

## **Job Stress, Job Performance and Organizational Commitment in a Multinational Company: An Empirical Study in two Countries**

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### **Abstract**

*This study examined the role of organizational commitment in the relationship of job stress and job performance among employees working in a large North American based multinational corporation in Malaysia (N=305) and Pakistan (N=325). Data were collected by means of a structured questionnaire from employees on job stress and organizational commitment. Job performance data were obtained from the company's files in both countries. Four types of relationships were proposed between job stress and job performance; positive linear, negative linear, U-shaped/curvilinear, and no relationship. In both countries, data clearly supported the negative linear relationship between stress and performance than other types of relationship. Hierarchical multiple regression analysis partially supported the role of organizational commitment as a moderator of stress and performance relationship. Implications of the findings are discussed for future research in the areas of job stress and cross-cultural management.*

### **Introduction**

Job performance along with job attitudes and withdrawal behavior are perhaps the most important dependent variables in management theory and research (AbuAlRub, 2004; Crawford, LePine & Rich, 2010; Eatough, Chang, Miloslavic & Johnson, 2011). Concerted efforts have been made to identify the predictors and outcomes of these important constructs for the past fifty years with some degree of success (Dewa, Thompson & Jacobs, 2011; Harrison, Newman & Roth, 2006; Jamal, 2010; Jex, 1998). The present study examined employees' job stress and job performance relationship in a large multinational organization in two Asian countries, Malaysia and Pakistan. Two recent comprehensive meta-analysis of stress and performance have highlighted the importance of this type of empirical studies in non-Western countries (Gilboa, Shirom, Fried & Cooper, 2008; Muse, Harris & Field, 2003). In addition, the present study also examined the role of organizational commitment in the relationship of job stress and job performance (Glazer & Kruse, 2008).

Constructs like job stress, burnout, organizational commitment, and job performance have been developed and empirically tested in developed industrialized countries (Baba, Jamal & Tourigny, 1998; Maslach, 2003). Their portability and usefulness in developing countries have rarely been examined despite repeated suggestions to do so (Carr & Pudelko, 2006; Foley, Hong-Yue & Lui, 2005; Safaria, Othman & Wahab, 2010). In this respect, the present study contributes to cross-cultural management literature by examining the nature of relationships between the measures of job stress and performance in two developing countries. Our choice of Malaysia and Pakistan as research settings was based not only on practicality but also on suggested empirical findings that these two countries differ from Western countries on the most important dimensions of national culture – individualism and collectivism (Kirkman, Lowe & Gibson, 2006; Noordin, Williams & Simmer, 2002). Whereas most Western countries in general tend to be high on individualism and low on collectivism, countries like Malaysia and Pakistan tend to be high on collectivism and low on individualism (Hofstede, 2001; Triandis, 2004). It is theoretically important to gain knowledge of the potential impact of these cultural differences on job stress and performance relationship.

Job stress can be defined as an individual's reactions to characteristics of the work environment that seem emotionally and physically threatening (Jamal, 2005). It points to a poor fit between the individual's capabilities and his or her work environment, in which excessive demands are made of the individual or the individual is not fully prepared to handle a particular situation (Jamal, 1985). In general, the higher the imbalance between demands and the individual's abilities, the higher will be experienced stress (Jamal, 2005). Job performance can be viewed as an activity in which an individual is able to accomplish successfully the task assigned to him or her, subject to the normal constraints of the reasonable utilization of available resources (Jamal, 1984).

At the conceptual level, four types of relationship were earlier proposed to exist between the measures of job stress and job performance: a negative linear relationship, a positive linear relationship, a curvilinear/U-shaped relationship, and no relationship between the two (Jamal, 1984). A negative relationship between job stress and performance was conceived by those who viewed job stress as essentially dysfunctional for the organization and its employees (Gupta & Beehr, 1979; Kahn, Wolfe, Quinn, Snook & Rosenthal, 1964; Westman & Eden, 1996). These researchers contended that chronic job stress is by its very nature extremely aversive to most employees, creating a noxious situation in the work environment. In such settings, individuals are most likely to spend a sizable chunk of their time and energy in coping with stresses, thus adversely affecting their performance. Therefore, the hypothesis of a negative relationship between job stress and performance tends to be logical to its advocates. A number of studies have shown a negative linear relationship between various facets of job stress and job performance and performance-like variables (Beehr, Walsh & Taber, 1976; Breaugh, 1980). In a recent meta-analysis, 24 (46%) of the 52 empirical studies examined supported a negative linear relationship between job stress and job performance (Muse et al., 2003).

