17.187***
<b>Step-3</b>			
Age		.09	-.11
Working period		-.20	.17
Job Demand		.33**	.16
Job Control		-.29**	-.09
Job Support		-.58***	-.51***
Emotional Intelligence		-.23	.38**
$\Delta R^2$		.34	.48
$\Delta F$		8.763***	14.333***

\*p&lt;0,05 \*\*p&lt;0,01 \*\*\*p&lt;0,001

#### 4. Conclusion

One of the objectives of this study was to contribute the literature of stress, performance and emotional intelligence. The results that we found indicated statistically a negative correlation between stress and performance, a positive correlation between emotional intelligence and task performance. We hoped to find statistically significant correlations between contextual performance and emotional intelligence.

The hierarchical regression analysis displayed that, only working period had a significant positive effect on task performance. Job demand, job control and job support had a significant negative effect on contextual performance. Job support had a significant negative effect on task performance.

The main finding of this study showed that emotional intelligence had a mediator affect in terms of job support and task performance. Emotional intelligence had no mediating role between stress factors and contextual performance.

Without any doubt, these findings are limited by the sample and the assessment instruments used in the present study. This research conducted on small-medium enterprises employees in Turkey; the findings might not be transferable to other organizations. Thus, it is recommended that further researches can be conducted on different sectors and also in different countries for the generalizability of the results. The fact that the present sample is composed of only 232 employees is another drawback of this study.

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