JINNAH BUSINESS REVIEW

http://www.jbrc.pk

EDITORIAL BOARD

Composed & Designed By: KHAWERI

TABLE OF CONTENTS

IMPACT OF WORK FAMILY CONFLICT ON BURNOUT AND WORKPLACE DEVIANT BEHAVIOR: MEDIATING ROLE OF STRESS

UME RUBAB

Riphah International University, Islamabad, Pakistan

ABSTRACT

The current study was aimed at finding the effect of Work Family Conflict (WFC) on Burnout and Workplace Deviant behavior of employees, through the mechanism of Job Stress at banks in Pakistan. Data were collected through questionnaire from both private and public sector banks of Pakistan, with the sample size of 250. The hierarchical regression analyses were run in order to test the hypotheses. The findings suggested that work family conflict has a significant and positive effect on both burnout and workplace deviant behavior, whereas, stress partially mediates the relationship of work family conflict with burnout, as well as with workplace deviant behavior. Results have been discussed in the light of past studies and implications for managers and researchers have also been suggested.

INTRODUCTION

People spend large amount of time at their work place. It is not only the time but they also spend their energy in their work. In turn, their professional life grants them structure and purpose to their lives (Jahoda, 1982). Increasing working hours have blurred the borders of home and work in the modern era, consequently affecting each other. Work-family conflict (WFC) is becoming a common trend of new times in many countries and cultural contexts (Aycan, 2005). This research has been conducted in back ground of workplace conflict, stress and their result appearing in form of workplace deviance and burnout. Substantial changes, not only on demographic composition but also in roles and expectations of men and women have led to attempt to understand the factors leading to work family conflict. Literature on Work-family conflict focused on the negative psychological effects, which juggle work and family roles. The issue of work-family conflict emerged in the 1980s, when women started participating in workforce to a larger extent (Tsai, 2008). Despite extensive applied and a lot of scholarly interest, the understanding of work–family conflict is still narrowly explained. Work family conflict occurs when work responsibilities exceed family responsibilities (Wallace, 2005). Work–life conflict entails the situations in which the demands and responsibilities of paid work and non-work roles are contrary in some respect (Byron, 2005). There is a need to pay attention to the interface of work and family roles which could result in conflict and the negative consequences arising from the conflict (Ahmad

et al., 2011).

The occurrence of deviant behavior which includes fraud, theft, withholding effort, aggressive behavior, and sexual harassment in the workplace is a big challenge for organizations (Alzola, 2008). Work family conflict results in job burnout (Karatepe & Uludag, 2008). The challenging work environment creates an imbalance in terms of job, personal life and professional life. This imbalance influences the attachment of people to their work. The imbalance can be a reason of stress. There is a lot of research which states that Work life conflict is related to psychological outcomes, one of which is stress (Dragano et al., 2008). Various studies from Asia claim for the work-family conflict perspective and describe negative effects of WFC on Asian women. In one study from Hong Kong, it was observed that married female professionals reported intense levels of WFC and cited multiple roles, insufficient time, and lack of support from husbands as reason of their stress (Lo, Stone, & Ng, 2003). However, because the demographics of the work force and families are changing, dual-earner families are becoming common, and more women are entering the workforce, researchers have been forced to reconceptualize work-family conflict research to cater to this rapidly changing world (Frone, Russell, & Cooper, 1992).

In the current situation, the need for new research to be conducted in work-family conflict is apparent. It is necessary for organizations to understand the reasons and consequences of the WFC that exist across time in order to help employees prevent and handle the distress that is caused by clash of work and family demands.

Employees in many public organizations are increasingly recognizing that work is interfering with their personal lives. Work-life balance is a broad concept that describes prioritizing between career on one hand, and family, pleasure and leisure on the other hand. Employees are unable to cope with this bi directional conflict and complaints, which are raising every-day (Idemobi, Ellis, Akam & Uche, 2012).

Employee families will gain from this new perspective by understanding the consequences of work-family conflict, as understanding the problem is the first step in helping families to take steps to eradicate negative family-related effects of work-family conflict. Finally, organizations also gain an understanding of the consequences of work family conflict as managers will be better able to offer solutions by preventing organizational outcomes of work-family conflict. Studying burnout is particularly crucial for employees within the banking sector as it is an essential service and many of its occupational groups play important roles in lives of people. Bankers are particularly susceptible to work conflicting with family and vice versa because of their responsibilities in the organization. Conflicting demands of both clients and the bank they represent may lead to a variety of role stresses (Netemeyer, Brashear-Alejandro & Boles 2004). An increased emphasis on long term relationship between customer care representatives /relation office and clients/customers has added additional burden on work and family boundaries.

Employees in banks are forced, encouraged as well as compensated to form long-term relationships with their customers/clients, they experience increased time-demands and a need to be available to the customer at all times (Beverland & Micheal, 2001). As a result, employees feel distressed, tired and not willing to go to their work. As a result, some more severe consequences may come up as a result of this unfavorable relationship, for example, the impairment of mental and physical health or the worsen relationship with family members (Maslach & Jackson, 1981).

LITERATURE REVIEW

Work Family Conflict and Stress

Work-family conflict is generally defined as a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible because participation in one role is made more difficult by virtue of participation in the other (Greenhaus & Beutell, 1985). Work-family conflict can be conceptualized as comprising two forms: time-based and strain-based (Edwards & Rothbard, 2000).

Work-family conflict is also believed to be one of the common sources of work stress (Demerouti, Nachreiner, Bakker & Schaufeli, 2001; Frone, Russell, & Cooper, 1992; Solomon, 1994). For instance, Grunfeld, Zitzelsberger, Coristine, Whelan, Aspelund and Evans (2004), in a rare study of job stress among cancer workers, argue that a major source of work stress is work-family conflict coupled with heavy workload demands.

Bedeian et al. (1988) found that there is a relationship between work-family conflict and job stress. According to Netemeyer et al. (2004), job stress is defined as anxiety or general nervousness associated with the job that has an impact upon one's emotional and physical well-being. Similarly, as per literature, WFC is found to be positively related with stress (Major, Klein & Ehrhart, 2002; Judge & Colquitt, 2004; Anderson, Coffey & Byerly, 2002). In another study conducted by Allen et al. (2000) on work-family conflict it was found that work-family conflict is significantly related to job/work stress and negative feelings at work. In view of above discussion, following hypothesis is formulated:

Hypothesis 1. There is a positive relationship between work family conflict and stress.

Works-Family Conflict and Burnout

Burnout is prolonged psychological response to chronic interpersonal and emotional stressors found on the job that is indicated by feelings of emotional exhaustion, depersonalization and lack of accomplishment (Maslach, Schefeli & Leiter, 2001). Burnout has two critical dimensions: emotional exhaustion and disengagement; which means feelings of being overextended and exhausted by the emotional demands of work and an inability to identify and engage with the job (Demerouti et al., 2001).

An important outcome of work-family conflict is burnout (Bakker, Killmer, Siegrist, Wilmar & Schaufeli, 2000; Jassen, Scahufeli, & Houkes, 1999; Jenkins & Elliott, 2004). Burnout is defined by Maslach (1993) as a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among employees. Work-family conflict has a positive relationship with job burnout and is often associated with a higher tendency to leave the organization (Frone et al., 1992; Maslach, 1993; Lee & Ashforth, 1996). Work family conflict is the strongest predictor of burnout (Shirom et al, 2005). The growing incidence and prevalence of the burnout has certain costs on the family or the health of individuals (José et al., 2010). In a research, findings confirmed the direct relationships between burnout and several of the areas of work life

(Leiter & Maslach, 2009).

Hakanen et al. (2008) also found that the increase in burnout negatively affects the harmony in families. The impact of burnout was expected to be negative on work-family balance as burnout intimidates the work-family harmony. In another study conducted by Bakker et al. (2005), it was found that married couples transfer their burnout to each other. That is to say, the experienced burnout even affects the partner of an individual. In view of above discussion, following hypothesis is formulated:

Hypothesis 2. There is a positive relationship between work family conflict and burnout.

Work Family Conflict and Workplace Deviant Behavior

Workplace deviance occurs when an employee voluntarily pursues a course of action that threatens the well-being of the individual or the organization. Examples include stealing, hostile behavior towards coworkers, and withholding effort. Stealing and withholding effort are categorized as organizational deviance, whereas hostile and rude behavior towards coworkers is categorized as interpersonal deviance (Robinson & Bennett, 1995). Dictionary definitions of deviant behavior refer to actions that deviate from norm or from accepted societal standards. A deviant is a person whose attitude or behavior clashes from normal or accepted social or moral standards.

Deviant behavior of employees has accounted for a terrific amount of revenue loss to organization and even more permanent damage to a workplace environment. Due to the expenses involved, it is clear that the deviant behavior problems are of great apprehension to organizations. This problem must be addressed and solved by organizations if they are to survive (Appelbaum, Deguire & Lay, 2005). Victims of workplace deviant behavior include employees as well as employers and act can be a workplace deviant if it breaches the major rules of organizational life (Bennett & Robinson, 2000)

Work-family conflict results in impaired working attitude and also can influence overall productivity Employees who are targets of workplace deviance are more likely to leave, suffers from stress-related problems, low productivity and morale (O'Leary-Kelley, Griffin & Glew, 1996).Now, studies have begun focusing on the interwoven domains of the individual, family, and employer that truly influence the work family conflict variable and the organization. The concern is that the difficulties found in juggling family and work responsibilities can negatively affect

the employee's performance. Deviance is a major problem for employees and their employers. Deviance reduces employee effectiveness, which has negative effects on organizational functioning. In view of above discussion, following hypothesis is formulated:

Hypothesis 3. There is a positive relationship between work family conflict and workplace deviant behavior.

Stress and Burnout

Stress results from an imbalance between demands and resources (Lazarus &Folkmans, 1984). Stress is a process of behavioral, emotional, mental, and physical reactions caused by prolonged, increasing, or new pressures that are significantly greater than the availability of coping strategies (Durham, 1992). Stress in the workplace occurs when individuals (a) are confronted with the threat of loss of resources, (b) lose their resources or (c) invest resources and do not harvest what they have expected in return (Hobfoll, 2001). Extensive exposure to stress can lead to physical causes as well as the psychological or mental causes such as burnout (Cooper et al., 2001). Burnout is described as a specific form of stress which is commonly experienced by professionals employed in professions that require a great deal of interpersonal contact (Cordes & Dougherty, 1993).

Stress is viewed as an individual's reaction to the characteristics of the work environment that appear threatening (Jamal, 1985).   In the past, effect of stress on burnout was not deemed as important, however now a day, more and more organizations are realizing the impact of these conditions on employee health (Faragher et al., 2004). Burnout is defined as extreme cause of stress (Cooper et al, 2001; Maslach et al. 2001; Shirom et al, 2005).Research in burnout has also consistently found that job-related stress predicts employee burnout (Aryee, 1993). Schaufeli (2003) states that burnout is the chronic form of stress that exceeds the limits of person's ability to cope it and as a result lead to burnout.

In a study examining the effects of job-related stress and social support on burnout in teachers, findings suggested that teachers who experienced higher levels of job stress reported more emotional exhaustion and depersonalization than those experiencing low levels of job stress (Russell et al., 1987). Hock (1988) also found the same relationship between stress and burnout. Burnout may be one of the many possible responses to stress at work place (Muldary, 1983).   Burnout occurs in response to extended stress at work place and it is common among those who are unable to cope

with demands and pressure on their energy, time, and resources and those who require frequent contact with people (Azeem, 2010). In view of above discussion, following hypothesis is formulated:

Hypothesis 4. There is a positive relationship between stress and burnout.

Stress and Workplace Deviant Behavior

A dictionary definition of stress is "a condition, either mentally or emotionally upsetting, that occurs in response to mostly negative external influences that may affect physical health, usually characterized by an increase in heart rate, hypertension, muscular tension, irritability, and even depression" (The American Heritage Dictionary 2000). Studies on workplace deviant behavior received little attention among scholars in the past (Vardi & Weitz, 2004). Work stressors can trigger anger, anxiety, and other emotions that under some circumstances might lead to violence (Spector & Fox, 2005) that is deviance at work.

According to Driscol (2003), it is accepted that prolonged stress has considerable impact upon mental and physical health and can influence individuals lives, their wellbeing and can result in poor work performance. Job stress has been recognized as a significant occupational hazard, which can result in poor psychological well-being, and poor work performance (Sauter& Murphy, 1995). Employee deviance is an emotional response to the experience of frustrating job stressors (Chen & Spector, 1992). It is important for organizations to identify the causes of stress at workplace to facilitate individuals to find appropriate ways to deal with these stressors before it results in destructive actions and deviant behaviors. In view of above discussion, following hypothesis is formulated:

Hypothesis 5. There is a positive relationship between stress and workplace deviant behavior.

Mediating Role of Stress

Maslach et al. (2001) argued that job related stress is a direct antecedent of job burnout. It is argued that excessive time pressures and demands may not only negatively affect banker's general well-being, but may also affect their ability to balance work and family. Some other researchers have examined the antecedents of burnout and have found that both work-family conflict and job stress directly predict burnout (e.g. Aryee, 1993; Netemeyer et al., 1996; Russell, Altmaier & Velzen, 1987; Taris, Peeters, Le Blanc, Schreurs & Schaufeli, 2001).

The conflict between work and family life can be the source of stress (Frone et al., 1992) and stress itself influences the psychological and physical outcomes resulting in burnout. The individual will bring that burnout to home too thus disturbing his relations with partner, children, parents and friends too. As Freudenberger (1974) identified burnout as a state of fatigue or frustration brought about by devotion to a cause, way of life or relationship that failed to produce expected reward. So it is assumed further that if an employee is facing work family conflict, it would lead to stress and stress would result in burnout at workplace.

Hypothesis 6. Stress mediates the relationship between work family conflict and burnout.

The blurred line between work and family may also prop up interpersonal conflict among family members, which often results in high levels of stress and negative emotions as well as destructive behaviors (Kellermanns & Eddleston, 2004). Destructive behavior is a phenomenon of deviant work place behavior. Job-related stress is everywhere. No one in the workforce is completely unaffected, regardless of their job title, daily tasks, or work setting. Today, the workplace has turned more stressful than ever, because of higher demand from a lesser workforce.

Employees who are targets of workplace deviance are more likely to quit, have stress-related problems, decreased productivity, low morale, lost work time (O'Leary-Kelley, Griffin, & Glew, 1996) and interpersonal workplace deviance, such employees are more likely to suffer from stress-related problems and show a relatively decreased productivity, lost work time and a relatively high turnover rate (Henle et al., 2005).

Employees who are high on work family conflict may experience more stress and get less support from their partner. As a result they may develop negative attitude towards their colleagues too and to their work as well and become less capable of dealing with problems at work. As a result, they may be unable to deal with their clients pleasantly, manifesting more negative attitude towards their work, as well as towards colleagues and clients, thus engaging in workplace deviant behavior. So it is assumed further that if an employee is facing work family conflict, it would lead to stress and stress would result in deviant workplace behavior.

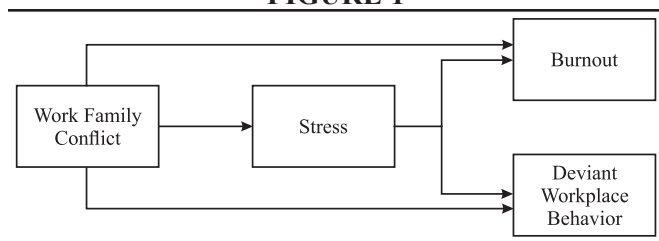*Hypothesis 7. Stress mediates the relationship between work family conflict and workplace deviant behavior.*

FRAMEWORK
FIGURE 1

RESEARCH METHODOLOGY

The current study is of descriptive nature, aimed at investigating the causal relationship between the study variables. It was a field survey with no interference and non contrived environment. Time horizon of the study was cross sectional. Unit of analysis was individual. The responses for all variables were taken on 5-point likert-scale with anchors ranging from 1 = strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree 5= strongly agree. The total number of questionnaires distributed was 300 and responses were 250 making response rate of 83%. Selected sample guaranteed that all the managerial levels i.e. officers, assistant managers, managers and regional managers, customer sales representative, etc. are appropriately represented in the survey, in proportion to the percentage of each group in each organization. The population for the study consisted of all employees working in corporate and public sector banks in Pakistan.

Instrumentation

For job stress, Job Stress Questionnaire (JSQ; American Institute of Stress, 2009) was used in order to collect data. It contained 10 items with alpha coefficient of .79. In order to collect data for workplace deviant behavior, The Workplace Deviance

Scale developed by Bennett & Robinson (2000) was adapted. It contained 19 items with alpha coefficient of .81. Work- Family conflict data were collected using Work Family Conflict Test questionnaire (Netemeyer et al, 1996), containing 5 items with alpha coefficient of .79. Similarly, Maslach Burn out Inventory-General Survey (MBI-GS Schaufeli et al, 1996) was used for data collection of burnout construct. The questionnaire contained 16 items with alpha coefficient of .75.

RESULTS

Means, standard deviations and correlations among the study variables are shown in Table 1.

TABLE 1
Means, Standard Deviations, Correlations, and Reliabilities

	Mean	SD	WFC	Stress	BO	WPDB
WFC	4.19	.54	(.79)			
Stress	3.8	.62	.727**	(.79)		
BO	3.37	.41	.739**	.677**	(.75)	
WPDB	4.15	.76	.570**	.522**	.600**	(.81)

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The reliabilities have been reported in parenthesis along the diagonal in the table. Correlation analysis was conducted to measure relationship among the variables. Reliability of the scale of work family conflict was reported to be 0.79, for job stress questionnaire it was 0.79, for burnout inventory Cronbach's alpha was 0.75 and for work place deviance scale it was reported to be 0.81. Reliabilities of all the variables were above the conventional standards. Mean value for work family conflict was reported to be 4.19 (S.D. = 0.54), for stress mean value was 3.8 (S.D. = 0.62), for burnout mean value was 3.37 (S.D. = 0.41), whereas, the mean value of workplace deviance was found to be 4.15 (S.D. = 0.76).

TABLE 2
Multiple Regression Analysis

Predictors	Stress			Burnout			WPDB		
	β	R²	ΔR²	β	R²	ΔR²	β	R²	ΔR²
Direct									
WFC	.727***	.529***	-	.739***	.547***	-	.570***	.325***	
Indirect effect									
Step 1									
Stress				.677***	.456***	.130***	.522***	.270***	.077***
Step 2									
WFC				.525***	.585***	-	.403***	.344***	-

*p < .05
**p<.01
***p<.001

Correlation among stress and work family conflict was found to be .727** (p < .01) showing a strong positive relationship among these two. Correlation among work family conflict and burnout was found to be 0.739** (p < .01), which depicts a significant positive relationship among these two. Work family conflict is positively related to work place deviant behavior 0.570** (p< .01). Similarly, stress and burnout were found to be significantly correlated as per the table at 0.677** (p< .01), as well as stress and workplace deviant behavior, which showed significant positive correlation at 0.522** (p < .01). Ultimately, correlation among burnout and workplace deviant behavior was recorded at 0.600** (p < .01) revealing a very strong positive relationship between these two variables.

Regression Analysis

Regression analysis was performed using Baron and Kenny (1986) method.

Condition one described by Baron and Kenny (1986) was satisfied when initial variable, i.e. work family conflict was regressed with outcome variables, burnout and workplace deviant behavior. Work family conflict was entered as independent variable and burnout was entered as dependent variable. The result was significant at β = 0.739 (p < 0.001). Second outcome variable was entered as dependent variable and work family conflict was entered again as independent variable. The results were significant at β= 0.570 (p < 0.001) confirming that work family conflict positively predicts burnout and workplace deviant behavior; therefore, providing support for the hypothesis two.

Second condition of Baron and Kenny (1986) was satisfied when initial variable (WFC) was regressed with mediating variable stress. Work family conflict was entered as independent variable and stress was entered as dependent variable. The result was significant at β = 0.727 (p< 0.001) confirming that stress is positively predicted by work family conflict, thus leading to the acceptance of hypothesis one.

Third condition was satisfied when mediating variable was regressed with outcome variables. Stress was entered as independent variable, whereas burnout was entered as dependent variable. The result was significant at β = 0.677 (p< 0.001), confirming that stress positively predicts burnout, lending support for hypothesis four. Similarly, stress was again entered as independent variable and workplace deviant behavior as dependent variable. The result was significant again between stress and workplace deviant behavior (β = 0.522, p < 0.001) confirming that stress positively predict workplace deviant behavior, leading to the

acceptance of hypothesis five.

Condition four described by Baron and Kenny (1986) verifies the mediation of variables. First stress was controlled; work family conflict was entered as independent variable and burnout as dependent variable. Result was significant yet again, (β = 0.525, p < 0.001 , R²=.585, ∆R² =.130) , earlier the value of R² was .456 of burnout by stress, which with mediation of stress raised and change in R² is reported 13 percent, thus showing that stress mediated and intensified this relation more by 13 percent. It gave a significant value exploring the fact that stress partially mediates the relation between work family conflict and burnout, thus finding support for hypothesis six as well. Ultimately, work family conflict was entered as independent variable and workplace deviant behavior as dependent variable and the result showed β = 0.403 (p <0.001, R² = 0.344, ∆R² = 0.077, earlier without mediation of stress, the value of R² was 0.270 of workplace deviance by stress, which with mediation of stress and addition of work family conflict raised to 0.344, therefore, concluding that stress partially mediates the relationship between work family conflict and workplace deviant behavior, resulting in acceptance of hypothesis seven.

DISCUSSION & CONCLUSION

The present study investigated the influence which the stress has on work family conflict among bank employees and it was proposed that burnout and deviant work place behavior can be the outcomes of stress along with the work family conflict. Developed questionnaires were administered for assessing the level of work family conflict and stress and their outcomes.

Findings suggested that there is a significant relationship among variables of stress and work family conflict. Thus indicating that work family conflict is positively related to stress thus affirming H1 of this study. These results confirm the findings of a study conducted by Lee, Um, & Kim,(2004), which also stated that stress usually results due to work family conflict. In another research by Solomon, (1994) it was stated that work-family conflict is a common cause of stress at work, by the virtue of more diverse workforce, Pakistan is becoming more diverse, where more females are joining work and entering into professional lives. Secondly more of the families in Pakistan suggest banking and teaching are more preferable for females. That is also the reason that work family conflict is increasing. When employees are stressed at work because of job requirements, strict deadlines, time pressure or pressure from supervisor, when they are back to their home and off from work environment, they bring that stress to their home in bad

mood swings and consequently they take it out on their spouse or children resulting in increased work family conflict.

The second hypothesis was the work family conflict will positively predict burnout and this hypothesis was supported because the results revealed that there was significant impact, which work family conflict had on burnout among employees. These findings are consistent with the previous studies. Burnout is considered as one of the most common effects of the work family conflict (Bakker et al., 2008; Aryee, 1993). In a study conducted by Lingard (2004), family variables were found to be the reasons of burnout. Employees become tensed because of some issue or conflict with their spouse or because of not giving adequate time at home or their families and because of augmented requirements and responsibilities at work would accordingly experience burnout. Third hypothesis was that work family conflict will positively predict deviant work place behavior. Results show that work family conflict is one of the factors which predict deviance at work. Muddled boundary line flanked by job and family may also crutch up interpersonal conflict among family members resulting in destructive behaviors at work (Kellermanns & Eddleston, 2007). There are obviously many other factors which can be the cause of workplace deviance however findings of this study give direction to a new dimension that one of them is work family conflict. Fourth hypothesis was that stress will positively predict burnout. As burnout results in response to chronic interpersonal or emotional stress found at job. Previous studies on burnout states that burnout develops from extended stress. According to previous researches one key reason contributing to burnout is stress (Taris, et al., 2001; Shirom et al., 2000; Maslach et al., 2001), thus supporting hypothesis five.

Fifth hypothesis was that stress predicts deviant work place behavior. Concern about growing negative deviant behavior is increasing because of its unfavorable and damaging impact upon organizations and colleagues at work place. As it is understood that stress related to work can have many detrimental effects upon employees and also on organization. Employee can become distressed or upset and irritated because of experiencing stress at workplace which may lead to deviant workplace behavior. This argument is consistent with previous researches which supports that stress is related to aggression, hostility or interpersonal conflict. According to Cooper et al, (2001) it is accepted that lingering stress has extensive impact upon mental and physical health and can manipulate individuals lives, their well-being and can result in poor work performance. Sixth hypothesis was that stress will mediate the relationship that exists between work family conflict and burnout. Results show that stress partially mediates this relationship.

There is a partial co relation. Many scholars observed the background and antecedents related to burnout and argued that work family conflict and job stress can be the reasons of burnout (Aryee, 1993). Long working hours at work are nerve-racking for employees resulting in form of stress which hinders their capability to accommodate work and family requirements, resulting in form of work family conflict. Moreover, work family conflict consequently would interrelate with so many psychological and physical problems such as depression, and burnout. Thus, it is stated that stress is partially mediating the relationship that exists between WFC and burnout.

Last hypothesis was that stress will mediate the relationship that exists between work family conflict and work place deviant behavior. Results show that stress is mediating the relationship among work family conflict and workplace deviant behavior. Hence, lending support for the hypothesis seven. Results show that issues of work family conflict are domain specific, meaning that work family conflict is interrelated to stress, while stress is linked to its outcomes resulting in burnout and deviance.