By contrast the U-shaped/curvilinear relationship between job stress and performance can be originally traced back to the work of Yerkes and Dodson (1908). Their model gained momentum with the development of activation theory in the 1960s (Scott, 1966) and, at present, is probably the most popular one in terms of management/organizational textbooks (Ivancevich, Konopaski & Matteson, 2010; Robbins, 2011; Moss, 1981). The reasoning behind this model tends to be that when an individual experiences low stress at the job, he or she is most probably not activated and thus would not exhibit improved performance. On the contrary, if the individual experiences a high level of chronic job stress, he or she may spend time in coping with stress and his or her efforts on the job may be reduced, resulting in low performance. The model suggests that a moderate amount of stress is optimal for job performance because, at such levels, the individual is not only activated but also able to direct his or her energies toward better job performance. A number of laboratory studies have supported this hypothesis (Baddeley, 1972; Cohen, 1980). In the real work setting, this hypothesis has rarely been tested and supported. In the recent meta-analysis cited earlier, only 2 (4%) of the 52 empirical studies supported the existence of a U-shaped/curvilinear relationship between stress and performance (Muse et al., 2003).

The advocates of a positive relationship between job stress and performance generally equate stress with “challenge” (Meglino, 1977). This model can be originally traced back to the work of John Dewey and Arnold Toynbee who view problems, anxieties, difficulties, and challenges as occasions for constructive activities and improved performance. The model suggests that at a low level of stress, the individual does not face any challenge and, therefore, is not likely to show any improved performance. At a medium level of stress, the individual is moderately aroused in terms of challenge and thus will exhibit a mediocre performance. At a high level of stress, the individual experiences optimal challenge and his or her performance will improve accordingly. There are a few laboratory studies supporting this hypothesis (Cohen, 1980). However, in the real work setting, this hypothesis is not commonly tested or supported. In the recent meta-analysis, 7 (13%) of 52 empirical studies supported a positive linear relationship between job stress and job performance (Muse et al., 2003).

The hypothesis of no relationship between job stress and performance originates from the psychological contract approach between the individual and the employing organization. Here, the individuals are viewed as rational beings who are primarily concerned with performance because they know that they are being paid for doing the job. Individuals are expected to ignore the adversities creating hindrances toward better job performance regardless of whatever happens in the work environment. It is believed that workers will not let their performances be affected by those happenings. Their performance will remain more or less at the same level in the presence of high chronic job stress as well as in the absence of it. This segmented view of individuals even suggests that for the majority of workers in industrial societies, work is not the central life interest (Dubin, Hedley & Taveggia, 1976; Taveggia & Kaplan, 1998). Thus, the advocates of this approach view job stress neither as functional (improved performance) nor dysfunctional (reduced performance), but rather as a neutral state for individuals’ job performance. In the recent meta-analysis, 6 (12%) of the 52 empirical studies supported the existence of no relationship between job stress and job performance (Muse et al., 2003).

During the economic recession of the 1980s in North America, considerable attention was devoted both by academics and practitioners to understand Japanese management practices with the hope of improving organizational performance in North America (Durlabhji, 1983; Ouchi, 1981; Pascale & Athos, 1981). One of the basic feature of the Japanese management system in medium and large size organizations has been the principle of “lifetime” employment which supposedly leads to a high degree of organizational commitment among Japanese employees (Ouchi, 1981).

