

# Moderating Impact of Job Resources on the Relationship Between Job Stress with Turnover Intention and Creativity

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## Abstract

The purpose of current research was to determine whether some aspects of job resources (e.g., training and reward, supervisor's support and technological support) can moderate the relationship between job stress (e.g., overload, ambiguity and conflict) with turnover intention and creativity. On the basis of the conservation resources approach and job demands-support-performance model, current research investigated whether training, reward, and supervisor's and technological support serve as a buffer to relieve the impact of job stress on turnover intention and creativity. Accordingly, randomly selected of one hundred eighty-seven employees from a public sector organization in Bandarabas, Iran, answered the job stress, turnover intention, creativity and job resources scales. Results suggested that training and technological support moderates the relationship between role conflict and turnover intention. Also, technological support was found to moderate the role ambiguity and overload and creativity relationship.

## Keywords

Job Stress, Turnover Intentions, Creativity, Job Resources, Iran

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## 1. Introduction

Stress is a very antique term which has been used in different forms in previous theories and researches. This term which has a significant contextual overlap with pressure and tension, has been used sometimes as a stimulus and sometimes as a response to external and environmental factors (Lazarus, 1993). Many theorists believe that stress is a sense of being under pressure through factors which make creatures perform behavioral reactions in different levels (psychological and physiological) (Eres & Atanasoska, 2011; İsmail, Yao & Yunus, 2009; Kashefi, 2009). A sense of being under stress can be created through environmental (such as cold, heat, humidity, and noise), physiological (such as pain and wound), social (such as social status and interpersonal relationships), or

psychological factors (such as cognitive appraisal and pessimism) (Yahaya, Yahaya, Arshad, Ismail, Jaalam et al, 2009). It is logical that in many conditions the interaction between mentioned factors and not merely one of them create a context of being under stress. One of specific forms of stress for human is job stress (Mahfood, Pollock & Longmire, 2013).

Job stress in the workplace occurs when a person feels demands he/she is facing in his/her job are beyond his/her abilities and available resources (Babakus, Yavas & Ashill, 2009). Therefore, job stress in most conditions occurs due to the imbalance between demands and resources for individuals in the workplace (Mansoor, Fida, Nasir & Ahmad, 2011). A wide and various range of factors can create stress for individuals in the workplace. Role ambiguity, role conflict, and role overload are the most important of these

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factors yet have been mentioned in workplace-related researches (Savas & Toprak, 2013). Role ambiguity is the lack of clear and precise expectations from an individual in his/her job roles. In the contrast, role conflict includes job demands which performing any of them is in contrast to another (Yahaya et al, 2009; Eres & Atanasoska, 2011).

Finally, role overload is also considered demands and duties which are beyond an individual's ability and job resources (time, skill, ability, and so on). Each of these factors causes eliciting different psychological and physiological responses (Babakus et al, 2009; İsmail et al, 2009). The importance of studying job stress, beyond the effects of this phenomenon on individuals' psychological and physiological health, is related to the positive and negative behavioral outcomes yet mentioned in different researches. The research evidences show that job stress is in relation with different behaviors (e.g., organizational citizenship behaviors, destructive and deviant behaviors, creative behaviors, innovative behaviors, and turnover intention) at work settings. Among above mentioned behaviors, since little research has been done in Iranian workplace about the role of job resources on the relationship between job stress (role ambiguity, role conflict, and role overload) and turnover intention and creativity, current research was carried out with the aim of investigate the relationship between job stress (role ambiguity, role conflict, and role overload) with turnover intention and creativity due to the moderating role of job resources (training, reward, and supervisor's and technological support).

## 2. Literature Review

### 2.1. Job Stress and Turnover Intention

The turnover intention is a kind of obvious and hidden behavioral and attitudinal tendency to change the job and an organization (Bergiel, Nguyen, Clenny & Taylor, 2009; Foong-ming, 2008). Turnover intention occurs from different events in the workplace. When employees of an organization quit their organization and join to another one, they take their knowledge, skills, experiences, and what they have gotten with themselves to another organization (Golparvar & Hosseinzadeh, 2011). This event imposes organizations the expense of absorbing a new employee and the expense of making him ready as a suitable alternative for the one who has quitted that organization (Holtom, Mitchell, Lee & Eberly, 2008). These expenses are sometimes serious enough for organizations to be encountered with numerous problems. That is why over the past few years turnover intention has become appealing subject for employers and shareholders in the organizations (Kuria, Alice & Wanderi, 2012).

This attraction was itself a motivation for researchers to

identify and introduce factors which increase or decrease the turnover intention. Findings of researches of the past few years about factors associated with turnover intention were identifying numerous variables among which some of them are more important than others. The most important factors are job satisfaction, organizational commitment, alternative job opportunity, hope in the future of the job, payment satisfaction, managers and supervisors' leadership styles, and job stress (Albattat & Som, 2013; Bergiel et al, 2009; Foong-ming, 2008; Holtom et al, 2008; Golparvar & Hosseinzadeh, 2011; Kuria et al, 2012). Furthermore, in many performed researches, turnover intention has been introduced among the variables which occur after continuous exposure to job stress and attitudinal and perceptual changes in employees (Albattat & Som, 2013).