Implications for Managers

It may appear from the given model that this study is only applicable for bank employees; however, findings of this paper suggest that managers from all organizations should consider its findings. Employers should become increasingly aware of cost implications associated with overworked and burned out employees. There are various factors associated with stressed and deviant individuals like absenteeism, poor productivity and low morale etc. Organizations should have facilitation and coaching centers and coaching experts/psychologist who can provide assistance to those suffering from stress and consequently become victim of work family conflict and burnout. Managers should also provide supportive workplace culture to reduce stress and deviance at work. Managers should implement family friendly policies and flexible time conflict to reduce work family conflict. Organizations should provide day care facilities for their female staff to control work family conflict and consequently its various outcomes which are stress, burnout and deviant behavior at work too. For organizations to succeed they should understand the needs of workers with family responsibilities and indeed changes in legislation need to be made accordingly.

Limitations

Although, the objective of the study has been achieved, like any other research, this study also has

certain limitation. Current study is not a longitudinal one rather it is a cross sectional study that illustrates a stagnant representation of the said issue at one point in time, while actuality is vibrant. Individual behavior keeps on changing. Impact of stress should be, if possible, measured with some time difference and at different situations. It is recognized that attempt to study impact of stress on work family conflict and its outcomes is still only a partial solution of the problem. In this study, only work-family conflict is considered. Another important point needs to be mentioned is that a bigger sample of workers would have permitted for more precise domino effect and improved generalization.

Directions for Future Research

In present study issue of work family conflict is taken that how job interferes with family life, in future research family work conflict should also be added as another variable that how family responsibilities interfere with professional life. Moreover this study needs to be conducted with some demographic factors such as how many kids one has, how mature their kids are and career of spouse. Further, a comparison of male and females on work family conflict can also be done regarding how these both genders are different in this domain and what are the factors which cause any gender to become target of burnout at work and whether gender plays any role in becoming more deviant at work or not. Future research is needed in different types of organizations to study the relationship that exists between supportive workplace, work family conflict as well as their consequences.

REFERENCES

Ahmad, A., Mustapha, N., Uli, J., &Idris, K. (2011). Work-Family Factors and Its Relationships Between Dispositional, Occupational Characteristics and Intention to Stay. *International Journal of Business Research and Management*, 2 (3), 74-80

Allen, T.D., Herst, D.E., Bruck, C.S., & Sutton, M. (2000). Consequences Associated with Work-to-Family Conflict: A Review and Agenda for Future Research. *Journal of Occupational Health Psychology*, 5(2), 278–308.

Alzola, M. (2008). Character and Environment: The Status of Virtues in Organizations. *Journal of Business Ethics*, 78(3), 343-357.

Anderson, S.E., Coffey, B.S., & Byerly, R.T. (2002). Formal Organizational Initiatives and Informal Workplace Practices: Links to Work–Family Conflict and Job-Related Outcomes. *Journal of Management*, 28(6), 787–810.

Appelbaum, S. H., Deguire, K. J., & Lay, M. (2005). The relationship of ethical climate to deviant workplace behaviour. Corporate Governance: *The International Journal of Business in Society*, 5(4), 43-55.

Aryee, S. (1993). Dual-Earner Couples in Singapore: An Examination of Work and Non Work Sources of their Experienced Burnout. *Human Relations*, 46(12), 1441-1467.

Aycan, Z. (2004). Key Success Factors for Women in Management in Turkey. *Applied Psychology, An International Review*, 53(3), 453-477.

Azeem, S.M. (2010). Personality Hardiness, Job Involvement and Job Burnout among Teachers. *International Journal of Vocational and Technical Education*, 2(3), 36-40

Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2005). Crossover of Burnout and Work Engagement among Working Couples. *Journal of Human Relations*, 58(2), 661-689.

Bakker, A. B., Killmer, Siegrist, J., Wilmar, B., & Schaufeli, W. B. (2000). Effort-Reward Imbalance and Burnout among Nurses. *Journal of Advanced Nursing*, 31(4), 884-891.

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173 – 1182

Bedeian, A.G., Burke, B.G., & Moffett, R. G. (1988). Outcomes of Work-Family Conflict among Married Male and Female Professionals. *Journal of Management*, 14(3), 475 – 492.

Bennett R J & Robinson S L 2000. Development of a measure of workplace deviance. *Journal of Applied Psychology*. 85(3), 349-360

Beverland, B., & Michael, B. (2001). Contextual Influences and the Adoption and Practice of Relationship Selling in a Business-to-Business Setting: An Exploratory Study. *Journal of Personal Selling and Sales Management*, 21 (3), 207-215

Byron, K. (2005). A Meta-Analytic Review of Work-Family Conflict and Its Antecedents. *Journal of Vocational Behavior*, 67(2), 169–198.

Chen, P. Y., & Spector, P. E. (1992). Relationships of Work Stressors with Aggression, Withdrawal, Theft and Substance Use: An Exploratory Study. *Journal of Occupational & Organizational Psychology*, 65(3), 177-184.

Cooper, C. L., Dewe, P. J., & O'Driscoll, M. P. (2001). Organizational Stress: A Review and Critique of Theory, Research, and Applications. Thousand Oaks, CA: Sage Publications.

Cordes, C. L., & Dougherty, T. W. (1993).A Review

and an Integration of Research on Job Burnout. *Academy of Management Review*, 18(4), 621-656.

Demerouti, E., Nachreiner, F., Bakker, A. B., & Schaufeli, W. B. (2001). The Job Demands-Resources Model of Burnout. *Journal of Applied Psychology*, 86(3), 499-512.

O'Driscoll, M. P., Poelmans, S., Spector, P. E., Kalliath, T., Allen, T. D., Cooper, C. L., & Sanchez, J. I. (2003). Family-responsive interventions, perceived organizational and supervisor support, work-family conflict, and psychological strain. *International Journal of Stress Management*, 10(4), 326-344..

Dragano, N., Ying, H., Moebus, S., Jockel, K., Erbel, R., & Siegrist, J. (2008). Two Models of Job Stress and Depressive Symptoms. *Social Psychiatry and Psychiatric Epidemiology*, 43(1), 72–78.

Durham, J. (1992) Stress in teaching. (2nd ed.) London: Routledge.

Edwards, J. R., &Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25(1), 178–199.

Faragher, E.B., Cooper, C.L., &Catwright, S. (2004). A Shortened Stress Evaluation Tool (ASSET). *Stress and Health*, 20(4), 189-201

Freudenberger, H. J. (1974). Staff Burn-Out. *Journal of Social Issues*, 30(1), 159–165.

Frone, M. R., Russell, M., & Cooper, M.L. (1992). Antecedents and Outcomes of Work-Family Conflict: Testing A Model Of The Work-Family Interface. *Journal of Applied Psychology*, 77(1), 65-78.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of Conflict Between Work and Family Roles. *Academy of Management Review*, 10(1), 76–88

Grunfeld, A., Zitzelsberger, L., Coristine, M., Whelan, T.J., Aspelund, F., & Evans W.K. (2004) Job Stress and Job Satisfaction of Cancer Care Workers, *Psycho-Oncology*, 14(1), 61-69.

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 & Stress*, 22(3), 224-241.

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, 50(3), 337-421.

Henle, C.A., Giacalone, R.A., &Jurkiewicz, C.L. (2005).The Role of Ethical Ideology in Workplace Deviance. *Journal of Business Ethics*, 56(3). 219-241

Hock, R. R. (1988).Professional Burnout among Public School Teachers.Public Personnel Management,

17(2), 167-187.

IDEMOBI, E. I., & AKAM, U. G. (2012). MANAGING WORK-LIFE CONFLICT A TYPICAL PUBLIC S. African Journal of Social Sciences, 2(1), 85-96.

Jamal, M. (1985). Relationship of job stress to job performance: A study of managers and blue-collar workers. *Human Relations*, 38(5), 409-424.

Jahoda, M. (1982). Employment and unemployment: A social-psychological analysis, 1, CUP Archive.

Jassen, P. P. M., Scahufeli,W. B., &Houkes, I. (1999). Work-Related and Individual Determinants of the Three Burnout Dimensions. *Work and Stress*, 13(1), 74-86.

Jenkins, R., & Elliott, P. (2004). Stressors, Burnout and Social Support: Nurses in Acute Mental Health Settings. *Nursing and Health Care Management and Policy*, 48(6), 622-631.

Jose, M., Lopez, M.O., Santiago, J., Castro,C ., &Villardefranco,E . (2010).Stressors Rendering School Coexistence Difficult, Personal Variables and Burnout: Towards An Explanatory Model. *European Journal of Education and Psychology*, 3(2), 299-316

Judge, T. A., & Colquitt, J. A. (2004). Organizational justice and stress: the mediating role of work-family conflict. *Journal of Applied Psychology*, 89(3), 395-404.

Karatepe, O.M., Uludag, O. (2008). Affectivity, Conflicts in the Work-Family Interface, and Hotel Employee Outcomes. *International Journal of Hospitality Management*, 27(1), 30- 41.

Kellermanns, F.W. ,&Eddleston, K.A. (2007). Destructive and Productive Family Relationships: A Stewardship Theory Perspective. *Journal of Business Venturing*, 22(4), 545-565.

Kellermanns, F.W., &Eddleston, K. (2004). Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice*, 28(3), 209-228.

Kellermanns, F.W., &Eddleston, K., (2007). Family perspective on when conflict benefits family firm performance. *Journal of Business Research*, 60(1), 1048-1057.

Lazarus, R. S., &Folkman, S. (1984). Stress, appraisal and coping. New York: Springer

.Lee, K. J., Um, C. C., & Kim, S. (2004). Multiple Roles of Married Korean Women: *Effect on Depression. Sex Roles*, 51(7-8), 469-478

Lee, R. T., &Ashforth, B.E. (1996).A Meta-Analytic Examination of the Correlates of the Three Dimensions of Job Burnout. *Journal of Applied Psychology*, 81(2), 123-133

Leiter, M.P., & Maslach, C. (2009). Nurse Turnover: *The Mediating Role of Burnout Journal of Nursing*

Management, 17(3), 331–339

Lingard, H. (2004). Work and Family Sources of Burnout in the Australian Engineering Profession: A Comparison of Respondents in Dual and Single Earner Couples, Parents and Non-Parents. American Society of Civil Engineers. *Journal of Construction Engineering and Management*, 130(2), 290 - 298.

Lo, S., Stone, R ., & Ng, C. W. (2003) Work-Family Conflict and Coping Strategies Adopted by Female Married Professionals in Hong Kong. *Women in Management Review*, 18(3), 182-190

Major, V.S., Klein, K.J., & Ehrhart, M.G. (2002). Work Time, Work Interference with Family, and Employee Distress. *Journal of Applied Psychology*, 87(3), 427-436.

Maslach, C. (1993). Burnout: A Multidimensional Perspective. In W. B. Schaufeli, C. Maslach & T. Marek (Eds.), Professional Burnout: Recent Developments in Theory and Research. Washington: DC: Taylor and Francis

Maslach, C., Schaufeli, W.B., Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, 52(1), 397-422.

Maslach, C. & Jackson, S.E. (1981).The Measurement of Experienced Burnout. *Journal of Occupational Behavior*, 2(2), 99-113.

Muldary, T.W. (1983). Burnout and Health Professionals: Manifestations and Management. Capistrano Press Ltd. USA

Netemeyer, R. G., Alejandro, B.T., &Boles, J.S. (2004). A Cross-National Model of Job Related Outcomes of Work-Role and Family Role Variables: A Retail Sales Context. *Journal of the Academy of Marketing Science*, 32(1), 49-60.

Netemeyer, R. G., McMurrian, R., & Boles, J.S. (1996). Development and Validation of Work-Family Conflict and Family-Work Conflict Scales. *Journal of Applied Psychology*, 81(4), 400-410.

O'Leary, K., Griffin, A. M., &Glew, D. J. (1996). Organization-Motivated Aggression: A Research Framework. *Academy of Management Review*, 21(1), 225-253

Robinson, S. L., & Bennett, R. J. (2000). Development of a Measure of Workplace Deviance. *Journal of Applied Psychology*, 85(3), 349-360

Russell, D. W., Altmaier, E., & Velzen,V. D. (1987). Job-Related Stress, Social Support, and Burnout among Classroom Teachers. *Journal of Applied Psychology*, 72(2), 296-302.

Sauter, S. L., & Murphy, L. R. (Eds.).(1995). Organizational Risk Factors for Job Stress. Washington, DC: American Psychological Association

Schaufeli, W. B. (2003). Past Performance and Future Perspectives of Burnout Research. *South African Journal of Industrial Psychology*, 29(4), 1–15.

Shirom, A., Melamed,S., Toker, S. Berliner, S., &Shapira, I. (2005). Burnout and Health Review: Current Knowledge and Future Research Directions. *International Review of Industrial and Organizational Psychology*, 20, 328-340

Solomon, C. (1994). Work Family's Failing Grade: Why Today's Initiative Aren't Enough. *Personnel Journal*, 73, 72-87

Spector, P. E., & Fox, S. (2005). The Stressor-Emotion Model of Counterproductive Work Behavior. In S. Fox & P. E. Spector (Eds.), Counterproductive Work Behavior: Investigations of Actors and Targets (pp. 151-174). Washington, DC: American Psychological Association.

Taris, T.W., Peeters, M.C., Le Blanc, P.M., Schreurs, P.J.G., &Schaufeli, W. B. (2001). From Inequity to Burnout. *Journal of Occupational Health Psychology*, 6(4), 303-323.

The American Heritage Dictionary of the English Language, Fourth Edition. 2000. April 10, 2016 (http://dictionary.reference.com/search?q=stress).

The American Institute of Stress.(2009). Job Stress Questionnaire. Retrieved April 10, 2016, from http://www.stress.org/topic-workplace.htm

Tsai, W. C., & Huang, Y. M. (2002). Mechanisms linking employee affective delivery and customer behavioral intentions. *Journal of Applied Psychology*, 87(5), 1001-1008.

Vardi, Y., & Weitz, E. (2003). Misbehavior in organizations: Theory, research, and management. Psychology Press.

Wallace, J. E. (2005). Job stress, depression and work-to-family conflict: A test of the strain and buffer hypotheses. *Relations Industrielles / Industrial Relations*, 6(3), 510-539.

IMPACT OF MANAGERIAL ENTRENCHMENT AND GROUP AFFILIATION ON DIVIDEND POLICY IN EMERGING ECONOMY OF PAKISTAN EMPIRICAL EVIDENCE FROM KSE LISTED NON-FINANCIAL FIRMS

MUHAMMAD ANJUM FAREED
Pakistan Institute of Development Economics, Islamabad
ARSHAD HASSAN
Capital University of Science and Technology, Islamabad, Pakistan

ABSTRACT

For analysis of managerial entrenchment hypothesis, insider's ownership (MSO) is divided into three parts, i.e., MSO less than 25%, between 25% and 50% and above 50%. For data analysis Random effect model and Tobit model are used. Many studies have shown the linear relationship among managerial ownership and firm's performance but a very few studies documented a non linear relationship in literature (Farinha, 2002; Chen et al., 2005). The study presented a non linear relationship between insiders' ownership and dividend policy, i.e. at low level (MSO< 25%) a negative relationship exists which proves the agency theory hypothesis, whereas above this level (MSO>25%) a significant positive relationship is documented which is backed by the managerial entrenchment hypothesis, as at high level of MSO "resource extraction" and above 50% level "expropriation of minority rights" exist. Group affiliation (ASSO) is also included to see the impact on dividend policy and results reveal a significant negative relation between group affiliation and dividend policy.

INTRODUCTION

Dividend policy is one of the most controversial issues and highly researched area in corporate finance literature since Joint Stock Companies came into existence. Many researchers try to uncover the issues regarding the dividend behavior or dynamics and determinants of dividend policy but still no acceptable explanation for the observed dividend behavior of firms has been finalized (Black, 1976; Allen & Michaely, 2003; Brealey & Myers, 2003).

Research on dividend payout started by Lintner (1956) who argued that to maintain a long run payout ratio firms follow smooth dividend payments in United States. Subsequently, Miller and Modigliani (1961) and Black (1976) developed theory on dividend payout. Afterwards, financial specialists and economists have been working on this most controversial issue to solve the dividend puzzle over a half century but it is still an unresolved issue which needs further discussion. It is considered one of the issues that are still the subject of debate among both academics and practitioners. "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that don't

fit together" (Black, 1976). As Black (1976) raises the question, "Why do firms pay dividends"? Further he raises a second question, "Why do investors pay attention to dividends?" Brealey and Myers (2005) stated that dividend policy is among one of the top ten key unsolved issues in financial economics.

There is a difference of objectives of corporate shareholders and mangers which is termed as Agency Conflict. Shareholders are the owners of firms and they demand a positive high return on their investment, while the managers have others goals, such as attaining power advantages and prestige of running a large organization, enjoying services (entertainment) and other perquisites of their position. In this situation, managers have superior access to inside information and powers of their position which means that mangers will have an upper hand and thus agency problem will arise between mangers and shareholders. Another important perspective in case of Pakistan that most of firms are owned by family investors, institutional investors or foreign investors that means having insider control or concentrated ownership structure. It generates a new agency conflict named as "expropriation of minority shareholders by majority shareholders" which exists among small shareholders

and controlling (large) shareholders as they will affect the dividend or reward of small shareholders because controlling owners can confiscate the real information (value) from small shareholders (Javed & Iqbal, 2010).

"Agency theory" which states that dividend is a source to reduce the costs arising due to manager-shareholder conflict of interest. Dividends also perform as a controlling function which monitors the activities of firm's management (Rozeff, 1982; Easterbrook, 1984; Jensen, 1976). Jensen (19s76) argues that firms which used to pay dividends regularly reduce extra funds available under managerial control and thus problem of investment in less profitable projects can be resolved. In corporate finance literature mitigating agency cost through dividend payout policy is recent development.

Corporate dividend policy seems to be effected by ownership structure of firms as it is considered as an important influencing variable. In Pakistan, ownership structure is opposite to dispersed ownership structure of Anglo- American as corporations are mostly owned by concentrated family ownership structure. Jensen and Meckling's (1976) work on corporate ownership literature highlighted the issue of separation of ownership control, which results the conflict among the shareholders (Principle) and managers (Agents). Jensen and Meckling (1976) argue that managerial share ownership in a firm helps to remove the agency problem and align the interests of shareholders (owners) and managers. There is an argument which exists that managers get entrenched when managerial share ownership crosses a high level and it results in agency problems (Demsetz, 1983; Fama and Jensen, 1983; Chen et al. 2005). Dividend is a voluntary payment in Pakistan and it needs to be explored thoroughly and this study focuses on the determinants of dividend policy with main focus on managerial ownership and group affiliation.

LITERATURE REVIEW

Theoretical Review on Role of Corporate Governance and Dividend Policy

Starting from most authenticated work of Lintner (1956) who developed a mathematical model to study how U.S. industrial firms make dividend decisions, based on survey study. He concluded that most important factors that influence the dividend payment pattern of firms are current year earnings and lagged year dividends. Miller & Modigilani (1961) are two focal names when debate of dividend theories is discussed.

Miller and Modigliani (1961) presented "MM irrelevance theory" and assumed that dividend payments have no impact on firm's value by following perfect capital market conditions because shareholders are more concerned about the firm's investment polices as compared to dividends or capital gains. Before MM irrelevance theory, it was believed that dividend payments do matter and affect firm value. Dividend relevance theory is considered as "Bird in hand theory". Gordon and Walter (1963) explained the investor's preference towards cash in hand, due to uncertainty in world, because different stakeholders have imperfect information and to minimize the risk they avoid future promises of capital gain.

Corporate ownership literature got momentum from the influential work of Jensen and Meckling (1976). They presented the "Agency Theory" which is based on conflict of interest that arises due to separation of principle (e.g the shareholder/owners) and agent (e.g the management of company). This conflict of interest creates the high agency costs as different stakeholders are interested to maximize their own personal goals, even sometimes at other's expense. Shareholder's primary object is maximization of share value while managers have other goals, such as attaining an upper hand which offers a powerful position, entertainment, having superior access to inside information or some other perquisites. In this situation, managers (agents) may be involved in such actions which may be against the rights of principle (shareholders). The dilemma of asymmetric information may be another cause of agency conflict as all parties are involved in different information sharing.

Bhattacharya (1979) explained "Signaling theory" as this theory is based on information asymmetries and dividends can mitigate the information asymmetry between managers and shareholders and provide inside information of firm's future prospects to outsiders. Managers are responsible for dealing with firm's day to day operations and they have more complete information about real worth of firm than shareholders and this information may be shared to outsiders through following an appropriate dividend policy. Therefore, dividends can be used as a tool to convey information to market and to foster trust between shareholders and corporate managers through reducing information asymmetries.

The next theory is "Free cash flow theory" which is connected with agency theory. According to free cash flow theory, free cash flows refer to primarily amount that is left after investing in all projects having positive net present value and is available for shareholders as dividends distribution. Corporate managers are hired for smooth running of business so managers are supposed

to work with a prime objective of maximization of shareholders' wealth. But sometimes, these managers are involved in inefficient utilization of funds through investing in negative NPV projects or prefer their own interest at shareholders' expense. Jensen (1986) related this hypothesis with agency theory and declared it as an overinvestment problem as adequate free cash flows don't always allow management to invest in positive NPV projects. He suggested the solution of overinvestment problem by reducing amount of free cash flows through distributing dividends to shareholders.

Miller and Scholes (1978) discussed the Tax preference theory, which states that investors set different portfolios in selection of dividend or capital gain due to different tax rates levied on dividends and capital gain. Dividends tax rates are high as compared to capital gain tax rate and dividend are taxed directly, on the other hand capital gains are taxed at the time of sale of stock and investors who don't sell their shares will pay capital gain tax in a year in which they sell out their shares. Therefore, investors don't prefer cash dividends due to tax related reasons.

Review of Empirical Studies (International Evidence)

For the past few decades, a number of theoretical models have been proposed by academicians and researchers to explain the determinants of dividend policy. Jensen (1986) argued based on the agency theory that the conflict of interest between managers (agents) and external shareholders (owners) can be reduced through distribution of dividends to shareholders as this will result in no expropriation of retained earnings by managers. Managers follow the growth opportunities and want to retain the profits instead of paying dividends. But shareholders want cash dividends instead of retained earnings. On the other hand, managers try to retain more profits to get much control over resources of organization. Thus, in case of low dividend payments more resources will accumulate and managers may use these resources for their personal well being or they may be involved with investing in unprofitable projects of negative NPV.

Jensen et al. (1992) used three stage least square (3SLS) to examine interdependence between the determinants of level of managerial ownership, dividend and leverage levels by using a cross-sectional firm data. They applied and split data into two segments of time, 565 firms for 1982 and 632 firms for 1987. They argued that insider ownership has significant affect on dividend policy and debt level of firms. Profitability was positively related with dividend payouts, while growth and investment opportunities have negative impact on dividend.

.In case of Jordanian economy Al-Malkawi (2007) studied the main inflectional factors of dividend policy of listed firms at Amman Stock Exchange (ASE) over a period of 1989 to 2000. The findings of research showed that stocks held by insiders and government ownership has significant affect on dividend policy. He also argued that firm size, profitability and age are main influential factors for dividend decisions.

Dividend Policy and Corporate Governance Practices in Pakistan

In Pakistan, rights of minority share holders are exploited by majority shareholders. In business affairs, in case of any misconduct by other shareholders, only the shareholder having 20% shareholding in company can go to a court and may ask for help. Furthermore, a shareholder having 10% shareholding can only file a complaint against the issue to SECP.

According to Ahmed & Javid (2010) corporate investor ownership has a significant relationship with dividend growth in Pakistan. They used a sample of 50 KSE-100 index non financial firms over a period of 2001 to 2006 to explain the firm's ownership structure and dividend payouts association. No significant link was observed between institutional ownership, director ownership and dividend payouts, but a positive relationship was found among sales and earnings growth with dividend payments.

Afza & Mirza (2009) conducted a study in emerging market of Pakistan to find out the impact of institutional ownership i.e. insurance companies ownership, national investment trust ownership, mudarbah ownership and miscellaneous institutional ownership on dividend payout. They applied OLS technique for analysis of data. They found that growth opportunities and leverage are negatively related with dividend payouts and firm size and profitability are positively related with dividend payouts. Modarba ownership has no significant impact in determination of dividend policy as modarba business is not yet developed in Pakistan.

Shah Ullah and Hasnain (2011) carried out a research to determine the effect of ownership structure on dividend policy of listed firms at KSE. Using common effect model, they concluded that managerial ownership significantly affects the dividend policy. In case of high managerial ownership, corporate dividend payout is also high, while minority shareholders have no affect to change the dividend payout decisions of firms listed at KSE. Afza et al. (2010) explained that firms which have large board size pay high amount of dividends and also follow a regular dividend payout

policy. No significant impact has been found between board independence and payout ratio. Mehar (2005) empirically explained that in Pakistan, firms make dividend payout decision after payments of taxes, thus dividend payout is less than that of other emerging markets and it is also argued that more often than not dividends are distributed to favor the managers rather than the shareholders.

Afzal and Sehrish (2011) investigated the impact of corporate governance practices and corporate dividend policy by examining a sample of 42 KSE listed non-financial firms in Pakistan. Corporate dividend is used as dependent variable and ownership structure and board composition as independent variables. Using OLS regression, logit and probit models they concluded a significant positive relationship between individual ownership, board size, firm size and investment opportunities with dividend payouts. Profitability shows a positive relation with dividend payouts as they also found some stable companies which regularly distribute a specific portion of earnings as dividends.