Organizational commitment has been seen as an important factor leading to improved performance among Japanese employees. By definition, organizational commitment refers to the nature of the relationship between an individual and his employing organization. A highly committed person will indicate a strong desire to remain a member of a particular organization, a willingness to exert high levels of effort on behalf of the organization, and a definite belief and acceptance of the values and goals of the organization (Allen & Meyer, 1990; Mowday, Steers & Porter, 1979). Thus, organizational commitment, especially the affective commitment, represents something beyond mere passive loyalty to an organization. Instead, it involves an active relationship with the organization in which individuals are willing to give something of themselves in order to help the organization succeed and prosper (Jamal, 1985).

It is argued in the current study that organizational commitment may act as a moderator of the stress and performance relationship. Organizational factors play an important role in generating job stress (Ivancevich, Matteson & Preston, 1982; Jamal, 2010) and individuals with different levels of organizational commitment may perceive job stress differently. Organizationally committed individuals usually exhibit a high level of trust toward the employing organization (Meyer, Stanley, Herscovitch & Topolnytsky, 2002; Ouchi, 1981). Adversities such as symptoms of high chronic job stress may not be perceived by these individuals as reason enough for not performing at a reasonable level. These individuals may end up spending some of their time in coping with, as well as removing, job stress, but may utilize the remaining time in such a way as to enable them to perform at a reasonable level. Conversely, individuals with low organizational commitment have only limited feelings of loyalty toward the employing organization. In the face of adverse happenings, i.e. high chronic job stress, these feelings may be further reduced and the individuals may put the blame for this adversity on the shoulders of the employing organization. If the individual cannot afford to quit his job due to economic or other factors, then his negative feeling toward the employing organization may become even more serious.

As a consequence, the individual may very well perform only at a marginal level which indicates the minimum acceptable level of performance in the workplace. Therefore, it is suggested in the present study that the relationship between the measures of job stress and job performance will be different among individuals with different levels of organizational commitment. In light of previous empirical studies of job stress and job performance, as well as the recent meta-analysis, a number of hypotheses were developed and tested in the current cross-cultural study. Previous empirical studies have primarily assessed job stress either by job stressors (like work overload, conflict, ambiguity) or with an overall job stress scale (Baba, Jamal & Tourigny, 1998; Eatough et al, 2011). In the present study, stress was assessed by using both job stressors and an overall job stress scale. The study's hypotheses are listed below:

- Hypothesis 1: Overall job stress will be negatively related to job performance in both countries.
- Hypothesis 2: The job stressors work overload, ambiguity, conflict, and resource inadequacy will be negatively related to job performance in both countries.
- Hypothesis 3: Organizational commitment will moderate the relationship between overall job stress and job performance in both countries. It is hypothesized that the performance of highly committed respondents will be less affected by high overall stress than the performance of respondents showing low organizational commitment.
- Hypothesis 4: Organizational commitment will moderate the relationship between the four job stressors and job performance in both countries. It is expected that the performance of higher committed respondents will be less affected by high job stressors than the performance of respondents showing low organizational commitment.

## ***Method***

### **Research Setting**

The present study was conducted among the employees of a large multinational organization in two countries; Malaysia and Pakistan. In both countries, the subsidiary of the multinational was located in a large city having several million inhabitants as well as some world class universities. In both locations, the multinational employed more than 1000 employees at the time of the survey.

### **Procedures**

Data were collected by means of a structured questionnaire in both locations. With the help of the management, copies of the questionnaire were given to potential respondents with their monthly paycheque, with the instructions to mail back the completed questionnaire directly to the researcher.

In the Malaysian sample, approximately 450 questionnaires were distributed among the randomly selected employees. With two follow-ups, 305 completed questionnaires were returned, yielding a response rate of 68 percent. In the Pakistani sample, approximately 450 questionnaires were given to randomly drawn employees. With two follow-ups, 325 completed questionnaires were returned, yielding a response rate of 72 percent.

### Sample Characteristics

In the Malaysian sample, the majority of the respondents were married (82%) and were male (78%). The average respondent was 38 years of age, 15 years of education, 11 years of seniority in the company and had 4 dependants to support. In the Pakistani sample, the majority of the respondents were male (88%) and were married (86%). The average respondent was 43 years of age, 13 years of formal education and had 6 dependants to support. In both countries, respondents were quite similar to total employees in the subsidiary with regard to a number of background and socio-demographic variables.