Theoretically, job stress (role ambiguity, role conflict, and role overload) make negative cognitive emotional states to be dominant on employees by putting them under the pressure and then through this lead them to make behavioral decisions such as turnover intention (El Shikieri & Musa, 2012; Golparvar & Vaseghi, 2011). Therefore, the relationship between job stress and turnover intention occur through inducing negative emotional states and creating disturbance in employees' cognitive-emotional equilibrium (Golparvar & Hosseinzadeh, 2011; Lee, Gerhart, Weller, Trevor, 2008; Vandenberghe & Tremblay, 2008). On the other hand, based on conservation resources theory, job stress in many conditions is interpreted as a threat for individuals' valuable resources. Undoubtedly, such a threat may stimulate everyone to quit his/her stressful condition (Martin, 2011; Shaw, 2011; Qureshi, Iftikhar, Abbas, Hassan, Khan et al, 2013). To support this viewpoint, relatively rich research evidences suggest that factors such as role ambiguity, role conflict, and role overload lead employees to turnover intention (Golparvar & Hosseinzadeh, 2011).

### 2.2. Job Stress and Creativity

Employees' creative behaviors have a vital importance for any organization because creative and innovative employees can play a decisive role in success of the organization and achieving its goals. Creativity in the workplace can be included recognitions and innovative behaviors which are beyond the framework of individuals' routine behaviors and are in terms of new methods of performing business affairs, innovative use of available equipment and facilities, and finding solutions for issues which are difficult for others (Aryee, Zhou, Sun & Lo, 2009; de Jesus, Rus, Lens & Imaginário, 2013; Prabhu, Sutton & Sauser, 2008; Tierney, Farmer & Graen, 1999). It is believed that creativity can be considered as a form of positive deviant behaviors (Appelbaum, Iaconi & Matousek, 2007). So far, considerable

research has been done about the relationship between job stress and creativity (Byron, Khazanchi & Nazarian, 2010; Eisenberg & Thompson, 2011; Govindarajan, 2012; Ma, 2009; Probst, Stewart, Gruys & Tierney, 2007; Runco, 2007; Sacramento, Fay & West, 2013). Looking at some results of these studies which have been used in meta-analysis by Byron *et al* (2010) shows that there have not been reported the same results in these studies.

More clearly, in some studies it has been reported a positive relationship between stress and creativity, a negative relationship between some others, and curvilinear relationship in other cases (Ma, 2009; Byron *et al*, 2010). In some theorists' belief, this difference in results is because the stress nature and a fundamental theory used in these studies are different from each other (Ma, 2009; Byron *et al*, 2010). Theoretically, it can be differentiated between challenging stress and hindrance stress. Challenging stress includes stressors which individuals consider them as opportunities to grow and enhance their skills and abilities. Increased responsibilities and time pressure are examples of this stress. In the contrast, hindrance stress is a type of stress that individuals evaluate them destructive and harmful for growing and enhancing their skills and abilities. Role ambiguity, role conflict, and role overload are the main examples of hindrance stress (In this case, there is no consensus among theorists) (Eisenberg & Thompson, 2011). In this research it is focused on ambiguity, conflict, and overload.

Available research evidences show that if ambiguity, conflict, and overload are high, they can provide a context for weakening creativity (Byron, Khazanchi & Nazarian, 2010; Eisenberg & Thompson, 2011; Govindarajan, 2012; Ma, 2009; Probst *et al*, 2007; Runco, 2007; Sacramento *et al*, 2013). Through different theoretical approaches such as cognitive resources theory and activation approach and according to the demand-burnout-performance approach, job stress provides a context for creating fatigue, burnout, and disability in individuals and through this it weakens employees' creativity level by limiting their cognitive processing abilities (Ma, 2009; Byron *et al*, 2010). Theoretically, creativity requires capability, sense of energy, and positive emotional states (Probst *et al*, 2007; Runco, 2007). That is why when the level of role ambiguity, role conflict, and role overload is high, power, resources, vitality, and positive emotional states are weakened. This can lead employees to show less tendency to perform creative behaviors.

### **2.3. The Role of job Resources in the Relationship Between Job Stress and Turnover Intention and Creativity**

Everyone in his/her workplace has different resources to respond his/her job demands which in terminology are called job resources. Training, reward, and supervisor's and

technological support are the most important job resources (Babakus *et al*, 2009; Bakker, Demerouti & Euwema, 2005). Each of these four factors can help individuals to respond their own job demands through certain ways. For instance, training through providing the possibility of using more skills, rewarding through making positive emotional states and reinforcing individuals' job attitude (such as satisfaction and commitment), and supporting through helping can provide physical, social, and psychological resources individuals require (Babakus *et al*, 2009; Coetzee, & Bergh, 2009; Coetzee & de Villiers, 2010). Accordingly, in this research it has been theoretically considered that support and training can potentially moderate the relationship between ambiguity, conflict, and overload and turnover intention and creativity. In support of this idea, there are considerable studies which in them indicated that there are negative significant relationship between job stress (role overload and ambiguity and role conflict) and training and support (Coetzee & Rothmann, 2007; Crawford, LePine & Rich, 2010; Hakanen, Schaufeli & Ahola, 2008; Martinussen, Richardsen & Burke, 2007; van den Tooren, de Jonge, Vlerick, Daniels & van de Ven, 2011).

On the other hand, according to the job demand-resources model, training and support are among coping resources which in high job stress weaken the effects of stress on individuals (Van de Ven, 2011; Van Iersel, 2013). For instance, Daniels & Harris (2005) showed that the more individuals have the possibility to use more problem-oriented methods in the workplace, the less negative emotions they experience. In this regard, it can be said that since ambiguity, conflict, and overload can create negative emotional states and through that they can provide a context to reinforce turnover intention and weaken creativity, therefore training and support can also create a context for moderating the relationship between job stress and turnover intention and creativity by providing a context and an opportunity for using problem-oriented coping methods. To support this idea, the research of Jonge, Le Blance, Peeters and Noordam (2008) showed that when emotional and cognitive resources (such as supporting different dimensions along with help and training) are high, they will increase working and behavioral motivations which are inhibitors of turnover intention and facilitators of creativity.