Insider Ownership (MSO)

Insider ownership / managerial ownership is meant to be the sum of proportion of managers, executives, directors and their families divided by the total capital shares of the firm. These insiders are family owned firms or the majority shares held by the management. In review of different studies mixed results are found regarding insider ownership and dividend policy. Hussain and Saleem Ullah (2011) argue that as insider ownership increases, insider owners get more power and board control which results in high amount of dividend payments. This argument is termed a resource extraction hypothesis.

Whereas, other researchers argued that if insiders increase MSO in the firm, agency costs may be reduced as it will result in aligned interests as well as removal of interest conflicts among management and shareholders. Similarly, dividend-induced monitoring won't be needed, but because their larger stakes give them more power to retain profits inside the firm. In this case, to reduce the agency costs lesser funds would be sufficient for payment of high dividends (Jensen and Meckling, 1976; Jensen et al., 1992: Al-Malkawi, 2007). Thus, insider stock ownership and dividend policy are viewed as substitute means of addressing potential agency problem.

Hypothesis 1. All else equal, there is a significant relationship (positive/ negative) influence of insider ownership on dividend payout.

Managerial Entrenchment

Empirical studies have shown that managerial ownership is not a linear function of agency costs. Shleifer and Vishny (1988) found that managerial ownership is related to company's performance in a nonlinear way so dividend policy may be affected accordingly. Farinha (2002) argued a U-shaped relationship between managerial ownership and dividend payout in the UK.

In equation (2), we allow for non-linearity in the relationship between corporate payout and ownership percentage of the controlling shareholder. For analysis of different insider's ownership we have divided our sample into three parts present MSO less than 25%, between 25% and 50% and above 50%. It is assumed at low level insiders, ownership an MSO and dividend policies are being used as substitute of corporate governance, so less will be needed for dividend payments.

On the other hand above a critical entrenchment level, dividend policy may play the role of a monitoring mechanism, mitigating entrenchment-related agency costs. Therefore, above the entrenchment level, a positive relation exists between dividend payout and insider ownership.

Hypothesis 2. All else equal, there is a significant negative relationship between managerial ownership and dividend payments below an entrenchment level and positive relationship above that level.

Business Group Affiliation (ASSO)

Pakistan is a developing country and high concentrated ownership exists in corporate environment. The "Business Groups" is a term used to describe the family owned and controlled firms as defined by Gani and Ashraf (2005). In an agency framework, a higher ownership percentage of group companies and group affiliation should reduce agency conflict between shareholders and managers. In this case, dividend policy may become less important as a monitoring tool.

Hypothesis 3. All else equal, there is a negative influence of group affiliation (ASSO) on dividend payout.

In this study 40 group businesses have been identified in Pakistan (See Appendix A). In our sample of 120 firms total 47 firms have been identified as group affiliated firms. List of sector wise affiliated firms is provided in data collection method. A dummy variable has been used in this study taking the value of 1 (one) if company is

affiliated to a business group and zero (0) otherwise.

Control Variables

Firm size

Sajid et al. (2012) reported positive association between size and dividends of Pakistani firms. Large firms feature greater information asymmetry as a result of the dispersion of ownership. Thus, a large dividend payout ratio can be one solution for this problem. Thus, the following hypothesis is formulated in relation to firm size:

Hypothesis 4. There is a positive relationship between firm size and dividend policy.

Leverage

The level of financial leverage negatively affects the dividend policy of a firm. Al-Kuwari (2009) found that the leverage ratio is significantly and negatively associated with the dividend payout ratio. So following hypothesis is proposed:

Hypothesis 5. There is a negative relationship between firm financial leverage and dividend policy.

Growth Opportunities

According to La Porta et al. (2000), some firms have fewer growth opportunities but tend to pay higher dividends to prevent managers from over-investing the cash available to the firm. Sajid et al. (2012) found positive association between dividend payout ratios and growth. Hence, based on the previous discussion, our hypothesis is:

Hypothesis 6. There is a positive relationship between firms' growth and dividend policy.

Profitability

The decision to pay dividends starts with profits. Lintner (1956) found that a firm's net earnings are main determinants of dividend changes. Al-Kuwari (2009) found a statistically significant and positive relationship between profitability and the dividend payout ratio. Based on both theory and empirical evidence, the study hypothesizes is:

Hypothesis 7. There is a positive relationship between firms' profitability and dividend policy.

RESEARCH METHODOLOGY

This section provides the analytical framework for empirical testing of hypothesis formulated in section 3 and data used to test these hypotheses

Methodological Framework

To test the impact of ownership structure and corporate governance on the dividend policy of firms listed on Karachi Stock Exchange, two models are developed by following Al Kuwari (2009). In Model 1 we included group affiliation firm's control variables specially to analyze the impact of insiders' ownership. For analysis of different insider's ownership we have divided our sample into three parts present MSO less than 25%, between 25% and 50% and above 50%. Therefore, the two models are:

Model 1

DIV = f (MSO, ASSO, SIZE, LEV, GROW, PROF)

Empirical Specification of the Models

In this equation (1), we analyzed the effect of various Insider ownership and group association on dividend policy. So, equation 1 is as follows:

$$Div_{(i,t)}=\beta_o+\beta_1 MO_{(i,t)}+\beta_2 FS_{(i,t)}+\beta_3 LEV_{(i,t)}+\beta_4 GROW_{(i,t)}+\beta_5 ROA_{(i,t)}+\beta_6 ASSO_{(i,t)}+u_{(i,t)}\ldots\ldots(1)$$

Managerial Entrenchment and Dividend Policy

In this equation (2) analysis explain the effect of various levels of Insider ownership dividend policy. So, equation 2 is as follows:

$$Div_{(i,t)}=\beta_o+\beta_1 MO_{(i,t)}+\beta_2 MO_{(i,t)}+\beta_3 MO_{(i,t)}+\beta_4 ASSO_{(i,t)}+\beta_5 FS_{(i,t)}+\beta_6 LEV_{(i,t)}+\beta_7 GROW_{(i,t)}+\beta_8 ROA_{(i,t)}+u_{(i,t)}\ldots\ldots (2)$$

β = Coefficient (Parameter)
$u(i,t)$ = Error Term

Technique of Estimation

This study covers the data of 125 firms for the period of eleven years; therefore it is appropriate to use panel data estimation technique. In panel data, observations on different cross-sectional units over several time periods are pooled together, which allows to increase the sample size and increasing the degrees of freedom.

This study used static analysis i.e. fixed effect model and random effect models. Housman specification test is

applied to check whether FEM or REM provide correct specifications under null hypothesis, that individual effect are uncorrelated with other regressors' in model. So if the null hypothesis is rejected then FEM is preferred otherwise REM.

In case of Pakistan, many companies do not pay dividend at all, and even those who pay dividend may have negative income in any time period so there will be negative dividend payouts which makes no sense. Therefore OLS estimates of coefficients might be inconsistent and biased towards zero (Al-Malkawi, 2007). To handle this issue, present study has used Tobit model which is supported by existing financial researchers Maddala (1992) because the dividend distribution is censored from below at zero.

Data Collection Source and Sample Selection

To explore the relationship of ownership structure, board characteristics on dividend policy, the study used the data of 125 non- financial listed firms at Karachi Stock Exchange. The data set of study is derived from annual reports of companies listed at Karachi Stock Exchange and Balance Sheet Analysis of KSE published by State Bank of Pakistan of manufacturing sector (non-financial firms) over a period 11 years covering 2003 to 2013. Firms of different ownership structure are included in this study. Data of ownership variables were collected manually from annul reports of listed companies. Data includes various sub sectors of the manufacturing sector of Pakistan which consists of Textile, Cement, Telecommunication, Paper Board, Food, Chemicals, Paper, and Motor Vehicles etc. The analysis and data collection are started from 2003 because data of detailed ownership structure was reported first time in 2003 after implementation of Code of Corporate Governance 2002.

Summarizing data for this research have been collected from two sources:

i)   Annual reports of the listed companies

ii) Balance Sheet analysis of non-financial companies listed at KSE issued by State Bank of Pakistan

Major Business Groups in Pakistan

In this study 40 group businesses have been identified in Pakistan (See Appendix A). In our sample of 125 firms, total 47 firms have been identified as group affiliated firms which include as follows

Major Business Groups in Pakistan

Sr. No	Name	No. of Firms
Sector No. 1	Textile: Spinning, Weaving, Finishing of Textile	17
Sector No. 2	Food Products sector	7
Sector No. 3	Chemicals, Chemical Products & Pharmaceuticals	4
Sector No. 4	Manufacturing sector	9
Sector No. 5	Motor Vehicles, Trailers &Autoparts	5
Sector No. 6	Electrical Machinery & Apparatus	3
Sector No. 7	Misc. sector (other services)	2

Variable Description & Construction

Based on different empirical studies we have selected a number of variables that may influence the dividend payout policy.

i. Measurement of Dependent Variable

A firm can retain or distribute its earnings among shareholders; however it should use the decision that maximizes its market value. We have used two dependent variables to answer the research questions. In this study, a dividend per share is used to measure the dividends behavior of a firm. Dividend payout is used as a proxy for dividend policy, as different researchers have used this proxy to explain the dividend policy (Ahmed &Attiya, 2009: Al-Malkawi, 2007).

Dividend Per Share = Total Amount of Dividend / Total Outstanding Shares

Dividend payout Ratio = Dividend per Share / Earnings per Share.

ii. Measurement for Independent Variables

Insider ownership:

Insider ownership is calculated as percentage shares held by managers, executives, board of directors, and their families including spouse and minor child to total number of shares outstanding (Rozeff, 1982; Al-Malkawi, 2007).

Insider ownership (MSO) = Total shares held by directors and CEOs, and families / Total no. of shares

Insider ownership: Different Levels

Insider ownership is calculated as percentage shares held by managers, executives, board of directors, and their families including spouse and minor child to total number of shares outstanding (Rozeff, 1982; Al-Malkawi, 2007).To check the Insiders' Entrenchment, whole sample is divided into three parts

Insider ownership (MSO) = Total shares held by directors and CEOs, and families / Total no. of shares i.e. MSO less than 25%, between 25% and 50% and above 50%.

Control Variables

Size of the firm

The size has been taken as a control variable and measured in terms of assets by taking the log of total assets.

Size of Firm (FS) = Natural log of Total Assets

Growth of the firm

Growth of the firm is another important determinant of dividend payout policy and it is calculated as market to book ratio.

Growth (GROW) = Market to Book ratio

Leverage

Leverage is used as a control variable and calculated by ratio of total liabilities to total assets Al-Kuwari (2009).

Leverage (LEV) = Total liabilities/ Total Assets

Profitability

It is an important explanatory variable of dividend policy Al-Kuwari (2009).

Profitability (ROA) = Profit after depreciation, interest and tax / Total Assets

Group Affiliation

Dummy Variable Group affiliation "1" if a firm is affiliated with a major business group, "0" otherwise

RESULTS AND DISCUSSION

This section presents the empirical results. Regression results of different models are examined using data of 125 non-financial firms for the period of nine years: 2003 to 2013.

Descriptive Statistics

TABLE 1
Descriptive statistics

Variables	Mean	Median	Max	Min	Std. Dev.
Dependent Variables					
Dividend per share	0.488	0.100	17.498	0.000	1.250
Dividend Payout Ratio	0.242	0.115	5.790	-5.650	0.564
Firm characteristics					
Firm Size	3.537	3.558	5.617	0.708	0.724
Leverage	3.649	1.340	331.480	-115.080	24.753
Growth	14.567	4.500	707.884	0.040	47.864
Return on assets	0.080	0.064	2.052	-6.830	0.242
Ownership Structure					
Insider ownership	0.275	0.250	0.900	0.000	0.224
Group Affiliation	0.400	0.000	1.000	0.490	0.247

The descriptive stats of dependent variable with all of the explanatory variables have been performed for the period of 2003 to 2011 on the sample of 100 non financial manufacturing firms of Pakistan listed at KSE.

Table 1 shows the means, medians, standard deviations; maximum and minimum values of our key variables of combined sample of study (125 firms). The mean value of dividend paid per share is 0.48 and the median is o.10. The maximum amount of dividend per share is 17.49. The mean value of dividend payout ratio (DPR) is 0.24 which is lower as compared to developed countries. On the other hand, profitability and growth are on higher side relative to dividend yield indicating that firms earning more have the ability to pay more in the form of dividend payout but firms are not inclined to make dividend payments indicated by lower actual dividend yield. An additional striking result is higher leverage ratio. Debt to equity ratio is on average 3.46 indicating total debt is 3.46 times of total equity i.e. almost 3.5 times of equity indicting that Pakistani manufacturing firms rely heavily on debt rather than equity. This may be the reason of not making dividend payments. Even then firms rely heavily on debt financing rather than equity means a higher retention of earnings by management reflecting that managers retain earnings to maintain their business liquidity requirements. Insider ownership is on average 0.27 and maximum 0.90, whereas, group affiliation is 0.40 on average.

Correlation Matrix

The correlation matrix shows the relationship between the dependent and explanatory variables. The results obtained in this study are reported in Table 2 from the correlation matrix are as follows: The primary purpose of correlation analysis is to identify potential determinants of dividend payout policy. Secondly, it is also meant to detect multicolinearity in the data. It indicates the absence of multicolinearity problem due to the low or moderate degree of correlation between the independent variables.

Firm Specific Determinants of Dividend Policy

The results show that dividend per share has a positive and significant relation with return on assets, firm size and growth opportunities and negative relationship with leverage. As, the dividend per share has positive and significant relation to the size of the firms (0.25) indicating that the size of the firm has a positive impact on dividend yield. The dividend per share has positive but non-significant relation with leverage (0.003). In case of investment opportunities and profitability, the dividend per share has positive and significant relation with new investment opportunities (0.78) and return on investment (0.21). MSO is found to have negative correlation with dividend payout and dividend per share in Pakistan. The negative correlation between MSO and dividend proxy in Pakistan is in line with the existing empirical evidences reported by Afza and Mirza (2010). Group affiliation is also negative with dividend policy

Results of REM & Tobit model

Table 3 presents the results of two estimation techniques for the dividend payout policies, using Equation (1) for Random effects Model in first column the haussman Test shows P value at 0.12, which shows the acceptance of REM over the FEM among the Panel data estimations. The model shows the adjusted R^2 at 0.54 which means 54% of dependent variable part is being explained by the independent variables.

Column 4 of table 3 shows the results of equation (1) for tobit model. This model is used because of the issue that dividend payouts could not be negative, these may be positive or zero. So, tobit model is better choice as this makes the data censored from below at zero. The results are in line with random effect model estimations.

Control Variables and Dividend Policy Results

The results in Tables 3 and table 4 show that there is a significant and positive relationship between firm size and dividend payment decision, at the 99% confidence interval. This result is in line with previous studies, that larger firms are capable of paying larger dividends (Jensen et al., 1992; Al- Malkawi 2005). Another explanation for this positive association might be related to large firms' easier access to capital markets, and their ability to raise funds with lower issuance costs for external financing.

The relationship with leverage is significantly negative in equation 1 and 2 so that companies with high debt will least likely be involved in paying dividends (Jensen et al. 1992), which is in line with the agency theory of debt. This means that if the leverage ratio of a firm is increased, the dividend payout ratio paid by the firm decreases. The reason for this negative association is that highly leveraged firms carry a large burden of transaction costs from external financing. In this case, firms need to maintain their internal source of funds to meet their duties, instead of distributing the available cash to shareholders as dividends (Al-Malkawi, 2005).

TABLE 2
Correlation between Firm Specific Variables and Dividend yields

Correlation	DPS	DPO	FS	LEV	MBR	ROA	MSO	ASSO
Dividend per share	1.00							
Dividend Payout	0.28	1.00						
Firm Size	0.25	0.13	1.00					
Leverage	0.003	0.00	0.02	1.00				
Growth	0.78	0.15	0.18	0.01	1.00			
Return on assets	0.21	0.13	0.14	0.00	0.15	1.00		
Insider ownership	-0.07	0.04	-0.20	0.07	-0.12	-0.10	1.00	
Group Association	-0.09	-0.14	0.06	0.06	-0.04	-0.16	-0.13	1.00

TABLE 3
Managerial Ownership, Group Association and Dividend Policy

Variables	Equation (1)			
	REM DPS		TOBIT DPO	
	Coefficient	T value	Coefficient	T value
Constant	-0.373**	, -2.45	-0.083	-0.969
Firm Size	0.158***	3.983	0.086***	3.734
Leverage	-9.94E-05	-0.117	-5.47E-05	-0.061
Growth	0.014***	34.213	0.001***	3.982
Return on assets	0.139**	2.500	0.161***	2.662
MSO	0.090	0.705	0.148***	2.297
ASSO	-0.100	-1.322	-0.126***	-3.974
Adjusted R-squared	0.540762			
D - W stat	0.94			
F-statistic	213.7383			
Prob(F-statistic)	0			
Hausman Test	0.12			
Akaike info criterion			1.47771	
No. of Firms	125		125	
No. of Observations	1375		1375	

***,**. and * denote significance at 1 percent, 5 percent, and 10 percent respectively

The estimated coefficient for growth opportunities shows the significant positive relation between dividend payout and dividend per share and it is also significant at 95% confidence interval as p value is less than 0.05 and t value is 3.98. These results are consistent with La Porta et al. (2000), who had argued that in countries with low legal protection for investors, dividend payouts are high in order to establish a strong reputation and to get better investment opportunities. Some firms have fewer growth opportunities but tend to pay higher dividends to prevent managers from over-investing the cash available to the firm (Sajid et al., 2012). Thus payment of dividends will help in mitigating the agency cost of free cash flow.

In this study ROA has a significant positive relationship with dividend policy and results show the positive relation at 95% confidence interval. This seems more logical because companies which earn more profits would be more willing to pay dividends. This result is in line with the signaling theory of the dividend policy. Therefore, the more profitable the firm is, the higher the possibility to pay dividends (Al-Kuwari, 2009; Amidu et al., 2006).

Results of REM and Tobit model show a positive and significant association between managerial ownership and dividend policy, which shows that agency theory hypothesis, does not hold. Group affiliation of companies shows a negative association with dividend policy which means agency theory hypothesis holds and less information asymmetry exists.

Managerial Entrenchment and Dividend Policy Results

In table 4, equation (2) is estimated and we presented results for both random effect model and tobit model to show the different levels of insiders' ownership and its impact on dividend policy effects; the results have been shown in three different columns in order to analyze the individual effect of each insiders' ownership level.

The results of table 4 show that large insider controlling shareholders (ownership percentage above 25%) are successful in extracting relatively large resources from the company through dividend payments and this relationship is significant at 95% confidence interval with a t- value 2.65; which is in line with the resource extraction argument. There is also a significantly negative relationship between dividend payout and controlling shareholder's ownership below 25%. These results indicate that below an entrenchment level insider ownership and dividend policies are being used as substitute corporate governance devices, therefore, leading to a negative relationship between these two variables and hence, dividend policy may become less important as a monitoring tool.

These findings are in the line with those documented by Chen et al. (2005) who found a negative relation between dividend payouts and family ownership up to 10% of the company's stock and a positive relationship for ownership in the 10 to 35% range for a sample of publicly listed, small market capitalization firms.

TABLE 4
Managerial Entrenchment

Variables	Equation 3 (4.3.3)					
	REM	TOBIT	REM	TOBIT	REM	TOBIT
	DPS	DPO	DPS	DPO	DPS	DPO
Constant	-3.23***	0.27***	-2.52	-0.45**	-2.38**	1.26***
	-6.502	3.049	-3.212	-2.176	-1.757	3.879
Firm Size	0.497***	0.003	0.030	0.085*	0.480	-0.145***
	4.128	0.143	0.181	1.738	1.617	-2.272
Leverage	-0.200***	0.002	-0.094	-0.001	-0.176*	0.001
	-2.895	1.356	-1.293	-0.465	-1.928	1.121
Growth	0.010**	0.001***	0.06***	0.007**	0.111***	0.004
	2.245	3.863	5.823	2.176	3.804	0.941
Return on assets	4.651***	0.656***	5.168***	0.295*	0.638	0.026
	6.578	5.769	4.140	1.646	0.762	0.368
MSO < 25%	-0.425	-0.639***				
	-0.305	-2.780				
MO >25% <50%			1.140	1.008***		
			0.881	2.653		
MO > 50%					-1.478	-0.752***
					-1.565	-2.704
ASSO	0.099	-0.186***	0.297	-0.153***	-0.630*	-0.209***
	0.654	-5.564	1.583	-2.718	-1.943	-2.762
Adjusted R-sq	0.31		0.34		0.32	
D - W stat	0.97		1.15		0.91	
F-statistic	22.03		13.18		8.14	
Prob(F-stat)	0		0		0.0	
Hausman Test	0.10		0.10		0.10	
AIC		0.89		1.28		1.48
No. of Firms		125	125	125	125	125
No. of Observations	1375	1375	1375	1375	1375	1375

***,**. and * denote significance at 1 percent, 5 percent, and 10 percent respectively.

They are also in line with the finding of Farinha (2002) that, above a critical entrenchment level estimated in the region of 30%, the coefficient of ownership by management changes from negative to positive.

CONCLUSION AND IMPLICATIONS

The dividend policy remains to be a puzzle, even though many studies have proposed to explain why companies pay dividend. This paper aimed to examine dividend policy in an emerging market where insiders' ownership exists and minority shareholders' expropriation exists.

Dividend policy is significantly and positively related with board size, audit quality, firm size, growth opportunities; profitability is documented and empirically tested; whereas, dividend payout is significantly negatively related with leverage. The study also presented a non linear relationship between insiders' ownership and dividend policy as at low level (MSO< 25%) a negative relationship exists which proves the agency theory hypothesis, whereas above this level (MSO>25%) a significant relationship is documented. This hypothesis is backed by the managerial entrenchment hypothesis as at high level of MSO "resource extraction" and "expropriation of minority rights" exist. Group affiliation (ASSO) is also included to see the impact on dividend policy and results revealed a significant negative relation with group affiliation and dividend policy. The investment opportunities have significantly positive relationship with the dividend payout and negative relationship is being observed with leverage. The insider's ownership (CEO shareholdings and directors' shareholdings) has positive and significant relation with dividend payouts.

In case of Pakistan where majority insiders control

exists, the presence of independent directors could be effective because their presence can ensure that the interest of minority shareholders. To improve the protection of minority shareholder, the role of auditors can further be enhanced by making the audit committee of the company more effective. Ultimately, dividend payments are voluntary in Pakistan so Securities and Exchange Commission of Pakistan (SECP) should impose a specific percentage of firm's net earnings, meaning that SECP should be involved in corporate affairs regarding dividend policy.

LIMITATIONS & FUTURE RESEARCH

The study faced the problem of availability of data on ownership variables in Pakistan. Because of lack of specific organized or formal database, which could provide such data of non financial firms listed at Karachi Stock Exchange. So, we have manually collected ownership data from annual reports and websites of every listed company

After reading existing literature, one can understand the complexity of dividend puzzle. We recommend that institutional investors should be focused of future studies especially in case of Pakistan because almost all studies consider institutional ownership as homogeneous and only one study according to our knowledge is conducted by Afza &Mirza (2011). So, it is important to analyze the presence of different types of institutional investors in the corporate ownership and their preferences for the dividend payments. Institutional investors may be banks, modarba companies, insurance companies or mutual funds etc and their preferences for dividend income should be examined.

REFERENCES

Afza,T. & Mirza, H.H., 2010. Ownership Structure & Cash flows as determinants of corporate Governance and Capital Structure: Evidence from Tehran Stock Exchange. *Middle-East Journal of Scientific Research*, 11(4), 531-535.

Afzal, Sehrish. (2011). Ownership Structure, Board Composition, and Dividend Policy in Pakistan *African Journal of Business Management*, 7(11), pp. 811-817

Ahmed, H. and J. Attiya. (2009). Dynamics and Determinants of Dividend Policy in Pakistan (Evidence from Karachi Stock Exchange Non Financial Firms), *International Journal of Finance and Economics*, Issue 25, 148-171.

Al-Kuwari. (2009). Determinants of dividend policy of companies listed in Emerging Stock Exchanges: The case of the Gulf Corporation Council (GCC) Countries. *Global Economy and Finance Journal*, 2(2), 36-63.

Allen &Michaely.(2003). Payout policy.Handbook of Economics of Finance, 1(a), 337-429.

Al-Malkawi. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economics and Administrative Sciences*. 23(2), 44-70.

Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. *The Journal of Risk Finance*, 7(2), 136-145.

Bhattacharya, S. (1979), "Imperfect Information, Dividend Policy and "the Bird in the Hand" Fallacy, *The Bell Journal of Economics*, 10(1), 259-270.

Black, F. (1976), "The Dividend Puzzle", *Journal of Portfolio Management*, Vol. 2, pp. 5-8

Black, F. and Scholes, M. (1974) The effects of dividend yield and dividend policy on common stock prices and returns, *Journal of Financial Economics*, 1(1), 1-22.

Brealey, R. A., Myers, S. C., 2003. Principles of Corporate Finance, 7th edition. McGraw Hill, New York.

Chen, M. (2005) Group affiliation, identity of managers, and the relation between managerial ownership and performance, *International Review of Financial Analysis*, 14(5), 535-558.

Demsetz, H., and K. Lehn. 1985. The Structure of Corporate Ownership: Causes and Consequences. *Journal of Political Economy* 93(6), 1155-1177.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659.

Fama, and Jensen. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, 26(2), 301-325

Farinha, J. (2003). Dividend policy, corporate governance and the managerial entrenchment hypothesis: an empirical analysis. *Journal of Business Finance & Accounting*, 30(9-10), 1173-1209.