### Measures

In both locations, the same standardized measurement scales were employed to assess the study's variables, recommended for cross-cultural research (Schaffer & Riordan, 2003). Descriptions of the scales are presented below.

**Job Stress:** Job stress was assessed with the 13-item scale developed by Parker and DeCotiis (1983). It is a Likert-type scale with 1-5 response options, 1 indicating a strong agreement and 5 indicating a strong disagreement with the item. This scale is regularly used to assess overall job stress and has good psychometric properties (Baba, Jamal & Tourigny, 1998).

**Job Stressors:** The Michigan job-related tension scale was used to assess job stressors work overload, ambiguity, conflict and resource (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964). This scale consists of 15 Likert-type items with response options varying from "strongly agree" to "strongly disagree". The 15 items were divided into well accepted four job stressors: work overload (4 items), ambiguity (4 items), conflict (3 items), and resource inadequacy (4 items). A higher score on a job stressor indicated a higher degree stress condition. This scale has been widely used to assess various job stressors and has excellent psychometric properties in cross-cultural studies (Glazer & Beehr, 2005; Jamal, 2005).

**Job Performance:** Job performance data were obtained from the official files of the multinational organization. The organization used a 10-item graphic rating scale for annual performance appraisal of all employees. Each item has one to five response options, 5 indicating an excellent performance and 1 indicating a marginal performance. In both countries, the same performance scales and ratings were used for all employees.

**Organizational Commitment:** Organizational commitment was assessed by the affective commitment scale of Allen & Meyer (1990). This scale has 8 items and has Likert-type response options from strongly agree to strongly disagree. A higher score on the scale indicated a higher degree of organizational commitment. This scale is widely used in social sciences and has excellent psychometric properties in cross-cultural research (Schmidt, 2007).

### Results

#### Insert Table 1 about here

The means, standard deviations and alpha reliability coefficients of all variables are presented in Table 1. Reliabilities varied from .73 (work conflict) to .86 (overall job stress) in the Malaysian sample. In the Pakistani sample, reliabilities varied from .75 (work conflict) to .89 (overall job stress). In both countries, reliabilities were judged to be sufficient for survey-type research.

#### Insert Table 2 about here

Intercorrelations among the study's variable are computed and presented in Table 2. Overall job stress was moderately correlated with four job stressors and job performance. Similarly, four job stressors are moderately correlated with each other and job performance. However, it should be noted that in both countries, the relationship of overall job stress and four job stressors with organizational commitment appeared to be weak and negligible. In order to understand the nature of the relationship between job stress and job performance, both linear and curvilinear tests were performed. Both linear and curvilinear analyses were performed after controlling for age, gender, education, marital status, and seniority. Bivariate multiple regressions between stress measures and job performance were computed as evidence of the linear relationship. A significant R value indicated that a linear relationship is supported between an independent and a dependent variable. Hierarchical multiple regression was performed to test the curvilinear relationship between the measures of job stress and job performance (Cohen & Cohen, 1985).

This procedure requires that a quadratic term for the independent variable be added and the increment in R<sup>2</sup> due to this term being tested with the appropriate formula (SPSS). Both multiple regression  $r$ 's and curvilinear  $r$ 's are presented in Table 3 for both countries.

**Insert Table 3 about here**

In order to support the curvilinear relationship between the measures of job stress and job performance, nonlinear  $r$ 's must be significantly higher than the linear  $r$ 's. Results presented in Table 3 for the Malaysian sample indicated that in only one out of five comparisons, nonlinear  $r$  was significantly higher than the linear  $r$ , involving the job stressor work ambiguity and job performance. For the Pakistani sample, not a single nonlinear  $r$  was significantly higher than the linear  $r$ 's. In sum, results presented in Table 2 and Table 3 generally supported the negative linear relationship between overall job stress and job stressors work overload, ambiguity, conflict, and resource inadequacy with job performance. In both countries, overall job stress was found to be negatively related with job performance, thus supporting hypothesis 1.