### **2.4. Research Conceptual Model**

Based on what was expressed, this research was focused on the relationship between role ambiguity, role conflict, and role overload and the turnover intention and creativity and then it was focused on the moderating role of training, supervisor's support, and technological support on mentioned relationship. The reason of choosing turnover intention and

creativity as two behavioral outcomes in this research was that especially in Iran, less researches have been done about turnover intention and creativity than other behavioral outcomes (deviant and citizenship behaviors) in the framework of models such as job demand-resources model. However, turnover intention and creativity are selected together so that positive and negative behavioral outcomes be able to exist both in this research. If there are any differences in the moderating role of job resources in the relationship between components of job stress and turnover intention and creativity, this issue will reveal that. According to what was expressed, the theoretical model of this research is provided in figure 1.

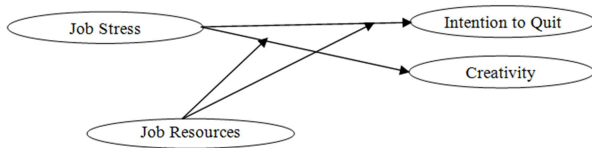


Figure 1. Theoretical model of this research.

## 2.5. Research Hypotheses

*H1.* Job stress is positively related to turnover intention and negatively related to creativity.

*H2.* Job resources is negatively related to turnover intention and positively related to creativity.

*H3.* Job resources moderates the relationship between job stress and turnover intention.

*H4.* Job resources moderates the relationship between job stress and creativity.

## 3. Method

*Participants:* A total of two hundred questionnaires were distributed randomly (on the basis of employees list) to individual employees at different sections of a public-sector organization in Bandarabbas, Iran. After gathering distributed surveys, one hundred eighty-seven usable surveys (93.5% response rate) were returned. Regarding demographic characteristics of sample, thirteen respondents (6.4%) were female and one hundred and seventy-four of them (93.6%) were male. This proportion of male and female in sample was equal to proportion of male and female at population. Majority of respondents have diploma (more than 60%) or university degree up to bachelor degree (more than 30%), and about 71.6% was married and the rest of them were single (29/4%). In terms of the job position, 88.1% of the sample was in the non-managerial position and the rest of them (11.9%) were in the managerial position. The average of the respondents' age was 30.89 years (and standard deviation=5.58) and the mean of their tenure was 7 years

(and standard deviation=4.97). A comparison of the sample demographic profile to the organization information (records) revealed that the sample was representative of the population.

## 4. Measures

*Job stress:* Nine items adapted from Babakus et al (2009) was applied to assess three aspects of job stress (overload, conflict and ambiguity). This set of nine items was validated in Iranian workplaces in a previous study (Golparvar, Adibi & Mosahebi, 2011). It is be noted that, Iranian version of this scale have two subscales (first subscale= role overload and ambiguity with four items, and second subscale= role conflict with three items). Respondents were asked to indicate how often they experience role overload and ambiguity, and role conflict on their jobs. Responses were rated on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item of this scale is: In this organization, I know what is expected from me (reverse scoring- role overload and ambiguity). The internal consistency (Cronbach's alpha) of role overload and ambiguity, and role conflict in present research was 0.7 and 0.6 respectively.

*Turnover intention:* The 4-item scale of turnover intention adopted from Babakus et al (2006) was used for assessment of the tendency of participants for quitting their jobs or organization. Golparvar et al (2011) translated and validated this scale in Iran. A sample item is: I think a lot about leaving this organization. Golparvar et al (2011) have reported the construct validity (on the basis of exploratory factor analysis) and Cronbach's alpha ( $\alpha = 0.8$ ) of this questionnaire. The internal consistency (Cronbach's alpha) of this questionnaire in present study was 0.83.

*Creativity:* Nine items adapted from Tierney et al (1999) was applied to assess creativity. This scale was translated and validated in Iranian work setting in previous studies (Golparvar, Kamkar & Javadian, 2012). Respondents were asked to indicate how often they engaged in activities such as come up with creative solutions to problems, in 7-point scale, ranging from 1 (never) to 7 (always). Sample item of this scale is: I identified opportunities for new products/processes. Golparvar et al (2012) have reported the construct validity (on the basis of exploratory factor analysis) and Cronbach's alpha ( $\alpha = 0.87$ ) of this questionnaire. The internal consistency (Cronbach's alpha) of this questionnaire in present study was 0.85.

*Job resources:* Job resources dimensions (training and reward, supervisor's support and technological support) was assessed using seven, four and four items respectively adopted from Babakus et al (2009). This scale was validated in Iranian workplaces in a previous study (Golparvar et al, 2011). An



sample item is: In this organization enough budget is devoted for training (training and reward subscale). The Cronbach's alpha coefficient for training and reward, supervisor's support and technological support subscales was 0.8, 0.8 and 0.79 respectively.

Data were analyzed by Statistical Package for Social Science (SPSS-15). Box plot revealed that outlier and extreme values are not problematic in current research. Out of the total responses, missing values were less than 0.2 percent, which replaced with the mean of variables in database. To prevent problems of multi-collineality, hierarchical moderated regression analysis were conducted with the centered variables (Aiken & West, 1991).

### 5. Results

Correlations, means and standard deviations of variables are presented in Table 1.