Gani, W. I. and J. Ashraf (2005). Corporate Governance, Business Group Affiliation and Firm Performance: Descriptive Evidence from Pakistan. Lahore University of Management Sciences. (CMER Working Paper No 05-35).

Gordon MJ (1963). "Optimal Investment and Financing Policy" *J. Finan*.18 (2):264-72

Iqbal, J., Brooks, R., & Galagedera, D. U. (2010). Testing conditional asset pricing models: An emerging market perspective. *Journal of International Money and Finance*, 29(5), 897-918.

Jensen Et al., (1992 1992), "Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies", *The Journal of Financial and Quantitative Analysis*,

27(2), 247-263.

Jensen M, Meckling W (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *J. Financ. Econ.* 3, 305-360.

Jensen, G. R., Solberg, D. P. and Zorn, T. S. (1992), "Simultaneous Determination of Insider Ownership, Debt, and Dividend Policies", *The Journal of Financial and Quantitative Analysis*, 27(2), 247-263.

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. Corporate Finance, and Takeovers. *American Economic Review*,76(2).

Kim, B., and G. Maddala (1992), "Estimation and Specification Analysis of Models of Dividend Behavior Based on Censored Panel Data," *Empirical Economics* 17, 111-124.

La Porta, Silians, Shleifer&Vishny. (2000). Investor protection and Corporate Governance. *Journal of Financial Economics*, 58(1), 3-27.

Lintner.(1956). Distribution of Incomes of Corporations among Dividends, Retained Earnings, and Taxes. *The American Economic Review*, 46(2), May. pp.

97-113

Maddala, G. S., & Lahiri, K. (1992). Introduction to econometrics (Vol. 2). New York: Macmillan.

Mehar (2005).Corporate Governance and Dividend Policy. *Pakistan Economic and Social Review*, pp.93-106.

Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.

Miller, M. H., & Scholes, M. S. (1978). Dividends and taxes. *Journal of Financial Economics*, 6(4), 333-364.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics*, 20, 293-315.

Rozeff, M. S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of financial Research*, 5(3), 249-259.

Shah, A. Z., & Wasim, U. (2011). Impact of ownership sturcture on dividend policy of firm. In International Conference on E-Business, management & economics. IPEDR. Hong Kong.

APPENDIX # 1
Major Business Groups in Pakistan

1	NISHAT GROUP	21	IBRAHIM GROUP
2	THE SAIGOLS GROUP	22	UNITED GROUP
3	CRESCENT GROUP	23	(SADIQSONS) OF COMPANIES
4	DEWAN GROUP	24	BAWANY GROUP
5	THE HOUSE OF ITTEFAQ	25	SCHON GROUP
6	CHAKWAL GROUP	26	DADA BHOY GROUP
7	SAPHIRE/ GULISTAN	27	RUPALI GROUP
8	HABIB GROUP	28	SITARA GROUP
9	GUL AHMAD / AL-KARAM	29	COLONY GROUP
10	PACKAGES GROUP	30	PREMIER GROUP
11	ATLAS GROUP	31	SHAHNAWAZ GROUP
12	HASHWANI GROUP	32	FAZAL GROUP
13	BIBOJEE GROUP	33	SITARA GROUP
14	DAWOOD GROUP	34	UMER GROUP
15	MONNOO GROUP	35	CALICO GROUP
16	FECTO GROUP	36	ADAMJEE GROUP
17	LAKHANI (LAKSON)	37	TAWAKKAL GROUP
18	SARGODHA GROUP	38	JEHANGIR ELAHI GROUP
19	ALNOOR GROUP	399	KASSIM DADA GROUP
20	GHULAM FAROOQ	40	KOHISTAN GROUP

BREACH OF PSYCHOLOGICAL CONTRACT AND QUALITY OF LIFE; PSYCHOSOMATIC STRAIN AS MEDIATOR AND POWER DISTANCE AS MODERATOR

MUHAMMAD ASAD

Capital University of Science and Technology, Islamabad, Pakistan

ABSTRACT

This study empirically examined the impact of breach of psychological contract on employees' quality of life via the mediating mechanism of psychosomatic strain, while facilitating effect of power distance was also examined. Data were collected from a sample of 183 employees using a questionnaire. Results confirm that the breach of psychological contract declines employees' quality of life, while mediating role of psychosomatic strain in this particular relationship was also established. Contrary to expectations, power distance does not act as a moderating variable. Implications, limitation and future research direction are discussed.

INTRODUCTION

Psychological contracts form the core relationship between employee and employer in which employee expects equity and justice at workplace (Morrison & Robinson, 1997; Hui, Lee & Rousseau, 2004). However, these expectations are not always met causing breach of psychological contract (Bal et.al; 2008). Various negative outcomes are associated with feeling of breach of psychological contract, which include lack of trust, dissatisfaction from one's job, lack of affective commitment and decline in both in-role and extra role performance (Zhao, Wayne, Glibkowski and Bravo, 2007). Apart from psychological outcomes the breach of psychological contract can negatively affect employees' health causing psychosomatic strain (Gakovic & Tetrick, 2003), which is generally caused by psychosocial stressors and symptoms including sleeplessness, headaches and fatigue.

The presence of psychosomatic strain at workplace (Ganster & Rosen, 2013; Höge, 2009; Bauer, 2006) is associated with breach of psychological contract and such strain is associated with diabetes, depression and cardiovascular diseases (Ganster & Rosen, 2013). It is imperative to find out how these factors affect employee well-being and quality of life, but limited literature addresses the issue. We argue that these factors negatively affect employee's quality of life as occupational stress has been reported to have negative impact upon employees' quality of life (Greenhaus, Collins & Shaw, 2003; Yang et al., 2009) and subjective well-being (Sonnentag & Zijlstra, 2006; De Jonge, Bosma, Peter, & Siegrist, 2000; Diener, 2000).

We further argue that breach of psychological contract varies across cultures (Kirkman, Lowe, & Gibson, 2006; Chao, Cheung& Wu, 2011), as the studies in US and western cultures might not have same results in Asian countries (Restubog, Bordia & Tang, 2007). Based on these studies we suggest that power distance can intensify the effect of perceived psychological breach in a way that in high power distance cultures like Pakistan; employees will experience a higher level of psychosomatic strain, which has also been concurred by Liu, Yang, & Nauta (2013).

The current study is believed to contribute in psychological contract literature in two ways. It will relate breach of psychological contract with quality of life through the mechanism of psychosomatic strain. In addition, it will consider impact of power distance as potential moderator highlighting intensity of outcomes associated with breach of psychological contracts, which varies across cultures.

LITERATURE REVIEW

Breach of Psychological Contract (BPC) and Quality of Life (QOL)

The construct of psychological contract has been the focus of researchers for many years and there exists substantial amount of research on the nature of psychological contract, its evolution and the possible outcomes. Psychological contacts are at the heart of understanding employment relationships in various

occupations (Rousseau, 1998; Coyle-Shapiro & Kessler, 2000; Guest, 2004; Persson & Wasieleski, 2015). A psychological contract represents an unwritten and implicit agreement between an employee and the organization about mutual obligations and is mainly based upon the perception of employer and employee about what they owe to each other (Robinson& Rousseau, 1994; Rousseau, 1989). Therefore, the felt obligations on part of the employee and the employing organization represent a psychological contract. Typically, these obligations are not expressly written or placed in the formal employment contract (Guest, 2004; Rousseau, 2001).

Breach of psychological contract (BPC) is a condition when employee feels that the organization has failed to fulfill its obligations toward him or her and has not reciprocated positively to the contribution that has been made by that employee. Moreover, the employee feels that the organization didn't fulfill its promises despite being able to do so, which carries the element of willful violation on part of the employer (Robinson & Morrison, 2000; Morrison & Robinson, 1997). It gives rise to the feelings of disappointment, depression, frustration, and distress, in combination with feelings of anger, resentment, bitterness and outrage, resulting from the perceptions of betrayal (Priesemuth & Taylor, 2016; Rigotti, 2009; Conway & Briner, 2002).

Such perceived breach may lead to various work-related outcomes. Kickul and Lester (2001) reported negative affect towards the organization, reduced job satisfaction and OCB as the outcomes of BPC. Decline in performance and absenteeism are also reported to be linked with BPC (Restubog, Bordia & Tang, 2006; Johnson & O'Leary-Kelly, 2003; Matthijs Bal, Chiaburu & Jansen, 2010; Suazo, Turnley, & Mai, 2005). In their meta-analysis, Zhao et al. (2007) reported many negative outcomes of psychological contract breach including mistrust, reduced job satisfaction, decline in commitment, organizational citizenship behavior, performance and increased turnover intentions. A meta-analysis by Bal et al. (2008) also supported the negative link between BPC and work outcomes (trust, job satisfaction and commitment). Research also suggests a link between BPC and deviance at workplace (Restubog et al., 2015; Bordia, Restubog & Tang 2008; Chiu & Peng, 2008). Moreover, the perception of psychological contract breach can also result in diverting employees' commitment with their organizations to other entities and bodies like their respective unions (Bashir & Nasir, 2013). It is evident from the existing literature of psychological contract breach that its work-related outcomes are studied substantively; still the effect of

such breach on subjective well-being of employees represented in the form of quality of life remains a neglected area.

Broadly, quality of life represents a subjective evaluation and psychological state of individuals of their overall life circumstances (Abdel-Khalek, 2010; Costanza, 2007; Diener, 2000; Cella, 1994). There are no specific studies linking psychological contract breach and quality of life, yet the literature clearly has evidence that work-related variables in general have an impact upon quality of life of employees. Management practices and employment conditions that are adopted in the contemporary workplace may have the potential to either enhance or diminish quality of life (Boreham, Povey & Tomaszewski, 2016). Additionally, a few studies indicate that BPC and similar variables have an impact upon employees' well-being. Therefore, we believe that BPC has its implications on employees' life consequences as well, since the work of Cassar & Buttigieg (2015) reported negative consequences of BPC on emotional well-being. There is also some support of the negative relationship between BPC and well-being (De Jong et al., 2015; Cuyper, 2008). Furthermore, job insecurity (a feeling related to perceived breach) is a precursor of deteriorating well-being of employees (Silla et.al 2009; De Cuyper and De Witte, 2007). Hence, we hypothesize that:

> *Hypothesis 1. Breach of psychological contract is negatively associated with employees' quality of life*

Psychosomatic Strain as a Mediator between the Breach of Psychological Contract and Quality of Life

Psychosomatic strain is generally caused by psychosocial stressors resulting in sleeplessness, headaches and fatigue, such stressors may be present in the workplace (Ganster & Rosen, 2013; Höge, 2009; Bauer, 2006). For example, Nieuwenhuijsen, Bruinvels and Frings-Dresen (2010) noted the impact of high job demands, low job control, low co-worker support, low supervisor support, low procedural justice, low relational justice and a high effort–reward imbalance upon stress related disorders. Gakovic, A., & Tetrick (2003) noted that employment exchange relationships play a role in the strain experienced by the employees and the breach of psychological contract is positively associated with such strain.

This can be explained from the perspective of affective events theory by Weiss and Cropanzano (1996), which predicts that negative events at

workplace cause negative emotions like frustration, and anger, resulting in subsequent negative outcomes, also concurred by Morrison and Robinson (1997). Cropanzano and Mitchell (2005) further explained that the breach of psychological contract is a negative event according to social exchange theory, which shows an organization's failure to reciprocate employees' contribution. Theoretically integrating the breach of psychological contract and perceived organizational support, Aselage and Eisenberger (2003) suggested that BPC is linked with the perception of the failure of an organization in extending support to its employees, which results in negative reciprocation by the employees. Suazo and Stone-Romero (2011) also put forward such a view of BPC. Moreover, research suggests that psychological contract breach depicts a negative workplace event (Zhao et.al; 2007; Weiss & Beal 2005; Kiefer 2005). Therefore, we argue that BPC as a negative event gives rise to negative emotions, which causes stress and further leading to negative outcomes to the affected employees.

It can be also viewed from the angle of trust. Since trust is the basic condition of employment relationship between employee and organization (Rousseau, 2001), and is also incorporated in all psychological contracts (Atkinson, 2007), the breach of psychological contract represents a situation of betrayal, promises being broken and expectations being unmet (Morrison & Robinson 1997), which in any social relationship causes negative outcomes as trust breaks (Lewis & Weigert 1985). Therefore, we believe that BPC results in reduced trust, which consequently results in the stress that the betrayed party experiences. As Troman (2000) noted that a low trusting social relationship results in stress among teachers. Costa, Roe, and Taillieu (2001) also indicated that a trusting environment reduces team members' stress and improve work outcomes. More specifically, there is a positive linkage between psychological contract fulfillment and mental health (Parzefall & Hakanen 2010).

Strain arises from different sources and its life consequences including subjective well-being, life satisfaction and quality of life are associated with each other and these negative effects are well documented. Stress caused by negative life events including those associated with work results in declining life satisfaction (Marum, 2014). There exists a significant negative relationship between stress and life satisfaction (Hayes & Weathington, 2007; Barnes & Lightsey, 2005; Hamarat et al., 2001). Specifically, job stress is also responsible for lowering quality of life, as Min (2014) noted the negative impact of job stress upon quality of life. Similarly, Lerner et

al. (1994) observed the negative effects of job strain upon health-related quality of life of employees. It appears that the stressors causing psychosomatic strain which are present at workplace can cause employees' quality of life to decline. Therefore, we argue that psychological contract breach can be a workplace stressor causing psychosomatic strain, which ultimately leads to reduced quality of life of employees; therefore, hypothesis two is developed as:

Hypothesis 2. Psychosomatic strain mediates the relationship between psychological contract breach and quality of life

Power Distance as a Moderator between the Breach of Psychological Contract and Psychosomatic Strain

Literature suggests that psychological contract is a culture-sensitive concept, which implies that the formation of psychological contracts, perception of their violation and responses to such violation are affected by the cultural profile of individuals (Kirkman, Lowe, & Gibson, 2006; Thomas, Au & Ravlin, 2003; Zhao & Chen 2008; Kickul, Lester & Belgio, 2004; Westwood, Sparrow & Leung, 2001; Bochner & Hesketh, 1994). An important dimension of culture affecting the responses to BPC is that of power distance, which is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power has been spread unequally (Hofstede, 1983). As Chao, Cheung and Wu (2011) noted the moderating effect of power distance between BPC and counterproductive work behaviors, such that it strengthens the impact. Similarly, Zagenczyk et al. (2015) found that power distance positively moderates the relationship between BPC and the responses towards it.

Additionally, the characteristics associated with high power distance at organizational level are centralized and autocratic decision making, highly personalized, strong leadership, limited delegation, bureaucratic controls and little empowerment (Lok & Crawford, 2004; Joiner, 2001; Fikret, 2000; Robert, 2000). Zagenczyk et al. (2015) noted that if BPC occurs under high power distance cultures, then employees don't raise their voice against it and generally remain passive in their responses. Such silence and inability to communicate their concern to the seniors can become a source of stress (Milliken, Morrison & Hewlin, 2003; Beer & Eisenstat, 2000). Hence, we argue that employees are likely to remain

passive against the breach of psychological contract in a high power distance culture and there arises a possibility of anxiety and unpleasant feelings amongst them, which is likely to enhance the psychosomatic strain associated with BPC.

Pakistani public sector organizations are high on the dimension of power distance, where the dependence of subordinates upon superiors is high and disagreement with them is uncommon and unwelcomed. There exists a centralized system with many hierarchical levels with minimal top to bottom communication and bottom-up communication is unheard of (Islam, 2004; Khilji, 2004; Khilji, 2002). Hence, we believe that under high power distance orientation, Pakistani public sector employees will experience a high level of stress if the breach of psychological contract occurs. And the subsequent hypothesis is:

Hypothesis 3. Power distance moderates the relationship between psychological contract breach and psychosomatic strain such that the strain will be intensified in the presence of high power distance and vice-versa

FIGURE 1
Theoretical Framework
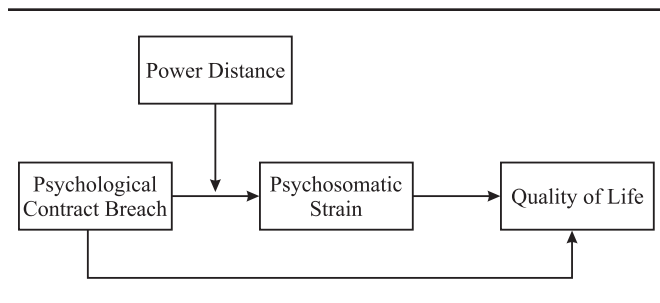
RESEARCH METHODOLOGY

Sample and Population

Purposive sampling technique was employed to contact respondents based on their willingness to participate in the survey. Questionnaires were distributed amongst survey respondents who were employed in different organizations, which include public sector organizations, banks and educational institutions. Only those respondents who gave their consent to participate in the study were finalized as participants. Out of 250 distributed questionnaires, 189 were initially received, representing a response rate of 75.6%.

Out of 189 respondents, 123 (65.07%) were males and 66 (34.92%) were females. 86 respondents were

from the age bracket of 21-30 years, 98 from 31-40 years and 5 were from 41 years and above age bracket i.e. 45.50%, 51.85% and 2.64% respectively. The mix of respondents in terms of total work experience was 44(1-5 years), 80 (6-10 years), 60 (11-15 years) and 5 (16 years and above) depicting 23.28%, 42.32%, 31.74% and 2.64% respectively, in each category. 6 respondents had an intermediate degree (3.17 percent), 65 respondents had a bachelor's degree (34.39 percent) and the remaining 118 had a masters or higher degree (62.43 percent). 148 respondents represented office employees while the remaining 41 represented ground staff (including engineers and technicians) showing 78.30 and 21.69 percent of each category.

Measures

All variables of the study were measured through standard instruments developed and validated previously, as discussed in the following sub-sections. Responses on all variables were obtained on likert scale. Negative items were reverse coded.

Breach of Psychological Contract

The scale of psychological contract breach by Robinson and Morrison (2000) was adopted to measure the perception of employees' perception regarding the organization's fulfillment of its obligations toward them. The scale had 5 items. Sample items include; "Almost all the promises made by my employer during recruitment have been kept so far" and "So far my employer has done an excellent job of fulfilling his/her promises to me". Responses were obtained on a five-point likert scale ranging from "Strongly agree" to "strongly disagree".

Psychosomatic Strain

Based on Karagonlar, Eisenberger and Aselage (2016) psychosomatic strain was measured on a 7-point scale (1 = never, 7=very often), where employees were asked how often they experienced the following somatic complaints adapted from prior literature (Caplan, Cobb, Harrison, & Pinneau, 1980; Frese, 1985; Greller & Parsons, 1988): "overly tired/lack of energy," "headaches," "sleep problems," "nervous/tense," "back pain," and "indigestion/acid stomach." Such psychosomatic complaints represent a formative measure where complaints are not interchangeable (i.e., the existence of one complaint is not necessarily associated with the existence of another) (Spector & Jex, 1998). Spector and Jex (1998) noted that because

these complaints do not represent an underlying latent construct and rather define the construct themselves, measurement error is irrelevant to such psychosomatic complaint scales, and thus, this scale is not necessarily expected to have high inter-item reliability. Therefore, the low Cronbach's α (0.6) of psychosomatic strain measure does not pose a significant threat to validity.

Quality of life

The Quality of Life-Brief (WHOQOL-Bref) scale by World Health Organization (WHO) was adopted to measure the respondents' overall quality of life. It is the shorter version of the basic scale of 100 items and contains 26 items in total. It is also the most widely used scale to measure quality of life. The scale has been recently used by Min (2014) and Abdel-Khalek (2010). The scale covers four dimensions of quality of life including physical and psychological health, social relationships and environment. The scale measures QOL using various likert scales for each dimension. Sample items include; "Do you get the kind of support from others that you need?" (Social dimension), "How much do you need any medical treatment to function in your daily life" (physical dimension), "How often do you have negative feelings such as blue mood, despair, anxiety, depression?" (Psychological dimension), "How satisfied are you with the conditions of your living place?" (Environmental dimension).

Power Distance

Power distance was measured by adopting the scale of Dorfman and Howell (1988). The scale has been recently used by Zagenczyka (2014) in the context of psychological contract breach. The scale had six items obtaining responses on a five-point likert scale ranging from "strongly agree" to "strongly disagree". Sample items are "Managers should make most decisions without consulting subordinates" and "Managers should seldom ask for the opinions of employees".

RESULTS

The mean, standard deviation, inter-correlations and Cronbach's alpha value of the study variables are presented in table 1. Breach of psychological contract was significantly and positively correlated with psychosomatic strain (r=0.17, p<0.05) and had a significant negative correlation with quality of life (r = -0.25, p < 0.01), whereas, it was not significantly correlated with power distance (r=0.07, p=0.28).Psychosomatic strain had positive significant correlation with power distance (r=0.48, p<0.01), and had a negative significant correlation with quality of life (r= -0.49, p < 0.01). We found power distance to be negatively correlated with quality of life (r = -0.49, p < 0.01). It is pertinent to note that quality of life was found to have negative significant correlation with all the study variables, i.e. breach of psychological contract, psychosomatic strain and power distance (-0.25, -0.43 and -0.49), respectively.

Table 2 shows the results of mediation analysis, including the total, direct and indirect effects. Mediation analysis was run using the bootstrapping method by Preacher and Hayes, (2008). With 95% confidence intervals, 5000 bootstrap re-samples were used for this analysis.

The total effect explains the relationship between the breach of psychological contract and quality of life, which turned out to be -0.13 with no zero value lying between ULCI (-0.06) and LLCI (-0.21). Direct effect represents the impact of breach of psychological contract and psychosomatic strain combined on quality of life. The direct effect turned out to be –0.09 with no zero value lying between ULCI (-0.02) and LLCI (-0.16). The effect size in the presence of the mediating variable i.e. psychosomatic strain turned out to be -0.03 with no zero value lying between ULCI (-0.00) and LLCI (-0.08). Consistent with Preacher and Hayes (2004), the presence of a non-zero value between the upper and lower boot limits demonstrates a significant relationship. Based on these results, it is concluded that breach of psychological contract is negatively associated with employees' quality of life; moreover, psychosomatic strain mediates the said relationship, leading to the acceptance of hypotheses one and two.

TABLE 1
Correlation and reliabilities (in parentheses) matrix of study variables

Variables	Mean	S.D	1	2	3	4
Breach of psychological contract	3.50	1.06	(0.81)			
Psychosomatic strain	3.43	0.69	0.17*	(0.60)		
Power distance	3.70	0.78	0.07	0.48**	(0.90)	
Quality of life	3.81	0.57	-0.25**	-0.43**	-0.49**	(0.90)

*p < 0.05
**p < 0.01

TABLE 2
Mediation analysis

| Effect	Effect Size	S.E	LL95%CI	UL95%CI
Total Effect	-0.13	0.03	-0.21	-0.06
Direct Effect	-0.09	0.03	-0.16	-0.02
Indirect Effect	-0.03	0.01	-0.08	-0.00

S.E = standard error, LL = lower limit, UL = upper limit, CI= confidence interval

A moderation test was also run using the bootstrapping method by Preacher and Hayes (2008). With 95% confidence intervals, 5000 bootstrap re-samples were used for this analysis. Table 3 reports the results of moderation analysis taking power distance as a moderator between psychological contract breach and psychosomatic strain. The resulting value of R2 Change (0.004) is negligible with insignificant p value of 0.28. Therefore, hypothesis three has been rejected as power distance does not positively moderate the relationship between psychological contract breach and psychosomatic strain. Figure 2 shows the moderation plot, taking the breach of psychological contract as independent, power distance as moderator and psychosomatic strain as the dependent variables.

TABLE 3
Moderation analysis

R2 Change	F	Sig
0.004	1.14	0.28

FIGURE 2
Moderation plot of power distance between psychological contract breach and psychosomatic strain
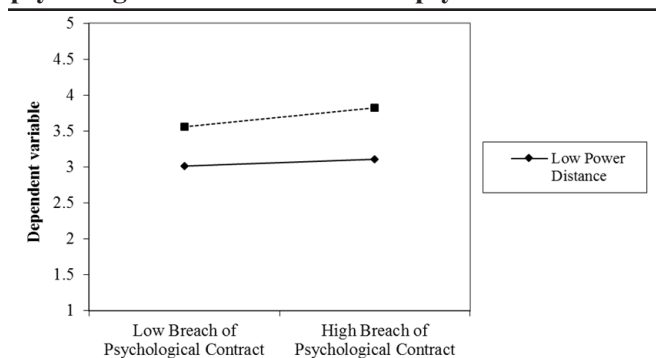
DISCUSSION

The study was aimed at finding out the relationship between the breach of psychological contract and quality of life, through mechanism of psychosomatic strain and moderating effect of power distance. The results are pertinent in explaining the negative effects of psychological contract breach upon employees' well-being which was conceptualized as quality of life in the present study. The mediating mechanism through which BPC leads to decline in quality of life is also identified in the form of psychosomatic strain. Moreover, the moderating effect of power distance between BPC and psychosomatic strain was also tested. As hypothesized, the breach of psychological contract turned out to have a significant negative association with the quality of life of employees experiencing such breach. This explains that the negative effects of BPC go beyond the generally studied workplace outcomes and the feeling of broken promises and non-fulfillment of the obligations by the employer can lead to effect employees' life and well-being as well. This finding is significant, since it establishes a clear link between BPC and quality of life taking all four dimension of QOL which are physical, psychological, social and environment-related. Therefore, this study is consistent with the findings of De Jong et al. (2015) and Cuyper (2008), who gave a broad view that the breach of psychological contract and employee well-being are negatively associated. However, the present findings go beyond a general perspective of well-being and specifically relate the breach of psychological contract with quality of life as an outcome variable.