**Insert Table 4 about here**

Hypothesis 2 stipulated a negative relationship between four job stressors and job performance. Results presented in Table 2 and Table 3 indicated a negative linear relationship between four job stressors and performance for the Pakistani sample, thus clearly supporting hypothesis 2. For the Malaysian sample, three of the four stressors (work overload, conflict, resource inadequacy) showed a negative linear relationship with performance, whereas work ambiguity appeared to be related to job performance in a monotonic nonlinear manner. Thus, hypothesis 2 was only partially supported for the Malaysian employees. In conclusion, data from two countries supported the existence of a negative linear relationship between the measures of job stress and performance in 90 percent of the comparisons. Curvilinear/u-shaped relationship was supported only in 10 percent of the comparisons.

Moderated multiple regressions were used to test hypotheses 3 and 4, which concerned the interactive effects of organizational commitment on job stress and job performance relationship. To determine the joint contribution of stress and organizational commitment on job performance, hierarchical regression analysis was performed in which the measures of job stress were entered first, followed by organizational commitment and then stress x organizational commitment. A summary of the analyses are presented in Table 4 for both countries. Organizational commitment was found to be an important moderator for the relationship of overall job stress and job performance in both countries. The unique variance explained by the interaction effects of overall job stress x organizational commitment was approximately 6 percent in the Malaysian sample and 4 percent in the Pakistani sample. A close examination of the data through subgroup analysis revealed that respondents with high organizational commitment are less affected than respondents with low organizational commitment in terms of their job performance. Thus, hypothesis 3 was supported for both countries.

Results presented in Table 4 also indicated a partial support for hypothesis 4 in both countries. Among the four job stressors (work overload, ambiguity, conflict, resource inadequacy), only the relationship between work overload and performance was significantly moderated by organizational commitment in both countries. The unique variance explained by the interaction effects was 4 percent for the Malaysian sample and 3 percent for the Pakistani sample. Overall, out of a possible 8 interaction effects between four stressors and organizational commitment, only 3 were found to be statistically significant. Thus, hypothesis 4 was only partially supported by the data in this study.

## ***Discussion***

The results of the present study derived from employees working in a large multinational organization in Malaysia and Pakistan generally replicated the findings obtained from nurses, managers and blue-collar workers in Canada concerning job stress and job performance relationship (Jamal, 1984; 1985). Overall, in both countries, overall job stress and four job stressors work overload, ambiguity, conflict, and resource inadequacy were negatively related to job performance. In addition, organizational commitment moderated 50 percent relationships between the measures of job stress and job performance. Before the findings are discussed any further, a note of caution is warranted about the limitations of this study which might include the perceptual nature of stress measures and organizational commitment and the cross-sectional research design. For future research, it will be desirable to use objective measures of job stress along with perceptual measures and to use longitudinal research design for greater confidence in obtained findings. The dominant findings of the negative linear relationship between the measures of job stress and job performance tend to be in agreement with the recent comprehensive meta-analytic study of the topic (Muse, Harris & Field, 2003).

Their meta-analysis indicated that among the studies they reviewed, 46 percent supported the negative linear relationship, 13 supported the positive linear relationship, 4 percent supported the u-shaped/curvilinear relationship and 12 percent found no relationship between stress and performance. The finding of negative linear relationship between stress and performance might surprise many even to date as it tends to be contrary to the Yerkes-Dodson law (1908) and to the activation theory of motivation (Scott, 1966). Management and organizational behavior textbooks and the popular books on stress and stress management might have contributed to the popularity of the u-shaped/curvilinear relationship between stress and performance at the theoretical level (Ivancevich, Konopaski & Matteson, 2010; Robbins, 2011). Moreover, the intuitive appeal of the u-shaped/curvilinear relationship is almost as hard to ignore as was the intuitive appeal for a positive relationship between job satisfaction and job performance in the 1940's and 1950's. It took twenty to twenty-five years to convince ourselves that a positive relationship between job satisfaction and job performance may not be valid for all, despite the fact that a large number of studies were in existence on this topic. It might take even longer to convince ourselves against the u-shaped/curvilinear relationship between stress and performance because of the paucity of empirical studies relating to job performance (AbuAlRub, 2004; Jamal, 1985). However, it is felt that the meta-analytic review of Muse, Harris and Field (2003) is a step in the right direction to highlight the importance of this controversy.