As shown in Table 1, all correlations between research variables are statistically significant ( $p < .01$ ). There is a positive significant relationship between role overload and ambiguity and turnover intention ( $r = .38, p < .01$ ), and there is

a negative significant relationship between role overload and ambiguity and creativity ( $r = -.58, p < .01$ ). Role conflict also has a significant and positive relationship with turnover intention ( $r = .33, p < .01$ ), but has a significant and negative relationship with creativity ( $r = -.17, p < .01$ ). Training and reward, supervisor's support and technological support has a significant and negative relationship with turnover intention ( $r = -.26, r = -.52, r = -.22, p < .01$  respectively), but has a significant and positive relationship with creativity ( $r = 0.3 r = .46, r = .28, p < .01$  respectively). Also training and reward, supervisor's support and technological support has a significant and negative relationship with role overload and ambiguity ( $r = -.33, r = -.52, r = -.31, p < .01$  respectively), and with role conflict ( $r = -.29, r = -.3, r = -.27, p < .01$  respectively). On the basis of presented results on table 1, H1 (job stress is positively related to turnover intention and negatively related to creativity), and H2 (job resources is negatively related to turnover intention and positively related to creativity) were completely verified. Moderated hierarchical regression analysis was used to test the H3 and H4. In Table 2, the result of hierarchical moderated regression analysis is provided for turnover intention.

**Table 1.** Mean, standard deviation and inter-correlations for study variables.

	M	SD	1	2	3	4	5	6	7
training and reward	2.02	.53	.8						
supervisor's support	3.2	.8	.6**	.8					
technological support	2.78	.76	.67**	.57**	.79				
role overload and ambiguity	3.24	.7	-.33**	-.52**	-.31**	.7			
role conflict	2.99	.69	-.29**	-.3**	-.27**	.24**	.6		
turnover intention	2.69	.83	-.26**	-.52**	-.22**	.38**	.33**	.83	
creativity	3.52	.85	.3**	.46**	.28**	-.58**	-.17**	-.3**	.85

Note: \*\*  $p < .01$ , Internal consistency reliabilities are reported on the diagonal.

**Table 2.** Hierarchical regression analysis of job stress, job resources and turnover intention.

	Turnover intention		
	Model1	Model2	Model3
	$\beta$	$\beta$	$\beta$
Role Overload and Ambiguity (ROA)	.32**	.13	.19*
Role Conflict (RC)	.25	.19*	.2**
Training and Reward (TR)	-	.06	.11
Supervisor's Support (SS)	-	-.48**	-.41**
Technological Support (TS)	-	.12	.01
ROA × TR	-	-	-.08
RC × TR	-	-	.22*
ROA × SS	-	-	-.19
RC × SS	-	-	-.11
ROA × TS	-	-	.2
RC × TS	-	-	-.19*
R <sup>2</sup> or $\Delta R^2$	.205**	.127**	.044*
F or $\Delta F$	23.74**	11.44**	2.03*

Note: \*  $p < .05$  \*\*  $p < .01$ , Model1 = main effects of role overload and ambiguity (ROA) and role conflict (RC), Model2 = main effect of job resources dimensions, and Model3 = interactive effects of role overload and ambiguity (ROA) and role conflict (RC), and job resources dimensions.

In Table 2, a three-stage hierarchical moderated regression analysis was used to test the H3 (job resources moderates the relationship between job stress and turnover intention). In Model 1, role overload and ambiguity (ROA) and role conflict (RC) were entered as predictors of turnover intention. In Model 2, the training and reward (TR), supervisor's support (SS) and technological support (TS) were entered as a predictor of turnover intention. In Model 3, the multiplicative interaction term was entered. That is the two-way, cross-product terms between role overload and ambiguity (ROA), role conflict (RC) and the training and reward (TR), supervisor's support (SS) and technological support (TS) were entered as predictors of turnover intention. According to Aiken and West's (1991) recommendation for moderated regression analysis with multiplicative interaction terms, all the variables centralized and then entered in the regression equation. The H3 was tested by examining the significance of the interaction terms and the F-tests associated with the changes in the multiple squared correlation coefficients ( $\Delta R^2$ ) of the equation in the Model 3.

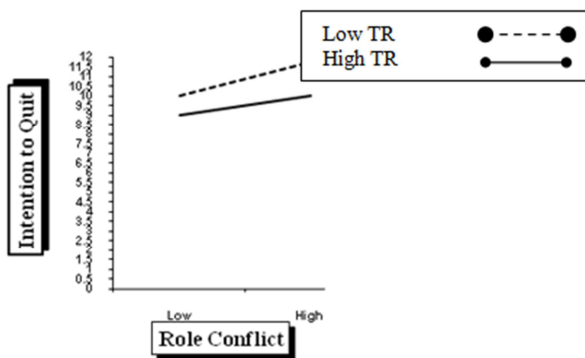


Figure 2. Interaction of training and reward (TR) and role conflict (RC) for turnover intention.

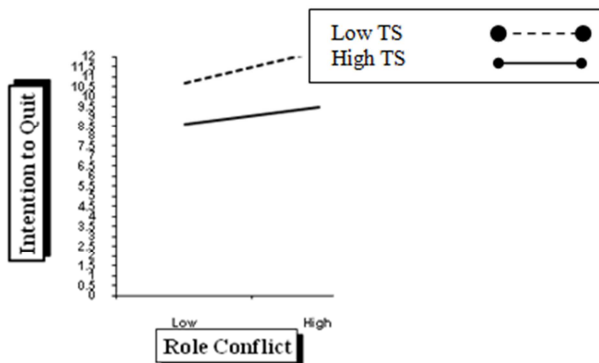


Figure 3. Interaction of technological support (TS) and role conflict (RC) for turnover intention.