According to the results, the mediating effect of psychosomatic strain between the breach of psychological contract and quality of life has also been substantiated. It was argued earlier that psychological contract breach can be a workplace stressor causing psychosomatic strain and such strain then becomes a cause of declining quality of life of employees. Therefore, the breach of psychological contract has been confirmed as a workplace stressor, which leads to declining quality of life via psychosomatic strain. It can be inferred that when employees find themselves in a situation where they feel that their employers are not fulfilling their obligations as part of the psychological contract, they experience psychosomatic strain with the symptoms of overly tired/lack of energy," "headaches," "sleep problems," "nervous/tense," "back pain," and "indigestion/acid stomach, as identified by Karagonlar, Eisenberger and Aselage (2016). The path from psychosomatic strain to quality of life also turned out to be negative, implying that such strain not only negatively affects employees' quality of life but also creates a mediating link between the breach of psychological contract and quality of life.

The mediating mechanism can also be viewed from the perspective of affective events theory by Weiss

& Cropanzano (1996) which provides the foundation for the study. Affective events theory (AET), predicts and explains that how specific organizational events determine employee attitude and their well-being (Weiss & Cropanzano, 1996). As discussed earlier that Cropanzano and Mitchell (2005) explained the breach of psychological contract as a negative event according to social exchange theory, which shows an organization's failure to reciprocate employees' contribution. Under such situations, employees start developing the feeling of being betrayed, indicating breach of psychological contract on part of the organization. It creates negative feelings amongst them, which adversely affects their quality of life. In line with affective events theory, it predicts that negative events at workplace cause negative emotions like frustration and anger, ultimately resulting in negative outcomes leading to reduced quality of life; similarly posited by Morrison and Robinson (1997).

The study results show that the moderating role of power distance between the breach of psychological contract and psychosomatic strain has not been substantiated. Pakistani public sector organizations are high on the demission of power distance with centralized and autocratic decision making, highly personalized, strong leadership, limited delegation, bureaucratic controls and little empowerment (Lok & Crawford, 2004; Joiner, 2001; Fikret, 2000; Robert, 2000). It was argued that under high power distance situations, where employees have very little or no opportunity to communicate their concerns to senior management, such inability to voice their problems can enhance the resulting psychosomatic strain in the scenario where the breach of psychological contract has occurred. This may be attributed to the reason that employees in high power distance cultures generally accept the exercise of power by the people up in the hierarchy as suggested by Hofstede (1983), and they as a part of their national culture and collective programming perceive the exercise of such power by the authorities as legitimate and don't find it rather troubling to keep silent over the issues which affect them.

Implications

The current study contributes in the exiting literature of psychological contract breach with respect to quality of life through the mediating and moderating mechanisms of psychosomatic strain and power distance. The empirical validation of the negative effects of psychological contract breach upon quality of life is a step towards the identification of the negative side of such breach upon overall quality of life of employees including their physical, psychological, social and environmental aspects. The results further suggest taking the breach of psychological contract as a situation which goes beyond

the working life of an individual.

Additionally, the study explains the path through which the breach of psychological contract leads to decline in employees, quality of life. Psychosomatic strain as a mediator between the breach of psychological contract and quality of life turned out to be a potential variable that affects an individual's quality of life negatively. The absence of power distance as a moderator between the breach of psychological contract and psychosomatic strain suggests that power distance does not necessarily increase the negative effects of psychological contract breach, rather it is so deep-rooted in the national and organizational culture that individuals take it as a routine matter to obey the decisions of the authorities whether they are right or wrong.

The study also has noteworthy managerial implications. The breach of psychological contract has been found to adversely affect individual's quality of life, through psychosomatic strain. Therefore, mangers are advised to understand the expectation of their subordinates, so that they can take care of their legitimate concerns. If the managers fail to understand the implicit meaning of the contract that the employees have developed with the employing organization, this could result in psychosomatic strain and the decline in the quality of life. Deteriorating quality of life of employees will eventually have negative consequences for the employees and the organization in the form of illnesses, absenteeism, and lateness, lack of interest, reduced commitment and even actual turnover. Though, power distance has not been found to moderate the relationship between the breach of psychological contract and psychosomatic strain, yet the managers need to listen to the voice of employees, since all employees do not have same personality traits and might not react homogeneously in an environment of silence and suppression.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Although, the study objectives are successfully attained, still the findings need to be interpreted with caution. First, the sampling technique employed was of purposive sampling based on the willingness of participants; therefore, some participants who could be a suitable source of response may be missed because of their non-participation. Next, the problem of cultural specificity may be a point of concern, because data were collected from Islamabad and Rawalpindi region only. Finally, the findings can't claim to establish a causal relationship between the variables because the study was cross-sectional in nature.

The integration of moderating variables in the relationship of psychosomatic strain and quality of life is

suggested for better understanding of the dynamics of this relationship. It is suggested that some support variables may moderate the said relationship including supervisory, peer and spousal support. Other suggested moderating variables between the breach of psychological contract and psychosomatic strain are employees' optimism and dispositional factors. Future research in the same context is recommended with a longitudinal design to establish causality of relationship between the variables. A similar study needs to be conducted in private sector with a diverse countrywide sample to increase its generalization and applicability.

REFERENCES

Abdel-Khalek, A. M. (2010). Quality of life, subjective well-being, and religiosity in Muslim college students. *Quality of Life Research*, 19(8), 1133-1143.

Aselage, J., & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: A theoretical integration. *Journal of Organizational Behavior*, 24(5), 491-509.

Atkinson, C. (2007). Trust and the psychological contract. *Employee Relations*, 29(3), 227-246.

Bal, P. M., De Lange, A. H., Jansen, P. G., & Van Der Velde, M. E. (2008). Psychological contract breach and job attitudes: A meta-analysis of age as a moderator. *Journal of Vocational Behavior*, 72(1), 143-158.

Barnes, P. W., & Lightsey, O. R. (2005). Perceived racist discrimination, coping, stress, and life satisfaction. *Journal of Multicultural Counseling and Development*, 33(1), 48-61.

Bashir, S., & Nasir, M. (2013). Breach of psychological contract, organizational cynicism and union commitment: A study of hospitality industry in Pakistan. *International Journal of Hospitality Management*, 34, 61-65.

Bauer, J., Stamm, A., Virnich, K., Wissing, K., Müller, U., Wirsching, M., & Schaarschmidt, U. (2006). Correlation between burnout syndrome and psychological and psychosomatic symptoms among teachers. International archives of occupational and environmental health, 79(3), 199-204.

Beer, M., & Eisenstat, R. A. (2000). The silent killers of strategy implementation and learning. *MIT Sloan Management Review*, 41(4), 29-40.

Bochner, S., & Hesketh, B. (1994). Power distance, individualism/collectivism, and job-related attitudes in a culturally diverse work group. *Journal of Cross-Cultural Psychology*, 25(2), 233-257.

Bordia, P., Restubog, S. L. D., & Tang, R. L. (2008). When employees strike back: investigating mediating mechanisms between psychological contract breach and workplace deviance. *Journal of Applied Psychology*, 93(5), 1104-1117.

Boreham, P., Povey, J., & Tomaszewski, W. (2016). Work and social well-being: the impact of employment conditions on quality of life. *The International Journal of Human Resource Management*, 27(6), 593-611.

Caplan, R. D., Cobb, S., French, J. R. P., Jr., Harrison, R. V., & Pinneau, S. R. (1980). Job demands and worker health: Maineffects and occupational differences. Ann Arbor: Institute of social research.

Cassar, V., & Buttigieg, S. C. (2015). Psychological contract breach, organizational justice and emotional well-being. *Personnel Review*, 44(2), 217-235.

Cella, D. F. (1994). Quality of life: concepts and definition. *Journal of Pain and Symptom Management*, 9(3), 186-192.

Chao, J. M., Cheung, F. Y., & Wu, A. M. (2011). Psychological contract breach and counterproductive workplace behaviors: testing moderating effect of attribution style and power distance. *The International Journal of Human Resource Management*, 22(04), 763-777.

Chiu, S. F., & Peng, J. C. (2008). The relationship between psychological contract breach and employee deviance: The moderating role of hostile attributional style. *Journal of Vocational Behavior*, 73(3), 426-433.

Conway, N., & Briner, R. B. (2002). A daily diary study of affective responses to psychological contract breach and exceeded promises. *Journal of Organizational Behavior*, 23(3), 287-302.

Costa, A. C., Roe, R. A., & Taillieu, T. (2001). Trust within teams: The relation with performance effectiveness. *European Journal of Work and Organizational Psychology*, 10(3), 225-244.

Costanza, R., Fisher, B., Ali, S., Beer, C., Bond, L., Boumans, R., ... & Gayer, D. E. (2007). Quality of life: An approach integrating opportunities, human needs, and subjective well-being. *Ecological Economics*, 61(2), 267-276.

Coyle-Shapiro, J., & Kessler, I. (2000). Consequences of the psychological contract for the employment relationship: A large scale survey*. *Journal of Management Studies*, 37(7), 903-930.

Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.

Cuyper, N. D., Bernhard-Oettel, C., Berntson, E., Witte, H. D., & Alarco, B. (2008). Employability and Employees' Well-Being: Mediation by Job Insecurity. *Applied Psychology*, 57(3), 488-509.

De Cuyper, N., & De Witte, H. (2007). Job insecurity in temporary versus permanent workers: Associations with attitudes, well-being, and behaviour. *Work & Stress*, 21(1), 65-84.

De Jong, J. D., Clinton, M., Rigotti, T., & Bernhard-Oettel, C. (2015). Nonlinear associations between breached obligations and employee well-being. *Journal of Managerial Psychology*, 30(4), 374-389.

De Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort-reward imbalance and employee well-being: a large-scale cross-sectional study. *Social Science & Medicine*, 50(9), 1317-1327.

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34-43.

Dorfman, P. W., & Howell, J. P. (1988). Dimensions of national culture and effective leadership patterns: Hofstede revisited. *Advances in International Comparative Management*, 3(1), 127-150.

Fikret Pasa, S. (2000). Leadership influence in a high power distance and collectivist culture. *Leadership & Organization Development Journal*, 21(8), 414-426.

Frese, M. (1985). Stress at work and psychosomatic complaints: a causal interpretation. *Journal of Applied Psychology*, 70(2), 314-328.

Gakovic, A., & Tetrick, L. E. (2003). Psychological contract breach as a source of strain for employees. *Journal of Business and Psychology*, 18(2), 235-246.

Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health A multidisciplinary review. Journal of Management, 0149206313475815.

Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work–family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510-531.

Greller, M., & Parsons, C. K. (1988). Psychosomatic complaints scale of stress: Measure development and psychometric properties. *Educational and Psychological Measurement*, 48(4), 1051-1065.

Guest, D. E. (2004). The psychology of the employment relationship: An analysis based on the psychological contract. *Applied Psychology*, 53(4), 541-555.

Hamarat, E., Dennis, T, Karen M. Zabrucky, Don, S., Kenneth B. Matheny, B., Ferda A. (2001). Perceived stress and coping resource availability as predictors of life satisfaction in young, middle-aged, and older adults. *Experimental aging Research*, 27(2), 181-196.

Hayes, C. T., & Weathington, B. L. (2007). Optimism, stress, life satisfaction, and job burnout in restaurant managers. *The Journal of Psychology*, 141(6), 565-579.

Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14(2), 75-89.

Höge, T. (2009). When work strain transcends psychological boundaries: An inquiry into the relationship between time pressure, irritation, work–family conflict and psychosomatic complaints. *Stress and Health*, 25(1), 41-51.

Hui, C., Lee, C., & Rousseau, D. M. (2004). Psychological contract and organizational citizenship behavior in China: investigating generalizability and instrumentality. *Journal of Applied Psychology*, 89(2), 311-321.

Islam, N. (2004). Sifarish, sycophants, power and collectivism: Administrative culture in Pakistan. *International Review of Administrative Sciences*, 70(2), 311-330.

Johnson, J. L., & O'Leary-Kelly, A. M. (2003). The effects of psychological contract breach and organizational cynicism: Not all social exchange violations are created equal. *Journal of Organizational Behavior*, 24(5), 627-647.

Joiner, T. A. (2001). The influence of national culture and organizational culture alignment on job stress and performance: evidence from Greece. *Journal of Managerial Psychology*, 16(3), 229-242.

Karagonlar, G., Eisenberger, R., & Aselage, J. (2016). Reciprocation wary employees discount psychological contract fulfillment. *Journal of Organizational Behavior*, 37(1), 23-40.

Khilji, E. (2002). Modes of convergence and divergence: An integrative view of multinational practices in Pakistan. *International Journal of Human Resource Management*, 13(2), 232-253.

Khilji, S. E. (2004). Whither tradition? Evidence of generational differences in HR satisfaction from Pakistan. *International Journal of Cross Cultural Management*, 4(2), 141-156.

Kickul, J., & Lester, S. W. (2001). Broken promises: Equity sensitivity as a moderator between psychological contract breach and employee attitudes and behavior. *Journal of Business and Psychology*, 16(2), 191-217.

Kickul, J., Lester, S. W., & Belgio, E. (2004). Attitudinal and behavioral outcomes of psychological contract breach a cross cultural comparison of the United States and Hong Kong Chinese. *International Journal of Cross Cultural Management*, 4(2), 229-252.

Kiefer, T. (2005). Feeling bad: Antecedents and consequences of negative emotions in ongoing change. *Journal of Organizational Behavior*, 26(8), 875-897.

Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies*, 37(3), 285-320.

Lerner, D. J., Levine, S., Malspeis, S., & D'Agostino, R. B. (1994). Job strain and health-related quality of life in a national sample. *American Journal of Public Health*, 84(10), 1580-1585.

Lewis, J. D., & Weigert, A. (1985). Trust as a social reality. *Social Forces*, 63(4), 967-985.

Liu, C., Yang, L. Q., & Nauta, M. M. (2013). Examining the mediating effect of supervisor conflict on procedural injustice–job strain relations: The function of power distance. *Journal of Occupational Health Psychology*, 18(1), 64-74.

Lok, P., & Crawford, J. (2004). The effect of organisational culture and leadership style on job satisfaction and organisational commitment: A cross-national comparison. *Journal of Management Development*, 23(4), 321-338.

Marum, G., Clench-Aas, J., Nes, R. B., & Raanaas, R. K. (2014). The relationship between negative life events, psychological distress and life satisfaction: a population-based study. *Quality of Life Research*, 23(2), 601-611.

Matthijs Bal, P., Chiaburu, D. S., & Jansen, P. G. (2010). Psychological contract breach and work performance: Is social exchange a buffer or an intensifier?. *Journal of Managerial Psychology*, 25(3), 252-273.

Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies*, 40(6), 1453-1476.

Min, J. (2014). The relationships between emotional intelligence, job stress, and quality of life among tour guides. *Asia Pacific Journal of Tourism Research*, 19(10), 1170-1190.

Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. Academy of management Review, 22(1), 226-256.

Nieuwenhuijsen, K., Bruinvels, D., & Frings-Dresen, M. (2010). Psychosocial work environment and stress-related disorders, a systematic review. *Occupational Medicine*, 60(4), 277-286.

Parzefall, M. R., & Hakanen, J. (2010). Psychological contract and its motivational and health-enhancing properties. *Journal of Managerial Psychology*, 25(1), 4-21.

Persson, S., & Wasieleski, D. (2015). The seasons of the psychological contract: Overcoming the silent transformations of the employer–employee relationship. *Human Resource Management Review*, 25(4), 368-383.

Priesemuth, M., & Taylor, R. M. (2016). The more I want, the less I have left to give: The moderating role of psychological entitlement on the relationship between psychological contract violation, depressive mood states, and citizenship behavior. *Journal of Organizational Behavior*, 37(7), 967-982.

Restubog, S. L. D., Bordia, P., & Tang, R. L. (2006). Effects of psychological contract breach on performance of IT employees: The mediating role of affective commitment. *Journal of Occupational and Organizational Psychology*, 79(2), 299-306.

Restubog, S. L. D., Bordia, P., & Tang, R. L. (2007). Behavioural Outcomes of Psychological Contract Breach in a Non-Western Culture: The Moderating Role of Equity Sensitivity. *British Journal of Management*, 18(4), 376-386.

Restubog, S. L. D., Zagenczyk, T. J., Bordia, P., Bordia, S., & Chapman, G. J. (2015). If you wrong us, shall we not revenge? Moderating roles of self-control and perceived aggressive work culture in predicting responses to psychological contract breach. *Journal of Management*, 41(4), 1132-1154.

Rigotti, T. (2009). Enough is enough? Threshold models for the relationship between psychological contract breach and job-related attitudes. *European Journal of Work and Organizational Psychology*, 18(4), 442-463.

Robert, C., Probst, T. M., Martocchio, J. J., Drasgow, F., & Lawler, J. J. (2000). Empowerment and continuous improvement in the United States, Mexico, Poland, and India: predicting fit on the basis of the dimensions of power distance and individualism. *Journal of Applied Psychology*, 85(5), 643-658.

Robinson, S. L., & Morrison, E. W. (2000). The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior*, 21(5), 525-546.

Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal*, 37(1), 137-152.

Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), 121-139.

Rousseau, D. M. (1998). The problem of the psychological contract considered. *Journal of Organizational Behavior*, 19(1), 665-671.

Rousseau, D. M. (2001). Schema, promise and mutuality:

The building blocks of the psychological contract. *Journal of Occupational and Organizational Psychology*, 74(4), 511-541.

Silla, I., De Cuyper, N., Gracia, F. J., Peiró, J. M., & De Witte, H. (2009). Job insecurity and well-being: Moderation by employability. *Journal of Happiness Studies*, 10(6), 739-751.

Sonnentag, S., & Zijlstra, F. R. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *Journal of Applied Psychology*, 91(2), 330-350.

Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology*, 3(4), 356-367.

Suazo, M. M., & Stone-Romero, E. F. (2011). Implications of psychological contract breach: A perceived organizational support perspective. *Journal of Managerial Psychology*, 26(5), 366-382.

Suazo, M. M., Turnley, W. H., & Mai, R. R. (2005). The role of perceived violation in determining employees' reactions to psychological contract breach. *Journal of Leadership & Organizational Studies*, 12(1), 24-36.

The PIA controversy | Pakistan Today. (December, 2015). Retrieved March 24, 2016, from http://www.pakistantoday.com.pk/2015/12/08/comment/the-pia-controversy/

Thomas, D. C., Au, K., & Ravlin, E. C. (2003). Cultural variation and the psychological contract. *Journal of Organizational Behavior*, 24(5), 451-471.

Troman, G. (2000). Teacher stress in the low-trust society. *British Journal of Sociology of Education*, 21(3), 331-353.

Weiss, H. M., & Beal, D. J. (2005). Reflections on affective events theory. *Research on Emotion in Organizations*, 1(1), 1-21.

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. Research in organizational behavior: An annual series of analytical essays and critical reviews, 8, 1-74.

Westwood, R., Sparrow, P., & Leung, A. (2001). Challenges to the psychological contract in Hong Kong. *International Journal of Human Resource Management*, 12(4), 621-651.

Yang, X., Ge, C., Hu, B., Chi, T., & Wang, L. (2009). Relationship between quality of life and occupational stress among teachers. *Public Health*, 123(11), 750-755.

Zagenczyk, T. J., Cruz, K. S., Cheung, J. H., Scott, K. L., Kiewitz, C., & Galloway, B. (2015). The moderating effect of power distance on employee responses to psychological contract breach. *European Journal of Work and Organizational Psychology*, 24(6), 853-865.

Zhao, H. A. O., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Personnel Psychology*, 60(3), 647-680.

Zhao, J., & Chen, L. (2008). Individualism, collectivism, selected personality traits, and psychological contract in employment: A comparative study. *Management Research News*, 31(4), 289-304.

IMPACT OF SPIRITUAL INTELLIGENCE ON EMPLOYEE TASK PERFORMANCE AND OCB; MEDIATING ROLE OF SELF EFFICACY, MODERATING ROLE OF COLLECTIVIST CULTURE OF PAKISTAN

SHAZIA FAIZ KHAWAJA

Capital University of Science and Technology, Islamabad, Pakistan

ABSTRACT

The current study aimed to explore the impact of spiritual intelligence in the task performance and OCB, through the mediating mechanism of self efficacy and the moderating impact of collectivist culture on the said relationship. Three separate linear regression models were developed to investigate the hypotheses. The data were collected using survey method from 313 doctors, employed in both public and private sector hospitals. The findings of the study suggested that spiritual intelligence leads to the increased task performance and enhanced OCB among doctors, whereas, self efficacy partially mediates the relationship. Moreover, collectivism positively moderates the relationship of spiritual intelligence with performance and OCB. The study concludes by discussing limitations and providing future research directions.

INTRODUCTION

Spiritual intelligence influence employee performance and benefits organization and the society (Gani, Hashim &Ismail 2010; Rani, Abidin & Hamid 2013; Soebyakto 2012 & Hashim 2011); it governs and guides individuals' actions in all possible ways (Roberston, 2007). The concept of spiritual intelligence has been studied before by researchers under the title of workplace spirituality (Malik, Naeem & Ali 2011), spirituality at work (Hashim, 2012), spiritual intelligence (Othman et el. 2012; Rani, Abidin & Hamid 2013) and spirituality (Robertson, 2007; Gani et al. 2010) with different facets. The growing interest of researchers in religiosity could be possible product of environmental changes as well as change in values on a global scale (Geh, 2009). According to Chin, Anantharaman and Tong (2011) spiritual intelligence is the set of abilities that individuals apply to enhance their daily functioning and well-being and it also increases their capacity to understand others at a higher level.

Self efficacy would be a possible outcome of spiritual intelligence. According to Adeyemo, Adeleye (2013), self-efficacy is one's belief in his or her ability to perform a specific behavior to achieve an outcome. Spiritual tendency along with self efficacy predicts positive outcomes (Duggleby, Cooper & Penz, 2009), while the collective efficacy is more effective for group performance (Stajkovic & Lee, 2009). Boglera & Somech (2004); Jawahar et al (2008) and Speier & Frese (1997) supported the idea that self efficacy predicts

organizational citizenship behavior as well, as it affects both task and contextual performance. These include citizenship behaviors exhibited in the form of helping a colleague with a job related problem, to general psychological support or employees' contribution towards organization image building more commonly known as altruism, courtesy, conscientiousness and civic virtue (Bukhari, 2008). Malik, Naeem and Ali (2011) proposed spiritual intelligence as a predictor of OCB while Animasahun (2008) suggested that spiritual intelligence along with self efficacy can play its due role in critical organizational situations and enhance contextual performance.

An individual's expectations towards organization rely on mutual cooperation and collaboration of management and employees. According to Amiri, Pourheidari and Hoseini (2012) culture strongly affects employees' performance and their relationship with organization. Supportive organizational culture and behaviors exhibited by management affirm worker performance. Farh, Hackett and Liang (2007) found culture an influential factor. Triandis (2001) analyzed that in collectivists' cultures employees perform better and value mutual benefits. Previously moderating role of culture was acknowledged and appreciated by researchers i.e. Farh, Hackett & Liang (2007).

The spillover theory (Staines, 1980) provides the theoretical support for this study as individuals do live in social structure which ensures interdependent lives specifically in collectivist Pakistani culture. Thus, the

expressions of attitudes, actions, beliefs, and activities in one domain spill over their effects to other domains. Researchers complimented the existence of spiritual intelligence with a variety of benefits and consider it impossible to keep it aside in personal and professional transaction for survival (Gani et al, 2010; Rani et al., 2013; Axtel & Parker 2003), as an individual's work and personal lives are naturally connected. Spiritual intelligence gives birth to doctors self efficacy along with their technical credibility, which ultimately compliments their task performance as well as their organizational citizenship behavior in collectivist culture (Axtel & Parker, 2003; Duggleby et al., 2009; Jawahar et al., 2008; Animasahun, 2008). Amiri et al. (2012) highlighted that culture can create constraints or opportunities for individuals attitudes, behavior and actions in organizational settings, which ultimately moderate the existing relationships for discussion. In collectivist culture of Pakistan, doctors' norms, values and behavior are influenced by this phenomenon, which shows its effects on their outcomes; such as task performance and organizational citizenship behavior.

According to Bandura (2001), the essence for a human being is the extent of control over the nature and quality of one's life. There are number of factors that ensure conscious functional attitude of individuals and they ensure their existence in a broad network of social structural influences. There are transactions among them; there are products as well as producers of social systems. Social cognitive theory (Luszczynska & Schwarzer, 2005) explains direct personal interactions among individuals, their reliance on others to secure desired outcomes, and collective activity exercised through socially coordinative and interdependent efforts. This compliments an individual's spiritual intelligence and perceived efficacy to exercise control over personal accomplishments, as well as collective growth. In addition to that the systematic layout of goal setting and its execution keeping in view the overall benefits for every stake holder in religious context ensures its strong credibility for the relationship of collectivism with this equation.

In recent years in Pakistan the focus of individual, as well as government, has been the health industry with its potential challenges. Limited literature is available where doctors' technical and spiritual competence has been accessed previously. Present study is going to access concept of spiritual intelligence as spiritual maturity in health industry of Pakistan, as the exhibition of spiritual maturity is quite obvious by doctors in contrast to their unchallengeable technical expertise. Spiritual intelligence creates self efficacy, which ultimately helps them in managing their task performance at respective jobs, but also help them in enhancing their organizational citizenship behavior i.e., their relation with colleagues, patients and others. The moderating role of collectivist culture in this relationship is also obvious.