The present study was intended to be a replication of the three previous studies on job stress and performance which were conducted in an individualistic culture like Canada. Moreover, in the present study, not only were the data collected from employees in two collectivistic cultures (Malaysia and Pakistan) but also multiple measures of job stress and job stressors were employed. Michigan job related tension scale (1964) and the Parker and DeCotiis (1983) overall job stress are among the most commonly used job stress scales in empirical studies in North America (Baba, Jamal & Tourigny, 1998). Both scales have been regularly reported in the literature to be related to performance or performance-type measures in Western individualistic cultures (Beehr, 1998; Lepine, Posdakoff & Lepine, 2005). The results of the present study extends these findings to collectivistic cultures, thus supporting the convergence perspective in cross-cultural management research (Mansor & Tayib, 2010; Pudelko, Carr, Fink & Wentage, 2006). In both countries, measures of job stress were significantly related to measures of job performance in the predicted direction. Only in 10 percent of instances, the nature of relationship was found to be monotonic nonlinear. Therefore, this study could be viewed as a successful replication in a different cultural setting with multiple measures of job stress.

Organizational commitment as a moderator of job stress and performance relation received modest support in both countries. Out of a possible ten comparisons in two countries, organizational commitment significantly moderated five comparisons (50 percent). According to the test suggested by Brozek and Tiede (1952), the probability of this number differences occurring by chance is less than .001. Though organizational commitment moderated only 50 percent of relationship between job stress and performance, yet the dominant patterns of results in both significant and insignificant comparison was that individuals who had high organizational commitment appeared to be better off against the adverse consequences of job stress than individuals who had low organizational commitment. Thus, in the current study, organizational commitment acts as a buffer against the aversive effects of job stress on individuals' job performance. The fact that this conclusion is valid for employees in both countries enhances the value of organizational commitment as a moderator.

In sum, the present study generally supported the negative linear relationship between the measures of job stress and performance in Malaysian and Pakistani samples. Only limited support was noted for the curvilinear/u-shaped relationship. Organizational commitment was found to be an important moderator of stress-performance relationship. Job stressors assessed in the current study were of the nature which will be affected primarily through management actions. Therefore, it is highly recommended that management invest time and resources toward discovering how job stress might be managed for better job performance, as well as for the general well-being of employees (Eatough, Chang, Miloslavic & Johnson, 2011; Jamal, 2007; Schmidt, 2007). In addition, it is felt that despite management's concerted and serious actions to combat job stress, it is probably going to remain an important concern for many in the world of work for years to come, primarily because of our incomplete knowledge of what causes stress in many job situations. Building and enhancing employees' organizational commitment may be an important mechanism in combating some of the aversive effects of job stress on individuals and organizations (Jacob, Tytherleigh, Webb & Cooper, 2007; Schmidt, 2007). As the process of globalization becomes more intense and pervasive in coming years, it seems more important that these actions should reflect cross-cultural perspectives (Al-Roubaie, 2002; Beekun & Badawi, 1999).



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**Acknowledgements**

This study was supported by grants from the Social Sciences Research Council of Canada (410-99-0203; S00 802, 2003-2006) and Fonds pour la formation de chercheurs de l'aide à la recherche from the Province of Quebec (99-ER-0506). The author acknowledges the cooperation and help of Muhammad Anis, Muhammad Jarjis, Muhammad Zafar, Hakim Abdul Baqi, Dr. Amer Al-Roubaie and many research assistants in Malaysia and Pakistan in data collection and analysis. Requests for reprint.....