The results indicated that, role overload and ambiguity ( $\beta = .32$ , and  $.19$  for model 1 and 3,  $p < .01$ ), and role conflict ( $\beta = .19$ , and  $.2$  for model 2 and 3  $p < .01$ ) has significant impact

on turnover intention. Among three dimensions of job resources, supervisor's support ( $\beta = -.48$ , and  $-.41$  for model 2 and 3  $p < .01$ ) has significant impact on turnover intention. In model 3, interaction of role conflict (RC)  $\times$  training and reward (TR) term along with role conflict (RC)  $\times$  technological support (TS), explained a significant incremental portion of variance for turnover intention ( $\Delta R^2 = .04$ ,  $p < .01$ ). To clarify the form of the interaction, the equation at the high and low level of training and reward (TR) and technological support (TS) was computed. Following the method described by Aiken and West (1991), equations predicting turnover intention from role conflict were derived for low and high levels of training and reward (TR) and technological support (TS) (+ 1SD, and - 1SD). Figure 2 and 3 present the result of simple slope analysis for prediction of turnover intention at high and low levels of training and reward and technological support.

As it can be seen in Figure 2, in low training and reward group, there is a stronger positive relationship between role conflict and turnover intention ( $\beta = .2$ ,  $p < .05$ ), rather than in high training and reward group ( $\beta = .11$ ,  $n.s$ ).

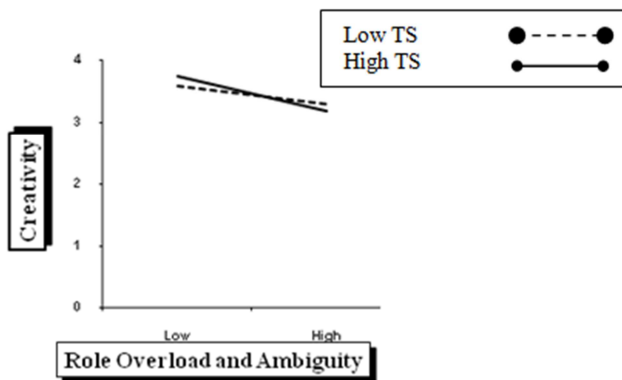
As it can be seen in Figure 3, in low technological support group, there is a stronger positive relationship between role conflict and turnover intention ( $\beta = .22$ ,  $p < .05$ ), rather than in high technological support group ( $\beta = .09$ ,  $n.s$ ). The results presented in Table 2 and Figure 2 and 3, confirms H3 partially. Table 3 presents the result of the hierarchical moderated regression analysis for creativity.

Table 3. Hierarchical regression analysis of job stress, job resources and creativity.

	Creativity		
	Model1	Model2	Model3
	$\beta$	$\beta$	$\beta$
Role Overload and Ambiguity (ROA)	-.58**	-.48**	-.48**
Role Conflict (RC)	-.03	-.02	-.03
Training and Reward (TR)	-	.02	.002
Supervisor's Support (SS)	-	.19*	.25**
Technological Support (TS)	-	.02	-.04
ROA $\times$ TR	-	-	-.15
RC $\times$ TR	-	-	-.05
ROA $\times$ SS	-	-	-.07
RC $\times$ SS	-	-	.01
ROA $\times$ TS	-	-	-.35**
RC $\times$ TS	-	-	.11
R <sup>2</sup> or $\Delta R^2$	.343**	.033**	.043*
F or $\Delta F$	48.07**	3.22**	2.15*

Note: \*  $p < .05$  \*\*  $p < .01$ , Model1 = main effects of role overload and ambiguity (ROA) and role conflict (RC), Model2 = main effect of job resources dimensions, and Model3 = interactive effects of role overload and ambiguity (ROA) and role conflict (RC), and job resources dimensions.

In Table 3, a three-stage hierarchical moderated regression analysis was used to test the H4 (job resources moderates the relationship between job stress and creativity). The results indicated that, role overload and ambiguity ( $\beta = -.58, -.48$  and  $-.48$  for model 1 to 3,  $p < .01$ ) has significant impact on creativity. Among three dimensions of job resources, supervisor's support ( $\beta = .19, .25$  for model 2 and 3,  $p < .05$  and  $p < .01$ ) has significant impact on creativity. In model 3, interaction of role overload and ambiguity (ROA)  $\times$  technological support (TS) term explained a significant incremental portion of variance for creativity ( $\Delta R^2 = .043$ ,  $p < .05$ ). To clarify the form of the interaction, the equation at the high and low level of technological support (TS) was computed. Following the method described by Aiken and West (1991), equations predicting creativity from role conflict were derived for low and high levels of technological support (TS) (+ 1SD, and- 1SD). Figure 4 present the result of simple slope analysis for prediction of creativity at high and low levels of technological support.



**Figure 4.** Interaction of technological support (TS) and role overload and ambiguity (ROA) for creativity.

As it can be seen in Figure 4, in high technological support group, there is a stronger negative relationship between role overload and ambiguity and creativity ( $\beta = .25$ ,  $p < .05$ ), rather than in low technological support group ( $\beta = .11$ , *n.s.*). The results presented in Table 3 and Figure 4, confirms H4 partially.