Present study is the first of its kind as previous literature has studied spiritual intelligence with other variables and context but not with these variables and in Pakistani context. The study, therefore, aims at contributing into the existing literature theoretically as well as contextually.

LITERATURE REVIEW

Spiritual intelligence with task performance and OCB

Spiritual intelligence is the ninth dimension added by Gardner (1999) in his famous multiple intelligence theory (1983), concerned with the belief that there is an ultimate power that determines our destiny, which influences our attitudes and behaviors in order to achieve harmony and peace and God's blessings. It is also considered sixth dimension of personality. There must be an integration of spirituality at all levels and stages of human life to ensure survival and sustainability of humanity (Di, 2013) and companies (Srivastave & Misra, 2012). Researchers strongly emphasized application of spiritual intelligence for peaceful and convenient life (Shah & Elahi, 2012; Moodley, 2008; Burkhart, 2006). Gotsis and Kortezi (2008) considered it prerequisite for individual and organizational success (Hicks, 2002; 2003; 2005). Spirituality has close association with an individual's job and organizational activities (Kolodinsky, Giacalone & JurkieuHcz, 2007). Javadi, Mehrabi, Jamkhaneh & Samangooei (2012); Amram & Dryer, (2007) found it affective for working individuals in organizational settings.

Spiritual Intelligence Dimensions

i. Inner life

According to Geh (2009), it is one's conception of his own divine power and how one uses it to live a more content life and bring his true personality to work, including his spiritual side. Ashmos and Duchons (2005), added that it reflects individual identity (a person's view about himself) as well as social identity (his social standing) of a person. Javanmard (2012) concluded that it is a combination of an individual's self identity as well as his attitude as a member of group or organization.

ii. Meaningful work

Individual's involvement in their work gives more meaning to their lives (Geh 2009). Javanmard (2012)

and Ashmos & Duchons (2005) explained it as doing something more than the concept of job design, simply makes it more significant. Amram (2007) & Milliman et al. (2003) posited that in such a case, every activity is performed with a purpose.

iii. Sense of community

Individuals live their lives in connection to other human beings in the organization (Geh, 2009; Ashmos & Duchons, 2005). Spirituality was found as central to Muslims' functioning (Patel & Shikongo 2006). Emmon (2000) proposed spirituality as a form of intelligence, which consists of a set of capacities and abilities that enable people to solve their problems and attain their goals in their everyday lives. Ciarrochi, Liacco and Deneke (2008) added that religious practices and spiritual tendency give hope and optimism to individuals, which ultimately give meaning to their life. Othman et al. (2012) posited that it is a source of work life balance e. g., personal and professional life. Spiritual intelligence helps in solving specific problems but its application in every moment exhibits greater meaning to life (Amram, 2007; Amram & Dryer, 2008).

Milliman, Czaplewski and Ferguson (2003) identified a positive association between spirituality at work and their job outcomes for individuals and organizations, which improve professional performance as well as strengthen their relationship with the organization. Hosseini, Elias, Krauss & Aishah (2010) found significant influence of spirituality on individuals' vision, smooth functioning and adaptation, because it offers capabilities which predict its association with rational cognitive processes like goal achievement and problem resolution at both individual and organization level. Moodley (2008) posited that it improved behavior of individuals and made them beneficial members of society and organizations. Burkhart (2006) added that spirituality has been essential for effective growth and development of individuals and their task achievement. According to Javadi et al. (2012), these skills enhance their social relations and problem solving capabilities and improve their surrounding environments. Spiritual intelligence conduce the organizational environment, which ultimately ensures increased productivity. It also encourages employees to go beyond their responsibilities (Chin, Anantharaman & Tong, 2011).

Walsh, King, Jones, Tookman, & Blizard (2002) concluded that individuals' spiritual belief strength has been an important predictor of outcomes. Physicians have been using these spiritual beliefs for traumatic treatment along with medical care and found it affective; people suffered from grief and traumas resulted from unpleasant incidents recovered faster than those with

no spiritual intelligence. Probst & Strand (2010) appreciated the efficacy of spirituality and considered it a non-traditional but complementary method for treating disease, trauma, and other adverse life events by expert, but also found it effective for employees in job related challenges. Flinders & Thoresen (2008) strongly recommended the incorporation of religion and spirituality in academic course content to make individuals aware of its importance. It not only supports and reinforces their assimilation of virtues and character strengths, but also a practical component to make them learn these skills and apply them in daily life. They specifically encouraged the adaptation of these strategies by physicians in treatment of different patients.

Individuals not only contribute for their tasks but also exert effort for the wellbeing of every individual around them including employees, customers, and society (Geh, 2009; Howard & White, 2009). King and Williamson (2005) added that acceptance of religious expression at work settings by organizations and an individual is important because it has most significant influence on outcomes. Affeldt and MacDonald (2010) analyzed that effective exhibition of spiritual tendencies by health care professional brought significant association with their performance and organizational citizenship behavior.

On the basis of this literature review following hypotheses were developed:

Hypothesis 1. Spiritual intelligence significantly and positively affects doctor's task performance

Hypothesis 2. Spiritual intelligence significantly and positively affects doctor's organizational citizenship behavior

Self efficacy as a mediator

Self-efficacy is the belief in one's competence to tackle difficult or novel tasks and to cope with adversity in specific demanding situations. Self-efficacy makes a difference to how people feel, think, and act in a particular situation (Bandura, 1997). It is the ultimate self confidence of an individual in his capabilities in tasks performance beyond traditional boundaries (Axtel & Parker 2003). Self efficacy is the formation of one behavior in defined domain, which enhances level of self sufficiency for goal achievement at individual and organizational level. Luszczynska, Don & Schwarzer (2005) differentiated between general self efficacy and task related self efficacy. According to them general self-efficacy is an individuals' belief on his competence to tackle in stressful or challenging encounters; while specific self-efficacy is guarded to a particular task at hand. In context of individuals' personality, self efficacy

can be observed in various forms, e.g. intellectual self efficacy, emotional self efficacy and volitional self efficacy are important representations of self efficacy. Maxwell (1997) highlighted that individuals with potential self efficacy influence their surroundings, they are aware of their capabilities, access self actualization, define their life accordingly and make efforts for the desired outcomes. Furthermore, he explained (2010) that self efficacy has been developed in individuals from childhood through respect and encouragement given to them by their parents and family, which is enhanced by others in later stages of life and enable individuals to show height of performance in every field.

Self efficacy is obvious with respect to job self efficacy, creative self efficacy, group self efficacy and team self efficacy, each dimension brings improvement in attitudes and behavior of employees, which enhance task performance and organizational citizenship behavior in organization. Gupta (2012) found strong correlation between spiritual intelligence and self efficacy. His findings suggested that males were more spiritually intelligent and self efficient. According to Tierney & Farmer (2002), self efficacy strengthens employee belief on their potential and creativity, which in the end ensures performance beyond the expectations. Empirical research indicated a strong and consistent linkage of self-efficacy with productive outcomes. According to Prussia, Anderson & Manz (1998), effective utilization of enhancing strategies improve self efficacy perceptions of employee and these positive perceptions of self-efficacy significantly ensured subsequent performance. Jawahar et al. (2008) added that self efficacy is strong predictor of employees' task performance. Luszczynska et al. (2005) added that individuals possessing high self efficacy prefer to perform more challenging tasks, set higher goals, stick to them and show high task performance. Similarly, Davis, Fedor, Parsons & Herold (2000) believed that performance affects self efficacy. Gibson (2001) found a close relationship between self efficacy and effectiveness, specifically in health sector, those employees who possessed low self efficacy enhanced their level through training and their individual self efficacy in contrast to other individuals showed best group efficacy and increased performance in organizations.

According to Chen, Gully and Eden (2004) employees with belief of high self efficacy excel in organization, they realize their self worth in relation to their capabilities and their input increases their performance. Their findings suggested that general self efficacy along with specific self efficacy increased their self confidence towards organization and themselves.

Axtel & Parker (2003) studied self efficacy and found it effective in organizational settings, while Duggleby et al. (2009) suggested that spiritual tendency of employees along with self efficacy gives positive outcomes. Lin, Baruch and Shih (2011) found self efficacy to be an effective mediator between other variables and performance. They added that various practices give birth to self efficacy and this output in relation to its input place speedy effects on outcomes like increased performance. Boglera (2004) observed positive influence of self efficacy on individual task performance as well as on organizational citizenship behavior.

In context of the above literature following hypotheses were developed:

Hypothesis 3. Self efficacy mediates the relationship between spiritual intelligence and employee task performance

Hypothesis 4. Self efficacy mediates the relationship between spiritual intelligence and organizational citizenship behavior

Collectivism as a moderator

Individuals define themselves in their cultural context, as values, beliefs and norms of a culture are learned by its individuals. Jurkiewicz and Giacalone (2004) suggested that there is a need to identify the moderating variables that could possibly affect the significant positive relationship of spiritual intelligence with the performance of individuals in organizations i.e. personal ethics, culture, etc. According to Moalosi (2012) in collectivist cultures individuals have a tendency towards group-orientation and hold more socially responsible attitude. Gómez, Kirkman and Shapiro (2000) found that in collectivist cultures employees are more cooperative and cohesive in their attitudes towards task performance and more committed, satisfied and trustful towards other organizational members and organizations. According to Moorman and Blakely (1995) when individuals exhibit collectivistic values or norms in work settings, they are more likely to perform citizenship behavior. They look for ways which are not related to their interest but are contributing to the welfare of the other members and organization. Employees with collectivistic orientation prefer to go beyond their task responsibilities and offer help, take initiative and exhibit organizational citizenship behavior at best. Euwema, Wendt and Emmerik (2007) examined that societal culture reflects national culture, which significantly affects organizational citizenship behavior of groups. Culture was found an affective moderating variable for

the study. Wimsatt and Gassenheimer (2000); Erdogan and Liden (2006) also highlighted the role of collectivism as moderator among various variables. Gibson (1999) identified close relationship of this cultural dimension with the performance of employees. Chen, Chen and Meindl (1998) identified that cooperation, trust, accountability, communication; goal sharing, structure of rewards and incentives are core features of collectivist culture, which significantly affect the outcomes.

Earley (1993) strongly recommended the understanding of context for analysis of employees' performance. According to him individualist approach could not work in group context, while collectivistic approach seemed inappropriate in individual pro work environment. Furthermore, the behaviors are shaped and approved by members who in contrast strongly affect performance, while Man and Lam (2003) found different strategies with effective, prominent and promising outcomes in individualistic rather than in collectivistic teams.

Therefore, the following hypotheses are developed:

Hypothesis 5. Collectivism positively moderates the relationship between spiritual intelligence and employee performance

Hypothesis 6. Collectivism positively moderates the relationship between spiritual intelligence and organizational citizenship behavior.

THEORETICAL FRAMEWORK

FIGURE 1
Conceptual framework for the study
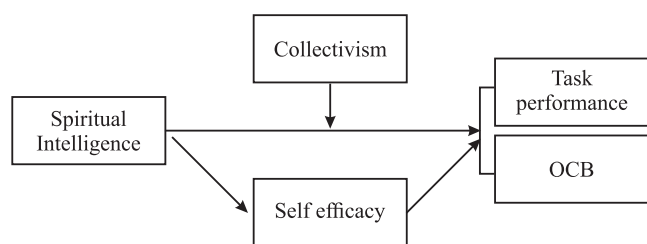
RESEARCH METHODOLOGY

Sampling procedure and population

The current study is a cross sectional study, where unit of analysis is an individual. Health sector is focused for the exploratory study, whereas the sample size for the study is 400 and population consisted of doctors holding different positions. According to PMDC (2013) there are around 132,988 registered doctors in Pakistan,

and 53,252 registered MBBS doctors only in Punjab and Federal area, out of which 28,721 are male while 24,531 are female doctors. Non-probability, snowball sampling technique was used to draw the sample; initially family doctors were contacted and asked for their cooperation, and later hospitals were visited with their reference for data collection.

Out of 400 questionnaires 313 were received back with a response rate of 78%. The respondents were dominated by males with 57%, while female respondents were about 42%, out of which 31% were single and 68% were married. 3% respondents were between 25 to 30 years old, 33% respondents were between 31 to 35 years old, 36% respondents were aged between 36-40 years, while about 29% respondents were between 41 to 50 years old. Most of the respondents were MBBS (47%), while 31% were FCPS medicine specialized and 21% were FCPS surgeon. Majority of respondents were medical officers in their respective hospitals, while 19% were senior medical officers and 20% were additional medical officers; only 11% of the respondents were principal medical officers. 21% of the doctors had more than 10 years of experience.

Instrumentation

The data were collected using survey method. Already developed questionnaires were adopted for each variable. The validated measures for the spirituality scale developed by Ashmos and Duchon (2005) was used; first 9 questions were about the doctors dealing with their community, further 7 question were about task achievement and meaning at work and last five questions were reflection of their personal attitude, self and inner life; how they consider their progress in life in that scenario. To access doctors' self efficacy, perceived general self efficacy scale of Schwarzer & Jerusalem, (1995) used by Zarrafshani et al. (2008), for collectivism scale developed by Gaines, Marelich & Bledsoe, (1997) was used; for task performance Becker & Kernan (2003) scale used by Tuttle, Matthew D, (2009) was adopted. For OCB a scale developed by MacKenzie et al. (1994) was used; where first two questions were about altruism, next five about conscientiousness and last three questions were about civic virtue. All instruments were converted into 5-point Likert scale where "1=strongly disagree" and "5 =strongly agree" to maintain the clarity for the respondent.

RESULTS

Table (1) shows the results of correlation analysis, along with the Cronbach's Alpha values of each variable in parenthesis, to show the reliability of the scales adopted.

TABLE 1
Correlation Analysis

S#	Variable	Mean	S.D.	1	2	3	4	5
1	Spiritual Intelligence	4.41	0.29	(.812)				
2	Self efficacy	4.52	0.33	.406**	(.799)			
3	Collectivism	4.45	0.35	.302**	.203**	(.771)		
4	Task performance	4.46	0.39	.411**	.253**	-.040	(.805)	
5	OCB	4.42	0.38	.213**	.204**	.157**	.066	(.867)

***p< .001, **p< .005, *p< .01

TABLE 2
Regression Analysis for outcomes

Predictors	Task Performance			OCB		
	β	R²	ΔR²	β	R²	ΔR²
Step I						
Control Variables		.022			.010	
Step II						
Spiritual intelligence	.551***	.187	.165***	.285	.056	.046

Dependent variables: Task performance, OCB, ***p< .001

Table (1) is the Pearson correlation analysis which indicates the nature of relationship among the variables, how these variables associated with each other and Cronbach's alpha values for reliabilities. Mean and standard deviation values of all variables are also given. The tables indicates that Spiritual intelligence has a significant and positive correlation with doctor's Task performance with a value of .411** or about 41%, while with OCB .213** or 21% association. The positive relationship shows that these variables have direct relationship between them i.e. increased spiritual intelligence attitude by doctors would increase their task performance as well as their organizational citizenship behavior. The correlation table also indicates that their task performance has negative relationship with collectivism with a correlation value of -.040 as the negative sign with the value indicates an inverse relationship i.e. the more doctors' concerned with collective benefits they would have a lesser concern with their individual tasks and vice versa. Rests of the variables have significant positive relationship among them. The value .406** shows that the strength of association of 40% between these variables and has a direct relationship i.e. greater the doctor's spiritual intelligence, greater will be his level of self efficacy, while for collective benefits the value is .302** 0r 30%.

All hypotheses were tested through separate regression analyses using Barron and Kenny (1986) method, to find empirical evidence for the assumptions. Table (2) shows the results of the regression analysis for outcomes. In Step 1 demographic variables like gender, marital status, qualification, etc were controlled to scratch their influence from the analysis, which represented a value of R^2 .022. In step 2, spiritual intelligence was regressed on task performance and OCB, which showed the relationship to be significant at β = .551, t (7.870), p =.000, and β = .285, t (3.840), p =.000 respectively, with overall fitness of the model, F= 10.042, p = .000 and 2.587, p=.013.

TABLE 3
Mediated Regression Analysis

Predictors	Task Performance			OCB		
	β	R²	ΔR²	β	R²	ΔR²
Step I						
Control Variables		.022			.010	
Step II						
Self efficacy	.288**	.083	.060	.246***	.056	.046
Step III & IV						
Spiritual intelligence	.499***	.195	.112	.202**	.075	.019

IV = Spiritual intelligence, Mediator = self efficacy, DV = Task performance & OCB

TABLE 4
Moderated Regression Analysis

Predictors	Task Performance			OCB		
	β	R^2	ΔR^2	β	R^2	ΔR^2
Step I						
Control Variables		.022			.010	
Step II						
Spiritual Intelligence	.624***			.247**		
Collectivism	-.201***	.217	.195	.105*	.064	.054
Step III						
Spiritual Intelligence × Collectivism	.581***	.246	.029	-.421**	.080	.016

*Dependent variables = task performance & OCB, ***p < .0011, *p < .05*

The R^2 value .187 showed that about 18% of association between doctors' task performance and their spiritual intelligence, while in case of OCB the value of R^2 = .056 showed 5 % of association between spiritual intelligence capabilities and OCB. The β values showed that the 55% variation in task performance was caused by spiritual intelligence, while for OCB the sensitivity score was 28%. Thus, hypothesis hypotheses one and two were fully supported.

According to the hypotheses three and four, the above mentioned direct association is mediated by self efficacy. It is a specified given cause that works indirectly through a more direct cause to a final effect. Self efficacy adds to the overall variance accounted for in the model and explains how the direct relationship works. Based on a theoretical model, it was proposed that spiritual intelligence in doctors indirectly affects their task performance and OCB through the mediating cause of a general self efficacy.

The value of R^2 = .022 and 010 in first step represent value of controlled demographic variables. Step 2 of the mediation model shows that the mediator controlling for the scores, is significant with β =.288, t = 4.475, p =.000 & F = 3.919 at .000 level for task performance, while for OCB beta value is β = .246, t = 3.834, p= .000, F = 2.580 with p = .013. Step 3 & 4 of the analyses revealed that, controlling for the mediator self efficacy, scores were still significant predictor of task performance and OCB with β = .499, t = 6.502, p =.000, while F stat is 9.177 for task, similarly, β = .202, t = 2.496, p = .013, while F stat is 3.015 with p = .002 for OCB, indicating partial mediation. Therefore, self efficacy partially mediates the relationship between spiritual intelligence and the doctor's task performance and OCB. This states that enhanced general self efficacy of doctors could account for a significant amount of variance in the relationship between potential use of spiritual intelligence to their improved task performance and OCB. The model predicted that higher the doctor's elf efficacy higher will be their task performance and OCB.

Table (3) shows the results of the moderated regression analysis, to see whether collectivism moderated the relationship between use of Spiritual intelligence and Task performance & OCB. The overall model was significant, F = 10.996, p = .000. In first step value of controlled demographics represents R^2 value of 0.02. Next, the spiritual intelligence and culture were entered to find their score in the analysis and found R^2 at .217, ΔR^2 = .195, F stat = 10.531, p=.000; while β = .624 for spiritual intelligence and for collectivism β = - .201. The value of R^2 = .217 of collectivism shows strength of relationship among these variables is about 25%, while in case of OCB the sensitivity of relationship score remained 6%. And in the final step, an interaction term between spiritual intelligence scores and collectivism scores shows that it is accounted for a significant proportion of the variance in total scores with β = .581, R^2 = .246, ΔR^2 = .029 p = .001.

The value of R^2 at .246 shows the relationship when in contrast with spiritual intelligence for task performance. ΔR^2 = .029 shows that change in original R square is about 2%.

In case of OCB the results showed that it was accounted for a significant proportion of the variance in total scores with control variable R^2 = .010, β of spiritual intelligence = .247, p = .00 and for collectivism β = .105, R^2 = .064, ΔR^2 = .054. The interactional term showed β =. 421, R^2 = .080, ΔR^2 = .016. The current model was consistent with the hypotheses five and six that collectivist culture of Pakistan positively moderates the relationship between spiritual intelligence and doctors' task performance, as well as between spiritual intelligence and OCB. Thus, the high collectivism scores indicated an increased potential of spiritual intelligence, which is complementing their task performance as well as OCB. Therefore, the existence of spiritual intelligence and a collectivist tendency in Pakistani doctors significantly enhances their task performance as well as OCB.

DISCUSSION

This study was conducted to uncover the expression of spiritual intelligence exercised by individual doctors at their duties. The results indicated that task performance and OCB are explained by spiritual intelligence and there is positive relationship between doctor's spiritual intelligence and their task performance. The results are consistent with previous studies (Hanafai, 2010), where same relationship was found affective. Positive relationship was found between spiritual intelligence and OCB; results are aligned with Geh (2009) findings. Values also reflect that self efficacy is the possible outcome of spiritual intelligence, which further affects doctors' task performance and their OCB. Spiritual intelligence optimized doctors' self efficacy capability; feelings of self sufficiency and self reliance not only improved their task performance but also enhanced their role of civic virtue, their potential of conscientiousness and affectivity in form of altruism. The empirical results support the hypotheses and also showed that culture significantly moderates the relationship between spiritual intelligence and task performance in a positive way. While, in case of relationship between spiritual intelligence and OCB, collectivist culture has mixed influence, whereas, with contrast of spiritual intelligence its combined effect remained positive.

Based on Barron and Kenny (1986) method, it has been empirically proven that the relationship between spiritual intelligence and task performance, as well as OCB is significant and stronger as indirect relationship; although, self efficacy does partially mediate the relationship. Because the path analysis showed that it remained affective till third step and could not worked at last step, thus the mediating hypotheses three and four were partially accepted. The overall results indicate that the hypothesized model has achieved model fitness and the hypotheses were supported.

The empirical findings also proved that doctors in Pakistan willingly exhibit high level of spiritual intelligence, which is an expression of their spiritual maturity at individual and organizational level. Furthermore, the findings proved that self efficacy is not the only product of spiritual intelligence; there are multiple outcomes of this single phenomenon. Thus, self efficacy could not fully mediate this relationship. In addition, findings also suggest that due to increased influence of globalization and media, Pakistani society is moving from collectivistic culture to individualistic culture, the mixed expression of attitude.

Culture plays a significant role among existing relationships. In case of task performance, collectivism has a negative impact while in existence of spiritual intelligence, whereas combined effect remained positive

and employees also focused on their task. However, in case of the relationship between spiritual intelligence and OCB, collectivism played a positive role, but on the other hand, with spiritual intelligence the negative sign showed that freedom of expression and individual spiritual tendencies are now influenced by culture. Media has reduced its spiritual extreme expression and now moderated level spiritual expression forces individuals for a bounded expression of OCB.

The present study seems to be a possible extension of Hashim's (2013) work on spirituality in which he specifically recommended that spirituality must be studied with OCB in different culture to find out its role. Essentially, in Pakistan doctors consider themselves morally obliged to work for the welfare of their countrymen and help them to reduce their sufferings, they posses spiritual intelligence and express their inner self, their sense of community, emphasis on meaningful work from their side and show improved individuals task performance as well as OCB for collective benefits. The findings of this study also compliment the the Ashmos and Duchons (2005) findings with similar construct. In specific culture, individual values and attitudes are shaped by their spiritual beliefs. Use of spiritual intelligence reflects their spiritual maturity in changing scenarios where situations are unpredictable for both the doctors and their patients. In chaos or certainty, a doctor's self efficacy along with his technical expertise is believed to have an important impact on many attitudes and behaviors. It not only makes him/her a better performer in this job, but also an excellent member of his organization and a better citizen of his country as well. This sense of responsibility and self reliance brings maturity in their actions and proceedings.

CONCLUSION

Religiosity and spirituality are undeniable and significant parts of every individual's personality in Pakistan. Their inner self moves along with actual work activities and makes their job meaningful, while welfare of the community is their ultimate choice with vigorous actions. This religious and spiritual dimension remained dominant for decades. The enhanced collectivism has numerous benefits; now mixed culture is also being experienced by countrymen with both individualistic and collectivistic tendencies. Furthermore, spiritual intelligence enhances self efficacy, which further influences task performance and OCB, while collectivist culture significantly performs its due role.

The results of this research have important implications and limitations. The findings imply that doctors as employees express spiritual maturity and self efficacy and this self efficacy is responsible for

their improved task performance and OCB. Moreover, the collectivist culture discourages focus on individual benefits and promotes collective welfare. Results proved that Pakistani doctors are concerned with their OCB as well as their individual task but increased emphasis on moderate expression of religiosity and spirituality bounds them to exhibit controlled attitude and behavior. Secondly, there is shift in culture from collectivist to individualist thus it also emphasizes on bounded expression of spiritual maturity for OCB to maintain a balance in a country, where people of different religions and spiritual tendencies have equal rights and freedom of expression. There is a need to further study the role of mix culture in country and assess its multiple dimensions.

As scores come up with variation as expected by the researcher, the study may also have implications for other researchers, practitioners, and scholars in health sector. The findings of this study may provide hospitals' management with a rationale for designing and implementing programs for spiritual grooming so that they may find ways to enhance doctors' spiritual capabilities. It is important to notify that the contextual and cultural factors which have influence on spiritual expression are different in different organizations.

Limitations

The study has few limitations, although the sample size was large enough to generalize assumptions and findings to other work settings, yet results need to be interpreted with caution. Secondly, application of the measures originally designed in other cultures to the Pakistani sample is debatable because of variation in perceptions and conceptions make difference, despite having sufficient reliabilities and acceptable model fitness. Pakistani doctors have their own and unique perceptions and application of spiritual intelligence that are for sure different from those constructed in the Western and other cultures to some extent. Thirdly, the respondent filled questionnaire on the basis of their perception and understanding about them, there is chance of error.