**Table 1: Means, Standard deviations and reliability coefficients for Malaysian (M) and Pakistani (P) samples.**

Variable	Sample	Number of Items	M	SD	Reliability <sup>a</sup>
(1) Overall Job Stress	(M)	13	2.11	1.03	.86
	(P)	13	2.03	1.09	.89
(2) Work Overload	(M)	4	2.29	1.23	.79
	(P)	4	2.21	0.93	.82
(3) Work Ambiguity	(M)	4	2.17	0.87	.85
	(P)	4	2.29	0.61	.80
(4) Work Conflict	(M)	3	2.25	1.03	.73
	(P)	3	2.10	0.93	.75
(5) Resource Inadequacy	(M)	4	2.53	0.55	.81
	(P)	4	2.61	0.44	.88
(6) Job Performance	(M)	10	3.48	1.21	.85
	(P)	10	3.32	1.01	.88
(7) Organizational Commitment	(M)	8	4.01	.82	.83
	(P)	8	3.68	1.11	.79

a. Reliabilities coefficients are Cronbach's alpha.

**Table 2: Intercorrelations among study's variables for Malaysian (M) and Pakistani (P) employees.**

Variables		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Overall Job Stress	(M) <sup>a</sup>	--						
	(P) <sup>b</sup>	--						
(2) Work Overload	(M)	.44	--					
	(P)	.39	--					
(3) Work Ambiguity	(M)	.32	.48	--				
	(P)	.33	.41	--				
(4) Work Conflict	(M)	.39	.43	.33	--			
	(P)	.42	.44	.42	--			
(5) Resource Inadequacy	(M)	.36	.40	.32	.27	--		
	(P)	.39	.43	.38	.44	--		
(6) Job Performance	(M)	-.35	-.36	-.44	-.36	-.28	--	
	(P)	-.39	-.39	-.29	-.41	-.31	--	
(7) Organizational Commitment	(M)	-.11	-.08	-.05	-.11	-.08	.11	--
	(P)	-.09	-.06	-.10	-.04	-.08	.12	--

a. N = 305, r = .09, p < .05, r = .14, p < .01

b. N = 325: r = .08, p < .05, r = .13, p < .01

**Table 3: R and R2 from multiple regressions and from curvilinear coefficients between job stressors and job performance for Malaysian (M) and Pakistani (P) employees.**

Job Stressor	Sample	R from Multiple Regression		R from Curvilinear Coefficient	
		R	R2	R	R2
(1) Overall Job Stress	Ma	.32	.102	.34	.115
	Pb	.38	.144	.41	.168
(2) Work Overload	M	.33	.108	.35	.122
	P	.36	.129	.37	.136
(3) Work Ambiguity	M	.39	.152	.48	.23c
	P	.25	.062	.27	.072
(4) Work Conflict	M	.32	.102	.30	.090
	P	.40	.160	.43	.184
(5) Resource Inadequacy	M	.27	.072	.29	.084
	P	.29	.084	.31	.096

N = 325,  $r = .14$ ,  $p < .01$

N = 325,  $r = .13$ ,  $p < .01$

c. Difference between the linear and curvilinear r values is statistically significant ( $p < .05$ )

**Table 4: Results from hierarchical moderated multiple regression analyses predicting job performance for Malaysian (M) and Pakistani (P) employees.**

Regression Results	Job Performance			
	Malaysian Sample (N = 305)		Pakistani Sample (N = 325)	
	R2	R <sup>2</sup> <sub>adj</sub>	R2	R <sup>2</sup> <sub>adj</sub>
Overall Job Stress (OJS)	.102**	.102**	.115**	.115**
Organizational Commitment (OC)	.108**	.006	.117**	.001
OJS x OC	.166**	.058*	.158**	.042*
Work Overload (WO)	.108**	.108**	.122**	.122**
Organizational Commitment (OC)	.113**	.001	.124**	.001
WO x OC	.149**	.040*	.154**	.031*
Work Ambiguity (WA)	.152**	.152**	.230**	.230**
Organizational Commitment (OC)	.162**	.010	.231**	.001
WA x OC	.168**	.006	.232**	.001
Work Conflict (WC)	.102**	.102**	.090**	.090**
Organizational Commitment (OC)	.104**	.002	.090**	.000
WC x OC	.105**	.001	.090**	.000
Resource Inadequacy (RI)	.072**	.072**	.084**	.084**
Organizational Commitment (OC)	.102**	.003	.087**	.003
RI x OC	.155**	.08*	.103**	.016

\*  $p < .05$

\*\*  $p < .01$