## 6. Discussion

This research was conducted with the purpose of examining the role of job resources (training and reward, supervisor's support, and technological support) in the relationship between ambiguity, conflict, and overload with turnover intention and creativity. This study is among the first researches in Iran in which the moderating role of job resources has been investigated on the relationship between ambiguity, conflict, and overload with turnover intention and creativity. For this reason, the findings can have important implications for developing countries. In the simple

relationship, evidences of this research supported some relationships: the negative relationship between ambiguity, conflict, and overload and training/reward, support (supervisor and technological), and creativity, the positive relationship between training/reward, support (supervisor and technological), and creativity, the negative relationship between training/reward, support (supervisor and technological), and turnover intention, and the positive relationship between ambiguity, conflict, and overload and turnover intention. The relationship between ambiguity, conflict, and overload and turnover intention, creativity, and job resources has an alignment with others' research findings and opinions (Albattat & Som, 2013; Bergiel *et al.*, 2009; Byron, Khazanchi & Nazarian, 2010; Eisenberg & Thompson, 2011; Foong-ming, 2008; Govindarajan, 2012; Golparvar & Hosseinzadeh, 2011; Holtom *et al.*, 2008; Kuria *et al.*, 2012; Ma, 2009; Probst *et al.*, 2007; Runco, 2007; Sacramento *et al.*, 2013). Based on findings of this research, it can be said that ambiguity, conflict, and overload put pressure on individuals and then provide a context for increasing turnover intention by creating cognitive emotional imbalance (toward experiencing negative emotions) and finally decrease creativity level. In the contrast, training/reward and support (supervisor and technological) as supports which are used for responding job demands make a negative relationship with turnover intention and positive relationship with creativity very well.

The positive relationship between training/reward and support (supervisor and technological) with creativity and the negative relationship between them and turnover intention occur because these two factors (training/reward and support) increase the level of capability, perceived support, vitality, and a sense of energy in individuals, and therefore they provide the possibility of involving individuals in creative behaviors and the lack of tendency to turnover intention by creating positive emotional states. On the other hand, training/reward and support (supervisor and technological) are main supportive resources for individuals in social and psychological level. Thus, when there is training and technological support, individuals will gain necessary psycho-social power to cope with ambiguity, conflict, and overload in the workplace. Based on job demand-resources approach, training/reward and support (supervisor and technological) lead employees toward more creativity and less turnover intention by creating social and psychological support for them.

In addition to the simple relationships between above mentioned variables in this research, the moderating role of training/reward and technological support for the relationship between turnover intentions and role conflict and also the relationship between role ambiguity and role overload and

creativity have been found in three cases. Based on obtained results (Table 2 & 3), when training/reward and technological support are high, role conflict will increase the turnover intention. This finding theoretically is explainable when employees are under pressure by role conflict, due to the lack of available working technological support and an appropriate training, they will not be able to cope with role conflict. Therefore, they prefer to decrease the pressure by quitting the situation.

It is natural that if training/reward and technological support are increased, the ability of coping with role conflict will be increased, and therefore the turnover intention will be decreased or at least its level will not significantly increased. The next finding which should be noted seriously is that in high technological support, with increasing role ambiguity and role overload, employees creativity level will show more severe reduction. Perhaps this finding comes from this reason that when role ambiguity and role overload are increased and available working technological support and equipment are also high, an individual has not enough opportunity to perform creative behaviors or ideas. It happens because his available facilities will impose him/her defined manners on one hand and ambiguity and overload do not give him/her an opportunity to create and test new manners and ideas on the other. This finding is among cases that has taken less consideration in job demand-resources theoretical approaches.

On the other hand, based on the approach of compensation of non-equilibrium stress (Golparvar & Hosseinzadeh, 2011), stressors such as ambiguity, conflict, and overload make individuals having behavioral, cognitive, and emotional non-equilibrium. This non-equilibrium has a motivational nature. So that individuals either in behavioral or in cognitive way try to restore their missed equilibrium (Golparvar et al, 2012). This retrieval can show itself in one form of turnover intention increase or creativity reduction. Yet, according to this approach several conditional and individual variables can moderate this relationship between job stressors and positive and negative behaviors. Training/reward and support (supervisor and technological) are one of the potential moderating variables in this relationship. Indeed, variables such as training and support are among factors decrease the intensity of created non-equilibrium by weakening pressure resource and provide a context for behavioral controls. The next finding which should be noted is inability to moderate supervisor's support in the relationship between ambiguity, conflict, and overload and turnover intention and creativity. Based on job demand-resources model, supervisor's support is a psycho-social resource for employees in the workplace and can help them to manage their job stressors better. So it was expected that supervisor's support could also moderate the relationships between some job stress dimensions used in

this research and turnover intention and creativity. However, this expectation was not confirmed. This finding may be due to supervisor's support losing its moderating role in the sample of this research study before training and technological support. On the other hand, the means of training/reward and support (supervisor and technological) in this study are less than their questions' in a five-point scale (14.12 and 11.12 and than 15 and 12, respectively). But supervisor's support has higher mean in a used scale (12.83 than 12). Due to the more importance they have, maybe this situation has caused training/reward and technological support, rather than supervisor's support, to represent the moderating role in the relationship between role ambiguity, role conflict, and role overload and turnover intention and creativity.

## 7. Conclusion

The findings of this study have important applications in the real world, especially for developing countries, such as Iran. First, job stress (role ambiguity, role conflict, and role overload) have relatively high negative impact on creativity and conversely high positive impact on turnover intention. Second, job resources such as training and reward and technological support have a moderating impact on the relationship between role conflict and turnover intention and on the relationship between role overload and ambiguity and creativity. These findings indicate that public sector organizations in developing countries could decrease turnover intention and increase creativity of their employees by decreasing job stress (role ambiguity, role conflict, and role overload). Furthermore, the findings of current research indicate that public sector organizations in developing countries could decrease the relationship between role conflict and turnover intention by increasing training and reward and technological support. Also the results of this research have some theoretical implications. First, the interaction of job resources (training/reward and support (supervisor and technological)) with job stressors for influencing on behavioral outcomes are likely interactions dependent on outcome variable. It means that when outcome variable requires a function beyond usual and conventional procedures (e.g. creativity), resources such as technological support can decrease outcome variable if ambiguity and overload are increased. But if outcome variable is a variable related to ordinary behavioral decision-making (e.g. turnover intention), technological support will not play a role in the relationship between ambiguity and overload and outcome variable. Second, for applying intervention in the relationship between each job stressors and turnover intention and creativity in the real world setting it is necessary to follow different methods. For instance, in order to prevent outcome



variable from increasing turnover intention, reinforcing working facilities and technologies and scheduled training/reward can be the keys for solving problems. To reinforce training/reward, running training courses for managers and supervisors about how to evaluate role conflict and also providing feedbacks based on appropriate appreciation to employees can be useful. On the other hand, employees' educational needs can be identified through periodical assessments and their coping abilities for role conflict can be increased through appropriate educational programs. But for preventing ambiguity and overload from decreasing creativity, it is necessary to decrease employees' ambiguity and overload level by preparing explicit description of duties and working planning. This will prevent this variable (ambiguity and overload) to decrease creativity in an interaction with technological support.