Recommendations

After the extensive work the researcher has few recommendations. Firstly, the spiritual intelligence or spiritual maturity must be expressed by the doctors with positive expectations to enhance task as well as OCB. Secondly, training programs need to be organized by hospitals for both doctors and patients, to ensure its real existence and implementations.

Future Research Directions

For future researches the researchers need to assess effects of spiritual intelligence in relation with other variables, like impression management and integrity in Pakistani culture. It would produce more interesting results across cultures. There is a strong need of spiritual maturity by individuals in organizations; assignments can be given to policy makers, practitioners and future researchers to work on this issue. The study can also be episodic and longitudinal to get better results and confirm maturity and progress of behavioral changes.

At the end the author is strongly in favor of spiritual intelligence expression by doctors and other professionals for positive outstanding outcomes as in Pakistani context religion and spirituality are dominant factors, people are spiritually mature but there is strong need to differentiate between these two keeping in mind that there is no alternative for spirituality.

REFERENCES

Adeyemo, D. A., & Adeleye, A. T. (2008). Emotional intelligence, religiosity and self-efficacy as predictors of psychological well-being among secondary school adolescents in Ogbomoso, Nigeria. *Europe's Journal of Psychology*,4(1).

Affeldt, D. L., MacDonald, D. A. (2010). The relationship of spirituality to work and organizational attitudes and behaviors, In a sample of employees from a health Care system. *The Journal of Transpersonal Psychology*, 42(2), 192-208.

Amram, Y. (2007). Paper presented at the 115th Annual Conference of the American Psychological Association San Francisco, CA.

Amram, Y., & Dryer, D. C. (2008). Paper Presented at the 116th Annual Conference of the American Psychological Association Boston, MA.

Ashmos, D. P., & Duchon, D. (2000). Spirituality at work: A conceptualization and measure. *Journal of Management Inquiry*, 9(2), 134-145.

Axtell, C. M., & Parker, S. K. (2003). Promoting role breadth self-efficacy through involvement, work redesign and training. *Human Relations*, 56(1), 113–131.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1-26.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*,51(6), 1173-1182.

Becker, T. E., & Kernan, M. C. (2003). Matching commitment to supervisors and organizations to in-role and extra-role performance. *Human Performance*, 16(4), 327-348.

Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. *Teaching and Teacher Education*, 20(3), 277-289.

Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. *Teaching and Teacher Education*, 20(3), 277-289.

Burkhart, H. V. (2006). The Interaction Effect of Spirituality and Negative Life Experiences on Depression. Master's Theses, Dissertations and Graduate Research Overview. Paper 31.

Chen, C. C., Chen, X. P. & Meindl, J. R. (1998). How Can Cooperation Be Fostered? The Cultural Effects of Individualism-Collectivism. *The Academy of Management Review*, 23(2), 285-304.

Chen, G., Gully, S. M. & Eden, D. (2004). General Self-Efficacy and Self-Esteem: Toward Theoretical and Empirical Distinction between Correlated Self-Evaluations. *Journal of Organizational Behavior*, 25(3), 375-395.

Chin, S. T. S., Anantharaman, R. N., & Tong, D. Y. K. (2011). The roles of emotional intelligence and spiritual intelligence at the workplace. *Journal of Human Resources Management Research*, 2011, 1-9.

Ciarrocchi, J. W., Dy-Liacco, G. S., & Deneke, E. (2008). Gods or rituals? Relational faith, spiritual discontent, and religious practices as predictors of hope and optimism. *The Journal of Positive Psychology*, 3(2), 120-136.

Davis, W. D., Fedor, D. B., Parsons, C. K., & HeroldSource D. M. (2000). The Development of Self-Efficacy during Aviation Training. *Journal of Organizational Behavior*, 21(8), 857- 871.

Duchon, D., & Plowman, D. A. (2005). Nurturing the spirit at work: Impact on work unit performance. *The Leadership Quarterly*, 16(5), 807-833.

Duggleby, W., Cooper, D., & Penz, K. (2009). Hope, self-efficacy, spiritual well-being and job satisfaction. *Journal of Advanced Nursing*, 65(11), 2376-2385.

Earley, P. C. (1993). East Meets West Meets Mideast: Further Explorations of Collectivistic and Individualistic Work Groups. *The Academy of Management Journal*, 36(2), 319-348.

Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the Psychology of Religion*, 10(1), 3-26.

Erdogan, B., & Liden, R. C. (2006). Collectivism as a Moderator of Responses to Organizational Justice: Implications for Leader-Member Exchange and Ingratiation. *Journal of Organizational Behavior*, 27(1), 1-17.

Euwema, M. C., Wendt, H., & Emmerik, H. V. (2007). Leadership Styles and Group Organizational Citizenship Behavior across Cultures. *Journal of Organizational Behavior*, 28(8), 1035-1057.

Farh, J. L., Hackett, R. D., & Liang, J. (2007). Individual-level cultural values as moderators of perceived organizational support–employee outcome relationships in China: Comparing the effects of power distance and traditionality. *Academy of Management Journal*, 50(3), 715-729.

Gaines Jr, S. O., Marelich, W. D., Bledsoe, K. L., Steers, W. N., Henderson, M. C., Granrose, C. S., ... & Yum, N. (1997). Links between race/ethnicity and cultural values as mediated by racial/ethnic identity and moderated by gender. *Journal of Personality and Social Psychology*, 72(6), 1460-1476.

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books.

Gardner, H. (1993). Multiple intelligences: The theory in practice. New York: Basic Books.

Gardner, H. (1999). Intelligence reframed: Multiple intelligences for the 21st century. New York: Basic Books.

Geh, Z. Y. E. (2009). A study of the effects of mediators between spirituality at work and organizational citizenship behaviors.

Gibson, C. B. (1999). Do They Do What They Believe They Can? Group Efficacy and Group Effectiveness across Tasks and Cultures. *The Academy of Management Journal*, 42(2), 138-152.

Gibson, C. B. (2001) Me and Us: Differential Relationships among Goal-Setting Training, Efficacy and Effectiveness at the Individual and Team Level. *Journal of Organizational Behavior*, 22(7), 789-808.

Gómez, C., Kirkman, B. L., & Shapiro, D. L. The Impact of Collectivism and In-Group/Out- Group Membership on the Evaluation Generosity of Team Members. *The Academy of Management Journal*, 43(6), 1097-1106.

Gotsis, G., & Kortezi, Z. (2008). Philosophical Foundations of Workplace Spirituality: A Critical Approach. *Journal of Business Ethics*, 78(4), 575-600.

Gotsis.G., and Kortezi, Z. (2008). Philosophical Foundations of Workplace Spirituality: A Critical Approach. *Jorrnal of Business Ethics*, 78(4), 575-600.

Gupta, G. (2012). Spiritual intelligence and emotional intelligence in relation to self-efficacy and self-regulation among college students. *Int J Social Sci Interdisciplinary Res*, 1(2), 60-9.

Hashim, J. (2013). Spirituality, integrity and counterproductive work behaviours among employees of selected Islamic organisations in Malaysia, 14-16.

Hosseini, M., Elias, H., Krauss, S. E., & Aishah, S. (2010). A review study on spiritual intelligence, adolescence and spiritual intelligence, factors that may contribute to individual differences in spiritual intelligence, and the related theories. *International Journal of Psychological Studies*, 2(2), 179-188.

Howard, B. B., Guramatunhu-Mudiwa, P., & White, S. R. (2009). Spiritual intelligence and transformational leadership: A new theoretical framework. *Journal of Curriculum and Instruction*, 3(2), 54-67.

Javadi, M. H. M., Mehrabi, J., Jamkhaneh, H. B., &Samangooei, B. (2012) Studying the Impact of Emotional Intelligence and Spiritual Intelligence on Organizational Entrepreneurship. *Australian Journal of Basic and Applied Sciences*, 6(9), 378-384.

Javanmard, H. (2012). The impact of spirituality on work performance. *Indian Journal of Science and Technology*, 5(1), 1961-1966.

Jawahar, I. M., Meurs, J. A., Ferris, G. R., & Hochwarter, W. A. (2008). Self-efficacy and political skill as comparative predictors of task and contextual performance: A two-study constructive replication. *Human Performance*,21(2), 138-157.

Jurkiewicz, C. L., & Giacalone, R. A. (2004). A Values Framework for Measuring the Impact of Workplace Spirituality on Organizational Performance. Journal of Business Ethics, 49(2), 129-142.

Khirzan, A. K. B. O. M., Rahman, B., Malik, A. M. A., & Wahab, S. (2012). THE INFLUENCE OF MULTIPLE INTELLIGENCE ON CAREER ORIENTATION: THE VALIDATION OF HAMBA MULTIPLE INTELLIGENCE SCALE. *Bilgi Ekonomisi ve Yönetimi Dergisi*, 7(2), 1-15.

King, J. E., &. Williamson, I. O. (2005). Workplace Religious Expression, Religiosity and Job Satisfaction: Clarifying a Relationship. *Journal of Management, Spirituality & Religion*, 2(2), 173-198.

Kolodinsky, R. W., Giacalone, R. A., & Jurkiewicz, C. L. (2008). Workplace Values and Outcomes: Exploring Personal, Organizational, and Interactive Workplace Spirituality. *Journal of Business Ethics*, 81(2), 465-480.

Krejsler, J. B. (2013). What works in education and social welfare? A mapping of the evidence discourse and reflections upon consequences for professionals. *Scandinavian Journal of Educational Research*, 57(1), 16-32.

Lin, C. P., Baruch, Y., & Shih, W. C. (2012). Corporate social responsibility and team performance: The mediating role of team efficacy and team self-esteem. *Journal of Business Ethics*, 108(2), 167-180.

Luszczynska, A., rrez-Don˜a, B. G. & Schwarzer, R. (2005). *International Journal of Psychology*, 40(2), 80–89.

Luszczynska, A., & Schwarzer, R. (2005). Social cognitive theory. *Predicting Health Behaviour*, 2, 127-169.

Malik, M. E., Naeem, B., & Ali, B. B. (2011). Sales Force Organizational Citizenship Behavior: Role of Meaning at work and Conditions for Community. *Interdisciplinary Journal of Contemporary Research In Business*, 3(8), 654-666.

Man, D. C., & Lam, S. S. K. (2003). The Effects of Job Complexity and Autonomy on Cohesiveness in Collectivistic and Individualistic Work Groups: A Cross-Cultural Analysis. *Journal of Organizational Behavior*, 24(8), 979-1001.

Maxwell, E. (1998). "I can do it myself!" Reflections on early self-efficacy. *Roeper Review*, 20(3), 183-187.

Milliman, J., Czaplewski, A. J., & Ferguson, J. (2003). Workplace spirituality and employee work attitudes: An exploratory empirical assessment. *Journal of Organizational Change Management*, 16(4), 426-447.

Moalosi, W. T. S. (2012). Cultural Concepts of Learning and Development. *International Journal of Scientific Research in Education*, 5(4), 287-291.

Moodley, T. (2008). The relationship between coping and spiritual well-being during adolescence. Dissertation submitted to University of the Free State, Bloemfontein.

Moorman, R. H., Blakely, G. L. (1995) Individualism-Collectivism as an Individual Difference Predictor of Organizational Citizenship Behavior. *Journal of Organizational Behavior*, 16(2), 127-142.

Mosley, D. C. Jr., Boyar, S. L., Carson, C. M., & Pearson, A. W. (2008). A Production Self- efficacy Scale: An Exploratory Study. *Journal of Managerial Issues*, 20(2), 272-285.

Oman, D., Flinders, T., & Thoresen, C. E. (2008). Integrating spiritual modeling into education: A college course for stress management and spiritual growth. *The International Journal for the Psychology of Religion*,18(2), 79-107.

Osman-Gani, A. M., Hashim, J., & Ismail, Y. (2010). Effects of religiosity, spirituality, and personal values on employee performance: *A Conceptual Analysis*, 11-14.

Patel, C. J., & Shikongo, A. E. E. (2006). Handling Spirituality/Religion in Professional Training: Experiences of a Sample of MuslimPsychology Students. *Journal of Religion and Health*, 45(1), 93-112.

Probst, T. M., & Strand, P. (2010). Perceiving and responding to job insecurity: a workplace spirituality perspective. *Journal of Management, Spirituality & Religion*, 7(2), 135-156.

Prussia, G. E., Anderson, J. S., & Manz, C. C. (1998). Self-leadership and performance outcomes: The mediating influence of self-efficacy. *Journal of Organizational*

Behavior, 19(5), 523-538.

Rani, A. A., Abidin, I., & Hamid, M. R. (2013). The impact of spiritual intelligence on work performance: Case studies in government hospitals of east coast of Malaysia. *The Macrotheme Review*, 2(3), 46-59.

Robertson, L. H. (2007). Reflections on the Use of Spirituality to Privilege Religion in Scientific Discourse:Incorporating Considerations of Self Source. *Journal of Religion and Health*, 46(3), 449-461.

Shah, T., & Ellahi, A. (2012). 2nd international conference on management (2nd icm 2012) proceeding 11th - 12th june 2012. Holiday villa beach resort & spa, langkawi kedah, malaysia.

Shapiro, S. L., Oman, D., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Cultivating mindfulness: effects on well-being. *Journal of Clinical Psychology*, 64(7), 840-862.

Soebyakto, B. B., & Ming, C. W. (2012). An empirical testing of intelligence, emotional and spiritual quotients quality of managers using structural equation modeling. *International Journal of Independent Research and Studies*, 1(1), 1-12.

Speier, C., & Frese, M. (1997). Generalized self efficacy as a mediator and moderator between control and complexity at work and personal initiative: a longnitudinal field study in east Germany. *Human Performance*, 10(2), 171-192

Srivastava, A., & Misra, S. (2012). Is Spiritual Quotient a better tool of success: Spirituality in the new world order. *EXCEL International Journal of Multidisciplinary Management Studies*, 2(1), 256-266.

Staines, G. L. (1980). Spillover versus compensation: A review of the literature on the relationship between work and nonwork. *Human Relations*,33(2), 111-129.

Stajkovic, A. D., Lee, D. & Nyberg, A. J. (2009) Collective Efficacy, Group Potency, and Group Performance: Meta-Analyses of Their Relationships, and Test of a Mediation Model. *Journal of Applied Psychology*, 94 (3), 814–828.

Tierney, P., & Farmer, S. M. (2002). Creative Self-Efficacy: Its Potential Antecedents and Relationship to Creative Performance. T*he Academy of Management Journal*, 45(6), 1137-1148.

Triandis, H. C. (2001). Individualism-collectivism and personality. *Journal of Personality*, 69(6), 907-924.

Tuttle, Matthew D., "True North or Traveled Terrain? An Empirical Investigation of Authentic Leadership" (2009). Graduate School Theses and Dissertations.

Ullah Bukhari, Z. (2009). Key antecedents of organizational citizenship behavior (OCB) in the banking sector of Pakistan. *International Journal of Business and Management*, 3(12), 106-116.

Walsh, K., King, M., Jones, L., Tookman, A., & Blizard, R. (2002). Spiritual beliefs may affect outcome of bereavement: prospective study. *BMJ*,324(7353), 1551-1559.

Wimsatt, A. M., & Gassenheimer, J. B. (2000). The Moderating Effects of Cultural Context in Buyer-Seller Negotiation. *The Journal of Personal Selling and Sales Management*, 20(1), 1-9.

Zarafshani, K., Knobloch, N. A., & Aghahi, H. (2008). General perceived self-efficacy of Iranian College of Agriculture students. *Journal of International Agricultural and Extension Education*, 15(1), 69-84.

Zhang, J. X., & Schwarzer, R. (1995). Measuring optimistic self-beliefs: A Chinese adaptation of the General Self-Efficacy Scale. Psychologia: *An International Journal of Psychology in the Orient*, 38(3), 174-181.

IMPACT OF ENVY ON INTERPERSONAL CONFLICT WITH MEDIATING ROLE OF SCHADENFREUDE AND MODERATING ROLE OF WORK ETHICS AMONG NURSES IN PAKISTAN

NIDA ABBAS
SANA FARZAND ALI
SYEDA FIZZA
Capital University of Science & Technology, Islamabad, Pakistan

ABSTRACT

The objective of this study was to examine the impact of envy on interpersonal conflict, through the mechanism of schadenfreude and the moderating effect of work ethics, among nurses in Pakistan. Convenient sampling technique was used in order to draw the sample. Data were collected from 200 employed nurses who had been working at different levels in Pakistani hospitals. Regression analysis was run in order to test the hypotheses. Study findings suggested that Envy is positively associated with interpersonal conflict, while schadenfreude partially mediates this relationship. In addition, work ethics moderates the association such that it weakens the positive relationship between schadenfreude and interpersonal conflict. The paper concludes by discussing the limitations as well as future research directions.

INTRODUCTION

Man cannot survive in this world in isolation. He is bound to live in a society and as a result develops interpersonal relationships. These relationships may have a huge positive impact on an individual's life (Berscheid & Reis, 1998), but there is a darker side to these relationships. A study by Veroff, Douvan, & Kulka, (1981) found that interpersonal conflicts are the most common cause of sadness among employees. In literature, interpersonal conflict has been defined in numerous ways. According to Barki, & Hartwick, (2001), "it is a phenomenon that arises among symbiotic parties as a result of negative reactions to perceived disagreements and interference with the accomplishment of goals." Interpersonal conflict among individuals can arise as a result of adverse emotions.

Humans are a complex construct of nature, with manifold emotions. These emotions are one of the aspects that differentiate humans from animals, as humans experience multifaceted emotions (Panksepp, 1998; Darwin, 1998). Over the past era, a lot of research has been conducted across the world, on how employees exhibit their emotions at workplace (Rafaeli & Sutton, 1989; Ashforth & Humphrey, 1995; Wharton & Erickson, 1993; Muchinsky, 2000); as these emotions, either positive or negative can affect the overall organization (Staw, Sutton & Pelled, 1994).

Research suggests when an employee experiences positive emotions at workplace; he/she is least likely to undergo negative emotions at the same time (Fredrickson, 2003).

In today's competitive workplace, many employees are continuously facing challenges to prove their worth in their organizations. However, in order to prove themselves, they face numerous emotions, which more often than not are negative. One of such emotions, employees face is envy (Dogan, & Vecchio, 2001). Generally the term envy is an emotion that emerges in an individual when he lacks the superior quality of another person (Parrott & Smith, 1993). Envy results in the feeling of inferiority, rendering it unwelcomed in the workplace (Smith, Parrot, Ozer & Moniz, 1994). At times, envy and jealousy are used interchangeably, although these are two different emotions (Bedeian, 1995). In jealousy, the fear of losing the other person is involved; however, this fear does not exist in envy. Literature suggests that malicious envy leads to schadenfreude (DeWall, et al., 2014).

Humans are designed in such a way, that they exhibit various emotions. At one point an individual may feel sympathetic when seeing his fellows suffer, but he may feel pleased as well, simultaneously. In literature, this devilish feeling of pleasure is labeled as schadenfreude (Takahashi et al., 2009). It develops as a result of perceived inferiority (Smith et al. 1996) and is destructive for the society (Heider, 1958).

Schadenfreude is a facet of joy (Ekman, 2003). Furthermore, studies have shown that schadenfreude can result in conflict (Li, 2012; Takahashi et al., 2009; Cikara & Fiske, 2013). The current study intends to investigate "How envy can lead to interpersonal conflict through schadenfreude and how work ethics would moderate this relationship? The focus of the study is to measure the extent to which envy and schadenfreude develop interpersonal conflict among nurses in Pakistan. And to what extend work ethics control these negative emotions in the workplace. The supporting theory for the study is Social Comparison Theory presented by social psychologist Leon Festinger (1954). The social comparison theory states that humans determine their social and personal worth based on how they stack up against others. Consequently, humans are continuously evaluating themselves with others on the basis of various attributes. At time this comparison can sow the seed of hatred among individuals.

The study intends to fill the contextual gap by empirically exploring the relationship of envy and interpersonal conflict, through schadenfreude. Not only the study aims to fill this contextual gap, it intends to provide some insight into medical profession and how nursing profession can benefit from such a research. Moreover, there is a lack of any substantiated research in Pakistan in the field of management (Aycan et.al, 2000) and other related fields. Nurses are believed to be the most affected by negative emotions as they have to interact with people both within and outside the organization, on daily basis, i.e. doctors and patients, respectively. All these aspects can lead to negative emotions and interpersonal conflict. In today's competitive world, the main focus of organizations is to be more productive as compared to the competitors. For better output, the behavior of employees in an organization plays an important part. Since their actions benefit or harm the organization.

LITERATURE REVIEW

Envy and Interpersonal Conflict

Humans are the most complex machine on the face of the earth; and what make them complex are emotions. Different emotions, feelings and cognitions are what trigger behaviors. Envy, is one of those emotions that leads to certain behavioral outcomes. Word envy has been defined in several contexts, going back as farther as the biblical times, as it is one of the seven deadly sins. Merriam Webster Dictionary defines envy as "Painful or resentful awareness of an advantage enjoyed by another, joined with a desire to possess the same advantage." Over a long period of time, many scholars have defined envy, including renowned philosophers and sociologists such as Freud, Nietzsche, Rawls, Nozick and Schoeck to name a few. Rawls (1971) described envy 'as the propensity to view with hostility the greater good of others even though their being more fortunate than we are does not detract from our advantages'.

Literature suggests that people have interdependent preferences (Cabrales, 2010), which cause individuals to make comparisons on certain basis. The comparison may not be merely income based, as it must have relevance, e.g. person A might not envy person B, on the basis of income differences if B is spending his/her money on things that are not important for A (Chaudhuri, 1985). Feather and Nairn (2005), concur to the concept of personal relevance, as they suggest that envy due to the social comparison must have self-relevance for the person making comparison, i.e. only if it is in realm that holds importance for self (Heider, 1958). Only when the comparison domain is self-relevant, would an individual experience envy when the target person's possession is superior and in the absence of self-relevance, individual does not feel envy even if the possession of the target person is far superior (Takahashi et al., 2009). Even though millionaires, celebrities and leaders hold envied positions, people are most likely to envy those with whom they directly vie in their day-to-day matters (Hill & Buss, 2006).

The conflicts are said to exist whenever there are differences in the individual goals and outcomes (Jameson, 1999), as these differences occur due to difference in perception and psychic make up. Humans are social beings by nature. They grow up in families and social communities and are always a part of social and work organizations. Therefore, it is not surprising that human behaviors, affect and cognitions have a great influence on the interpersonal relationship (Frone, 2000). Interpersonal conflict is a cognitive conflict (Dhami and Olsson, 2008). The concept of Interpersonal Conflict is operationalized by many researchers, such as Barki and Hartwick (2004), who identified the three general properties associated with any conflict, i.e. Disagreement, Interference and Negative Emotion, along with the two types of targets of interpersonal conflict, i.e. task and interpersonal relation between parties. Interpersonal conflicts are often based on lack of communication, pride, emotionalism, lack of trust, hostility and frustration (Barki & Hartwrick, 2001; Scott, 2007). When individuals are tied up in interpersonal relation, the experience of tension, anxiety and anger are obvious (Fitzpatrick and Winke, 2009). Negative emotions are the important elements of the composition of personality, therefore, personality type is also one strong predictor of determining the

orientation of interpersonal conflict; although, it has a little impact than situational and relationship variables, it modes the individual reactions towards the conflict (Greenhalgh, Nelsin & Gilkey, 1985).

Once negative emotions and feelings are involved in the relationships at work, most of the times it causes the conflict at interpersonal level. This conflict can be due to differences in interests and motives. This clearly indicates that interpersonal conflict has its direct impact on the task performed at work place. Interpersonal conflict is the matter of concern, because it poses the threat to well-being of employees by increasing work related problems and ultimately it harms the team and organizational performance (Leung, 2008).

But in some instances when interpersonal conflict is purely targeted at task, it would be effective for team performance in organization (Jehn, 1997). Conversely, interpersonal conflict can become one strong reason for job dissatisfaction. However, interpersonal conflict's adverse effects are less likely to affect job satisfaction in the presence of social support (Corts, Benitez, Boz, Munduate & Medina, 2011).

Moreover, literature also suggests that envy is one of the factors that causes conflict in the workplace (Simmel, 2010). Because employees want to dominate their peers in the workplace and if they fail to do so, they develop a feeling of envy (Cabrales, 2010). Hence, to examine the link between envy and interpersonal conflict following hypothesis is developed:

Hypothesis 1. Envy leads to interpersonal conflict

Schadenfreude as a mediator

Envy takes several forms and leads to certain behavioral outcomes based on the intensity. Barth (2008) suggested that it should be seen as a scale ranging from benign to malignant and destructive. When a person experiences envy, he/she may use different strategies in order to reduce the envious emotions. A person might try to depart from the situation or group, try to change their own behavior or finally, he/she may try to harm the other person (Nickerson & Zenger, 2008). It leads to certain behavioral outcomes; one of the most common outcomes is experiencing pleasure from the misfortune of the envied person, also known as Schadenfreude. An individual feeling envy often desires to possess the same advantage as the envied person or at times wishes the envied person a misfortune in order to reduce the envious emotions.