## 8. Limitations

In the end, it is necessary to pay enough attention to the research limitations. The first limitation is that this research's results come from a public sector organization in Iran. Therefore, caution is required in generalizing these results to the private sector organizations. The second limitation is that achieved relationships in this research are not cause and effect relationships. So, it is not logical to use cause and effect perceptions in interpreting the results. Finally, the third limitation is that assessments of turnover intention and creativity in this research were based on self-report. Orientations of future researches about training/reward and support can be focused on determining the effect of each of these variables in the field of employees' psycho-social abilities and the role of these recent variables on turnover intention and creativity.

## References

- [1] Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage publications, Newbury Park, CA.
- [2] Albattat, A. R. S., & Som, A. P. M. (2013). Employee dissatisfaction and turnover crises in the Malaysian hospitality industry. *International Journal of Business and Management*, 8(5), 62-71.
- [3] Aryee, S., Zhou, Q., Sun, L. Y., & Lo, S. (2009). Perceptions of politics, intrinsic motivation and creative performance: Evidence from the service sector. In *Academy of Management Annual Meeting Proceedings* (pp. 1-6).
- [4] Appelbaum, S.H., Iaconi, G.D., & Matousek, A. (2007). Positive and negative deviant workplace behaviors: causes, impacts, and solutions. *Corporate Governance*, 7(5), 586-598.
- [5] Babakus, E., Yavas, U., & Ashill, N.J. (2009). The role of customer orientation as a moderator of the job demand-burnout-performance relationship: A surface-level trait perspective. *Journal of Retailing*, 85(4), 480-492.
- [6] Bakker, A.B., Demerouti, E., & Euwema, M.C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10(2), 170-180.
- [7] Bergiel, E.B., Nguyen, V.Q., Clenny, B.F., & Taylor, G.S. (2009). Human resource practices, job embeddedness and intention to quit. *Management Resource News*, 32(3), 205-219.
- [8] Byron, K., Khazanchi, S., & Nazarian, D. (2010). The relationship between stressors and creativity: A meta-analysis examining competing theoretical models. *Journal of Applied Psychology*, 95(1), 201-212.
- [9] Coetzee, M., & Bergh, Z.C. (2009). Psychological career resources and subjective work experiences of working adults: an exploratory study. *Southern African Business Review*, 13(2), 1-31.
- [10] Coetzee, C.F., & Rothmann, S. (2007). Job demands, job resources and work engagement of employees in a manufacturing organization. *Southern African Business Review*, 11(1), 17-32.
- [11] Coetzee, M., & de Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1), 27-57.
- [12] Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834-848.
- [13] Daniels, K., & Harris, C. (2005). A daily diary study of coping in the context of the job demands-control-support model. *Journal of Vocational Behavior*, 66(2), 219-237.
- [14] de Jesus, S. N., Rus, C. L., Lens, W., & Imaginário, S. (2013). Intrinsic motivation and creativity related to product: A meta-analysis of the studies published between 1990-2010. *Creativity Research Journal*, 25(1), 80-84.
- [15] Eisenberg, J., & Thompson, W.F. (2011). The effects of competition on improvisers' motivation, stress, and creative performance. *Creativity Research Journal*, 23(2), 129-136.
- [16] El Shikieri, A. B., & Musa, H. A. (2012). Factors associated with occupational stress and their effects on organizational performance in a Sudanese university. *Creative Education*, 3(1), 134-144.
- [17] Eres, F., & Atanasoska, T. (2011). Occupational stress of teachers: A comparative study between Turkey and Macedonia. *International Journal of Humanities and Social Science*, 1(7), 59-65.
- [18] Foong-ming, T. (2008). Linking career development practices to turnover intention: The mediator of perceived organizational support. *Journal of Business and Public Affairs*, 2(1), 1-20.
- [19] Golparvar, M., Adibi, Z., Mosahebi, M.R. (2011). The relationship between job demands with job exhaustion: The view to the role of job resources from viewpoint of interactions model. 2nd National Biannual Congress on Industrial and Organizational Psychology in Iran, Islamic Azad University, Khorasgan Branch (Esfahan), 22 and 23 February 2011.

- [20] Golparvar, M., & Hosseinzadeh, K.H. (2011). Model of relation between person – job none fit with emotional exhaustion and desire to leave work: Evidence for the stress – non equilibrium – compensation model. *Quarterly Journal of Applied Psychology*, 20(1/17), 41-56.
- [21] Golparvar, M., Kamkar, M., & Javadian, Z. (2012). Moderating effects of job stress in emotional exhaustion and feeling of energy relationships with positive and negative behavioral outcomes: Introducing the job stress multiple functions approach. *International Journal of Psychological Studies*, 4(4), 99-112.
- [22] Golparvar, M., & Vaseghi, Z.(2011). Mediating role of energy at work in connection between stress with creativity, organizational citizenship behaviors and deviant behaviors. *Journal of Psychological Models and Approaches*, 1(3), 1 – 15.
- [23] Govindarajan, S. (2012). Effects of stress and co-rumination on creativity and performance. Master's Theses; Paper 4132. [http://scholarworks.sjsu.edu/etd\\_theses](http://scholarworks.sjsu.edu/etd_theses).
- [24] Hakanen, J.J., Schaufeli, W.B., & Ahola, K. (2008). The Job Demands-Resources Model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work and Stress: An International Journal of Work, Health and Organizations*, 22(3), 224-241.
- [25] Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M.B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals*, 2(1), 231-274.
- [26] İsmail, A., Yao, A., & Yunus, N. K. Y. (2009). Relationship between occupational stress and job satisfaction: An empirical study in Malaysia. *The Romanian Economic Journal*, 34(4), 3-27.
- [27] Jonge, J. D., Le Blanc, P. M., Peeters, M. C. W., & Noordam, H. (2008). Emotional job demands and the role of matching job resources: A cross-sectional survey study among health care workers. *International Journal of Nursing Studies*, 45(10), 1460-1469.
- [28] Kashefi, M. (2009). Job satisfaction and/or job stress: The psychological consequences of working in high performance work organizations. *Current Sociology*, 57(6), 809-828.
- [29] Kuria, S., Alice, O., & Wanderi, P. (2012). Assessment of causes of labor turnover in three and five star-rated hotel in Kenya. *International Journal of Business and Social Science*, 3(15), 311-317.
- [30] Lee, T. H., Gerhart, B., Weller, I., Trevor, C. O. (2008). Understanding voluntary turnover: Path - specific job satisfaction effects and the importance of unsolicited job offers. *Academy of Management Journal*, 51(4), 651- 671.
- [31] Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44(1), 1-22.
- [32] Ma, H. H. (2009). The effect size of variables associated with creativity: A meta-analysis. *Creativity Research Journal*, 21(1), 30–42.
- [33] Mahfood, V. W., Pollock, W., & Longmire, D. (2013). Leave it at the gate: job stress and satisfaction in correctional staff. *Criminal Justice Studies: A Critical Journal of Crime, Law and Society*, 26(3), 308-325.
- [34] Mansoor, M., Fida, S., Nasir, S., Ahmad, Z. (2011). The impact of job stress on employee job satisfaction. A study on telecommunication sector of Pakistan. *Journal of Business Studies Quarterly*, 2(3), 50-56.
- [35] Martin, M. J. (2011). Influence of human resource practices on employee intention to quit. Unpublished Doctoral Dissertation In Agricultural and Extension Education, Virginia Polytechnic Institute and State University.
- [36] Martinusen, M., Richardsen, A. M., & Burke, R.J. (2007). Job demands, job resources, and burnout among police officers. *Journal of Criminal justice*, 35(3), 239-249.
- [37] Prabhu, V., Sutton, C., & Sauser, W. (2008). Creativity and certain personality traits: Understanding the mediating effect of intrinsic motivation. *Creativity Research Journal*, 20(1), 53-66.
- [38] Probst, T. M., Stewart, S. M., Gruys, M. L., & Tierney, B. W. (2007). Productivity, counter-productivity and creativity: The ups and downs of job insecurity. *Journal of Occupational and Organizational Psychology*, 80(3), 479–497.
- [39] Qureshi, M.I., Iftikhar, M., Abbas, S. G., Hassan, U., Khan, K., & Zaman, K. (2013). Relationship between job stress, workload, environment and employees turnover intentions: What we know, what should we know. *World Applied Sciences Journal*, 23(6), 764-770.
- [40] Runco, M. A. (2007). Creativity, theories and themes: Research, development, and practice. London: Elsevier Academic Press.
- [41] Savas, A. C., & Toprak, M. (2013). Mediation effect of job stress in the relationship between organizational health and job satisfaction. *Ozean Journal of Social Sciences*, 6(1), 1-11.
- [42] Sacramento, C. A., Fay, F., & West, M. A. (2013). Workplace duties or opportunities? Challenge stressors, regulatory focus, and creativity. *Organizational Behavior and Human Decision Processes*, 121(2), 141-157.
- [43] Shaw, J. (2011). Turnover rates and organizational performance: Review, critique, and research agenda. *Organizational Psychology Review*, 1(3), 187-213.
- [44] Tierney, P., Farmer, S.M., & Graen, G.B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationship. *Personnel Psychology*, 52(3), 591-620.
- [45] Vandenberghe, C., & Tremblay, M. (2008). The role of pay satisfaction and organizational commitment in turnover intentions: A two-sample study. *Journal of Business and Psychology*, 22(3), 275-286.
- [46] Van den Tooren, M., de Jonge, J., Vlerick, P., Daniels, K., & van de Ven, B. (2011). Job resources and matching active coping styles as moderators of the longitudinal relation between job demands and job strain. *International Journal of Behavioral Medicine*, 18(4), 373-383.
- [47] Van de Ven, B. (2011). Psychosocial well-being of employees in the technology sector: The interplay of job demands and job resources. Unpublished Doctoral Dissertation, Ghent University, Faculty of Psychology and Educational Sciences.
- [48] Van Iersel, M. (2013). The stress-buffering effect of job resources and the moderating role of proactive personality on the relationship between job demands and emotional exhaustion. Unpublished Master Thesis in Social Psychology, Tilburg University.

- [49] Yahaya, A., Yahaya, N., Arshad, K., Ismail, J., Jaalam S., & Zakariya, Z. (2009). Occupational stress and its effects towards the organization management. *Journal of Social Sciences*, 5(4), 390-397.