Numerous evidences of an established link between envy and Schadenfreude are present in literature (Hareli & Weiner, 2002; Kim, O'Neill & Cho, 2010). Envy leads

to Schadenfreude, signifying that an individual feeling stronger envy would lead to the stronger Schadenfreude, i.e. deriving pleasure from the misfortune of the other people (Takahashi, Kato, Matsuura, Mobbs, Suhara & Okubo, 2009). Sue Cowan-Jenssen (2011) in her paper Envy: Everyday and Everywhere implies that when an individual experiences envy he/she may even feel delighted if any bad luck or calamity occurs to the envied person. Likewise, Smith et al. (1996) established that Envy leads to Schadenfreude mediated by episodic envy. They proposed that a person feels happy when an envied person faces a set-back or suffers a misfortune. As envy at times causes anger and hostility, it may lead to the pleasure derived by the misfortune of the other person (Schadenfreude), mediated by these negative emotions such as anger, hostility, etc. (Hareli & Weiner, 2002). Stronger envy leads to the stronger negative emotions towards the envied person (Kim, O'Neill & Cho, 2010).

On the basis of aforementioned arguments and the words of Heraclitus: Our envy always lasts longer than the happiness of those we envy, the following hypothesis has been developed:

Hypothesis 2. Envy is positively related to the Schadenfreude

Every time we hear of a misfortunate occurrence to a person, we feel sympathetic towards them, but there are times, when an individual may feel pleased by any misfortune befalling another person. This feeling of pleasure derived by the misfortune of the other is known as Schadenfreude (Merriam Webster Dictionary). Nietzsche (1967) in his work on the genealogy of morals, differentiated between the pleasures derived from passively "seeing" someone suffer (Schadenfreude) and actively "making" others suffer. Although the definition of the term goes way back to the time of philosophers such as Nietzsche, Socrates and Plato, the empirical studies were only conducted from late 1990s and onwards. Several studies indicate the antecedents of Schadenfreude, varying from pleasure from misfortune due to envy (Smith et al., 1996; Van Dijik, et al., 2006), negative emotions such as anger and resentment (Hareli & Weiner, 2002; Van Djik et al., 2006; Feather & Sherman, 2002). Literature provides numerous evidences of an established link between envy and Schadenfreude. A large part of research considers envy as an antecedent of Schadenfreude (Takahashi, et al., 2009). Similarly, envy leads to Schadenfreude when hostile feelings of envy are incorporated as well as the likeness between the envied and the envying person (Van Dijik, et al., 2006). Apart from envy and negative emotions,

perceived deservingness of the misfortune also plays a vital role in determining the causes of Schadenfreude (Van Dijk, Ouwerkerk, Goslinga & Nieweg, 2005). If an individual feels that the person is deserving of the misfortune befalling him/her, it will result in higher Schadenfreude; on the contrary, if the perceived deservingness of the misfortune is lower, then a person would rather feel sympathetic towards a person in the face of the misfortune (Van Dijk, Ouwerkerk, Goslinga & Nieweg, 2005). Additionally, Powell and Smith (2013) in their paper Schadenfreude Caused by the Exposure of Hypocrisy in Others established that people experience strong Schadenfreude when a person who is caught in the immoral action has himself/ herself criticized others for the similar actions, which indicates that perceived hypocrisy also leads to higher Schadenfreude.

Leach, Spears, Branscombe & Doosje (2003) in their paper Malicious Pleasure: Schadenfreude at the Suffering of Another Group, have examined the nature of intergroup relationships and their impact on pleasure derived from the misfortune of the other group. They studied intergroup Schadenfreude on the basis of interest in domain, threat of an in-group inferiority and legitimacy. The results showed higher interest in the domain among group and higher threat to in-group inferiority will lead to higher Schadenfreude. On the other hand, if the other group is legitimately superior, this results in lower Schadenfreude when the in-group is urged to be honest and direct. They used Social identity theory and intergroup emotion perspective to operate intergroup Schadenfreude. The likeness or disliking of an out-group has been proven to affect interpersonal schadenfreude (Smith et al., 1996) and in response this might affect or give way to the negative emotions towards out-group whether or not they suffer misfortune (Leach, Spears, Branscombe & Doosje, 2003). This could lead to one of the many inter-group outcomes, i.e. interpersonal conflict.

Therefore, on the basis of the above argument, following hypotheses have been developed:

Hypothesis 3. Schadenfreude is positively related to the interpersonal conflict

Hypothesis 4. Schadenfreude mediates the relationship between envy and interpersonal conflict

Work Ethics as a moderator

Ethics are the code of conduct for any activity, situation, or event. These are the moral standards that an individual possess and these standards vary according to situations (Scribner, 1993). Work ethics can be defined as a set of beliefs, values and attitudes that reflect the fundamentals of work and it is an integrated construct of attitudes and beliefs related to work behavior (Miller et al., 2002). Work ethics are basically the work values. These values or attitudes and beliefs actually form the human thinking and actions and enable individuals to distinguish between right and wrong.

Work values or work ethics have been treated as a moderator in many studies. Work Ethics have been measured as moderators of task dimensions and affective responses (Aldag & Breif, 1975). Similarly, ethical climate moderated the relation of individual decision and behavior, which shows that ethics influence the individual's behavior, as behaviors are based on perceptions and situations; therefore, ethics can be related to conflicts at individual level (Barnett & Vaicys, 2000). Individuals in organizations always judge other people by making the statements like "his/ her action or decisions are not right or wrong" (Virovere, Kooskora & Valler, 2002). McCabe and Rabil (2002) argued that absence of fair treatment, ethical value, and practices can create or augment the causes of conflict in organizations. Ethics always prevent the individuals from conflicts of interest, misrepresentation of facts, lying, cover up and deceit or manipulation in the work place (Baker, 1994). Based on this, ethics could be believed to have impact on schadenfreude, as finding pleasure at someone else's misfortune can be considered anything but ethical. Therefore, the following hypothesis has been developed:

Hypothesis 5. Work Ethics negatively moderate the relationship between schadenfreude and interpersonal conflict

THEORETICAL FRAMEWORK
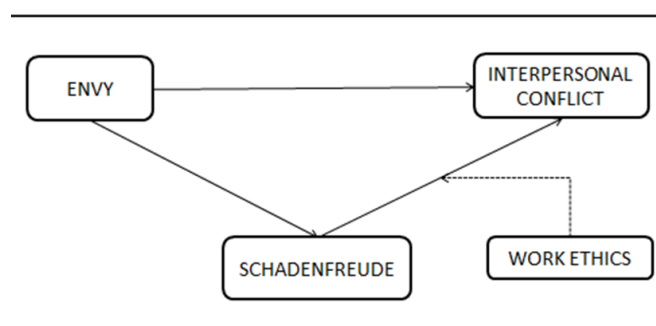
METHODOLOGY

Sample and Procedure

The present research is a cross sectional study

of descriptive nature, as research has already been conducted in this area. Moreover, it is a casual type of investigating. The unit of analysis for the study is individual as data were gathered from the nurses working in private and public hospitals in the region of Rawalpindi and Islamabad. The population of the present study consists of nursing staff currently employed in Pakistan. Convenient sampling technique was used in order to draw the samples. Almost 300 questionnaires were distributed; out of which only 200 (70.3%) questionnaires were filled completely and returned.

The sample consisted of 82% females and 17% male nurses. Out of which, 60% were between the ages of 15-25 and 33% belonged to the age group 26-35; whereas, only 3.5% respondents were over the age of 45. Among the respondents 59% had 1-5 years of work experience, 18% had less than one year of experience. However, 13.4% had 6-10 years of working experience and only 10% respondents had more than ten years of working experience. In the sample, 60.4% respondents held a bachelor degree, whereas, 39.6% of the respondents undergraduates.

Instrumentation

Data were collected using questionnaires, which have been adopted from the work of early researchers to evaluate the variables of the present study.

Envy

In order to measure envy, questionnaire developed by Vecchio (2005) was adopted. All the concepts together were evaluated using the likert scale, whereby score 1 (strongly disagree) to score 5 (strongly agree). The Cronbach's Alpha value for reliability of envy was 0.652.

Schadenfreude

For schadenfreude a questionnaires having 08 items, developed by Van Dijk et al., (2006) and James et al., (2014) were used. The Cronbach's Alpha value

for reliability of schadenfreude was 0.626 but after deleting item 24 from the questionnaire it was raised to 0.696.

Interpersonal Conflict

Interpersonal conflict was measured using five item questionnaire, adopted from the work of Spector, & Jex, (1998). The Cronbach's Alpha value for reliability of the scale was 0.617. However, after removing item number 14 from the questionnaire it was raised to 0.693.

Work Ethics

Work ethics was measured using five item questionnaire, developed by Miller, Woehr & Hudspeth, (2002). The Cronbach's Alpha value for reliability of the scale was 0.818.

RESULTS

Data were analyzed using Regression analysis, in order to test the hypotheses. Table (1) depicts mean, standard deviation, correlation and reliabilities of variables. The mean for envy and schadenfreude were 2.83 and 2.76, respectively. The correlation between these two constructs was .137*, indicating significant positive correlation between envy and schadenfreude.

Similarly, the correlation analysis further showed that envy is significantly and positive correlated with interpersonal conflict; whereas, interpersonal conflict was found to be negatively related to work ethics but with no significance.

Regression Analysis

Mediation and moderation analyses were run using Preacher and Hayes method (2008), in order to formally test the hypotheses. In all the regression tests age, gender, tenure, and education were entered as controlled variables in the first step. Mediation regression analysis was used to test the mediating role of schadenfreude between envy and interpersonal conflict.

TABLE 1
Means, standard deviation, correlation and reliabilities

	Variables	Mean	SD	1	2	3	4
1	Envy	2.83	0.85	(.652)			
2	Schadenfreude	2.76	0.65	.137*	(.696)		
3	Interpersonal conflict	3.25	0.92	.207**	.215**	(.693)	
4	Work ethics	4.28	0.58	.050	0.16	-.015	(.818)

N=211; alpha reliabilities are given in Parentheses. For correlation greater than or equal to .316 p<.05*; for correlations greater than or equal to .183; p< 0.01 **

TABLE 2
Regression Mediation Analysis

Variables paths	Interpersonal Conflict			
	Beta	**SE**	**T**	**P**
Path a: IV to M	0.11	0.05	2	0.05
Path b: M to DV	0.27	0.10	2.83	0.01
Path c: IV to DV	0.225	0.074	3.060	0.003
Path c`:	0.197	0.073	2.694	0.008

All the demographic variables (age, gander, tenure, education, and hospital type) were controlled initially, M (Mediating variable) is used i.e. schadenfreude, Path c' shows the total effect

TABLE 3
Regression Moderation Analysis

Variables	Work ethics			Direct (Interpersonal Conflict)		
	R²	**F**	**P**	**R²**	**F**	**P**
Schadenfreude	0.016	3.598	0.050	0.063	4.636	0.004

As shown in table (2) the results indicate that the relationship between envy and interpersonal conflict is significantly positive at p=0.003, leading to the acceptance of hypothesis one that envy is positively related to interpersonal conflict. Similarly, results show that envy is positively related to schedenfreude, with the significance value at p=0.05, resulting in the acceptance of hypothesis two as well. Table (2) further indicates that the relationship between schandenfreude and interpersonal conflict is also significantly positive at p=0.01, which leads to the acceptance of hypothesis three as well.

As per the regression mediation analysis, the relationship between envy and interpersonal conflict, through schandenfredue (path c`) is significant at p=0.08, leading to the acceptance of hypothesis four, i.e. schadenfreude mediates the relationship between envy and interpersonal conflict. But the direct relationship between envy and interpersonal conflict is slightly more significant at p=0.001, which means that schadenfreude partially mediates the said relationship.

To test the moderating role of workplace ethics, moderated regression analysis was performed using Preacher and Hayes method (2008). Though, as per table (2) results, schadenfreude has a significant impact on interpersonal conflict, but after incorporating work ethics as the moderator, the significance of the relationship decreases from 0.004 to 0.050; along with the decrease in the value of R² to 0.016. Therefore, moderation results conclude that work ethics moderate the relationship between schadenfreude and interpersonal conflict, such that it weakens the said relationship, hence leading to acceptance of hypothesis five.

DISCUSSION

As per the regression analyses, all the hypotheses have been accepted. The findings of the study suggest that envy does lead to the interpersonal conflict among employees, and schadenfreude mediates this positive relationship between envy and interpersonal conflict. On the other hand, by incorporating work ethics as a moderator between schadenfruede and interpersonal conflict, this relationship is buffered, leading to the conclusion that work ethics is not only negatively associated with schadenfruede and interpersonal conflict, it also negatively moderates the relationship between the two.

Although, all the results are aligned with the previous literature, the findings could further be substantiated by incorporating the contextual element. The partial mediation of the schadenfreude is explained using Hofstede's (1984) study Cultural Dimensions in Management and Planning; according to which, Pakistan being the higher power distance society, negative feelings experienced by employees at workplace, i.e. Schadenfreude, seldom result in explicit and extrovert manifestation of its consequential negative emotions, such as interpersonal conflict. Although, feeling of envy at workplace is very much common and manifested in behaviors leading to conflict, Schandenfreude, is a strong and a negative emotion that, even if experienced, is rarely admitted and reported by the employees.

Moderated Regression Analysis results show that Work ethics moderate the relationship between Schadenfreude and Interpersonal conflict, i.e. work ethics weaken the direct relationship. As backed by literature, work ethics prevent employees at workplace from experiencing negative emotions toward their co-workers, such as envy and Schadenfreude, ultimately leading to the interpersonal conflict. In Pakistani context, being a society in which religion plays a major part in day to day life and has a greater influence on

the individual's approach towards life, be it personal or professional setting, work ethics certainly play their role in simmering down the negative impact of the negative workplace behaviors and emotions.

Implications

The study could have sound implications for nurses in Pakistan. Nursing, as well as overall medical profession in Pakistan is pretty much under researched and overworked (Settle, 2010). This could help administration understand how to deal with negative work behaviors leading to the interpersonal conflicts. Nursing is a very demanding and exhausting job not only physically but emotionally; by the virtue of the fact that nurses have to deal with the patients much more than doctors, a lot of the times. Different workplace behaviors triggered by certain negative emotions not only affect the performance of the nurses but could have lasting and more serious affects on patients as well. This study is just an endeavor to provide foundation to understand how interpersonal conflicts among nurses can be reduced by incorporating work ethics and dealing with such negative emotions that can lead up to interpersonal conflicts.

LIMITATIONS

Although, the study is an attempt to get an insight into the reasons of interpersonal conflicts, it is not without certain limitations. One of the major limitations of the study is considering only one antecedent of interpersonal conflict, i.e. Envy. There are several other relevant variables that lead to Schadenfreude and Interpersonal conflict. Incorporating more variables would not only increase the model fitness but will provide the clearer picture. Apart from that the sample is taken from the Rawalpindi/ Islamabad region. In order to get more generalized results and get a bigger picture, data from across the country need to be collected.

FUTURE DIRECTIONS

This research can further be refined by incorporating more relevant variables in order to study the causes of interpersonal conflicts. Nature of relationship quality, such as Leader member exchange relationship can also help understand the antecedents of conflict. Although work ethics moderate the relationship, adding certain other variables such as personality type can give somewhat different and interesting insight into the phenomenon.

REFERENCES

Aldag, R., & Brief, A. (1975).Some Correlates of Work Values. *Journal of Applied Psychology*, 60(6), 757-760.

Ashforth, B. E., & Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. *Human Relations*, 48(2), 97-125.

Aycan, Z., Kanungo, R., Mendonca, M., Yu, K., Deller, J., Stahl, G., &Kurshid, A. (2000). Impact of culture on human resource management practices: A 10-country comparison. *Applied Psychology*, 49(1), 192-221.

Barki, H., &Hartwick, J. (2001).Interpersonal conflict and its management in information system development. *Mis Quarterly*, 195-228.

Barki, H., &Hartwick, J. (2004).CONCEPTUALIZING THE CONSTRUCT OF INTERPERSONAL CONFLICT. *International Journal of Conflict Management*, 15(3), 216.

Barnett, T., &Vaicys, C. (2000).The moderating effect of individuals' perceptions of ethical work Climate on Ethical judgement and behavioral intentions. *Journal of Business Ethics*, 47(4), 351.

Bedeian, A. G. (1995).Workplace envy. *Organizational Dynamics*, 23(4), 49-56.

Berscheid, E., & Reis, H. T. (1998).Attraction and close relationships. The handbook of social psychology, 2, 193-281.

Bobette, B. (1993). What are ethics? *Journal of the American Society of CLU & ChFC*, 47(3), 28.

Cabrales, A. (2010). The causes and economic consequences of envy.*SERIEs*, 1(4), 371-386.

Chaudhuri, A. (1985). Formal properties of interpersonal envy. *Theory and Decision*, 18(3), 301-312.

Cikara, M., & Fiske, S. T. (2013). Their pain, our pleasure: stereotype content and schadenfreude. Annals of the New York Academy of Sciences, 1299(1), 52-59.

Cowan-Jenssen, S. U. E. (2011). Envy: Everyday and Everywhere. *Psychotherapy and Politics International*, 9(1), 43-51.

Darwin, C. (1998). The expression of the emotions in man and animals.Oxford University Press.

DeWall, C. N., Gillath, O., Pressman, S. D., Black, L. L., Bartz, J. A., Moskovitz, J., &Stetler, D. A. (2014). When the Love Hormone Leads to Violence Oxytocin Increases Intimate Partner Violence Inclinations Among High Trait Aggressive People. *Social Psychological and Personality Science*, 1948550613516876.

Dhami, M., & Olsson, H. (2008).Evolution of the interpersonal conflict paradigm. *Judgment and Decision Making*, 3(7), 547-569.

Dogan, K., &Vecchio, R. P. (2001).Managing envy and jealousy in the workplace. *Compensation & Benefits Review*, 33(2), 57-64.

Douglas, M. M. (2002). Administering the employment relationship: The ethics of conflict Resolution in Relation to justice in the workplace. *Journal of Business Ethics*, 1/2, 33.

Ekman, P. (2003). Emotions revealed: Recognizing faces and feelings to improve communication and emotional life. New York, NY: Times Books.

Feather, N. T., &Nairn, K. (2005). Resentment, envy, schadenfreude, and sympathy: Effects of own and other's deserved or undeserved status. *Australian Journal of Psychology*, 57(2), 87-102.

Feather, N. T., & Sherman, R. (2002). Envy, resentment, schadenfreude, and sympathy: Reactions to deserved and undeserved achievement and subsequent failure. *Personality and Social Psychology Bulletin*, 28(7), 953-961

Ford, F., &Herren, R. V. (1993). The Teaching of Work Ethics: Current Practices of Work Program Coordinators in Georgia. Paper presented at the American Vocational Association Convention, 143.

Fredrickson, B. L. (2003). Positive emotions and upward spirals in organizations. *Positive Organizational Scholarship*, 163-175.

Gelfand, M. J., Erez, M., &Aycan, Z. (2007).Cross-cultural organizational behavior. *Annu. Rev. Psychol.*, 58, 479-514.

Greenhalgh, L., Neslin, S. A., &Gilkey, R. W. (1985). The effects of negotiator preferences, situational power, and negotiator personality on outcomes of business negotiations. A*cademy of Management Journal*, 28(1), 9-33.

Hareli, S., & Weiner, B. (2002). Dislike and envy as antecedents of pleasure at another's misfortune. *Motivation and Emotion*, 26(4), 257-277.

Heider, F. (1958).The psychology of interpersonal relations. NY: J. Wiley & Sons.

Henri, B., & Jon, H. (2001).Interpersonal conflict and its management in information system development. *MIS Quarterly*, 25(2), 194.

Hill, S. E., & Buss, D. M. (2006).Envy and positional bias in the evolutionary psychology of management. *Managerial and Decision Economics*, 27(2-3), 131-143.

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management*, 1(2), 81-99.

James, S., Kavanagh, P. S., Jonason, P. K., Chonody, J. M., &Scrutton, H. E. (2014). The Dark Triad, schadenfreude, and sensational interests: Dark personalities, dark emotions, and dark behaviors. *Personality and Individual Differences*, 68, 211-216.

Jehn, K. (1997). A qualitative analysis of conflict types and dimensions in organizational groups. *Administrative Science Quarterly*, 42, 530-57.

Kim, S., O'Neill, J. W., & Cho, H. M. (2010). When does an employee not help coworkers? The effect of leader–member exchange on employee envy and organizational citizenship behavior. International *Journal of Hospitality Management,* 29(3), 530-537.

Leach, C. W., Spears, R., Branscombe, N. R., &Doosje, B. (2003). Malicious pleasure: schadenfreude at the suffering of another group. *Journal of Personality and Social Psychology*, 84(5), 932.

Lee, B. (1994). Putting ethics to work in public relations. *Executive Speeches*, 9(1), 62.

Li, M. (2012).Rationalizing the Pleasure in Another Group's Suffering: From Schadenfreude to Dehumanization.

Martínez-Corts, I., Boz, M., Medina, F., Benítez, ,., &Munduate, L. (2011). Coping with Interpersonal Conflict at Work in Small Business:The Moderating Role of Supervisor and Co-Worker Support. *Revista de PsicologíadelTrabajo y de lasOrganizaciones*, 27, 117-129.

Miller, M. J., Woehr, D. J., & Hudspeth, N. (2002). The meaning and measurement of work ethic: Construction and initial validation of a multidimensional inventory. *Journal of Vocational Behavior*, 60(3), 451-489.

Muchinsky, P. M. (2000). Emotions in the workplace: The neglect of organizational behavior. *Journal of Organizational Behavior*, 21(7), 801-805.

Nickerson, J. A., & Zenger, T. R. (2008).Envy, comparison costs, and the economic theory of the firm. *Strategic Management Journal*, 29(13), 1429-1449

Nietzsche, F. (1967). On the genealogy of morals (Translated by W. Kaufmann & R.J. Hollingdale, originally published 1887). New York: Random House.

Panksepp, J. (1998). Affective neuroscience: The foundations of human and animal emotions. Oxford university press.

Parrott, W. G., & Smith, R. H. (1993).Distinguishing the experiences of envy and jealousy. *Journal of Personality and Social Psychology*, 64(6), 906.

Powell, C. A., & Smith, R. H. (2013). Schadenfreude Caused by the Exposure of Hypocrisy in Others. *Self and Identity*, 12(4), 413-431.

Prone, M. (2000). Interpersonal Conflict at Work and Psychological Outcomes:Testing a Model Among Young Workers. *Journal of Occupational Health Psychology*, 5(2), 246-255.

Rafaeli, A., & Sutton, R. I. (1989).The expression of emotion in organizational life. *Research in*

Organizational Behavior, 11(1), 1-42.

Rawls, J.: 1971, A Theory of Justice, Harvard University Press, Cambridge (Mass.).

Scott, W. (2007).The Inevitability of Conflict. *Security ABI/INFORM Global*, 44(8), 32.

Settle, A. (2010). Federal Budget: Health Sector. Post Budget Orientation Series for Honorable Parliamentarians.

Simmel, G. (2010). Conflict and the web of group affiliations.Simon and Schuster.

Smith, R. H., Parrott, W. G., Ozer, D., & Moniz, A. (1994). Subjective injustice and inferiority as predictors of hostile and depressive feelings in envy. *Personality and Social Psychology Bulletin*, 20(6), 705-711.

Smith, R.H., Turner, T.J., Garonzik, R., Leach, C.W., Urch, V., & Weston, C. (1996).Envy and schadenfreude. *Personality and Social Psychology Bulletin*, 22, 158-168.

Spector, P. E., &Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3(4), 356.

Staw, B. M., Sutton, R. I., &Pelled, L. H. (1994). Employee positive emotion and favorable outcomes at the workplace. *Organization Science*, 5(1), 51-71.

Takahashi, H., Kato, M., Matsuura, M., Mobbs, D., Suhara, T., & Okubo, Y. (2009). When your gain is my pain and your pain is my gain: neural correlates of envy and schadenfreude. *Science*, 323(5916), 937-939.

Van Dijk, W. W., Ouwerkerk, J. W., Goslinga, S., &Nieweg, M. (2005).Deservingness and Schadenfreude. Cognition and Emotion.

Van Dijk, W. W., Ouwerkerk, J. W., Goslinga, S., Nieweg, M., &Gallucci, M. (2006). When people fall from grace: Reconsidering the role of envy in schadenfreude. *Emotion*, 6(1), 156.

Vecchio, R. (2005). Explorations in employee envy: Feeling envious and feeling envied. *Cognition & Emotion*, 19(1), 69-81

Veroff, J., Douvan, E., &Kulka, R. A. (1981). The inner American: A self-portrait from 1957 to 1976. New York: Basic Books.

Virovere, A., Kooskora, M., &Valler, M. (2002).Conflict as a tool for measuring ethics at workplace. *Journal of Business Ethics*, 39(1/2), 75.

Weisel-Barth, J. (2008). Analyst envy in working with an artist: Four scenes. *Psychoanalytic Dialogues*, 18(6), 735-757.

Wharton, A. S., & Erickson, R. I. (1993). Managing emotions on the job and at home: Understanding the consequences of multiple emotional roles. *Academy of Management Review*, 18(3), 457-486.

EXAMINING THE ROLE OF SUPPORT FOR CREATIVITY IN DETERMINING CREATIVITY; MEDIATING ROLE OF EPISTEMIC CURIOSITY AND MODERATING ROLE OF TRUST IN LEADERSHIP

SARAH ZAFAR

Capital University of Science and Technology, Islamabad, Pakistan

ABSTRACT

The current study examined the role of support for creativity in determining creativity with the mediating role of epistemic curiosity and moderating role of trust in leadership. Data were collected from 321 employees working in telecom sector of Pakistan situated in Rawalpindi, Islamabad, Sialkot and Lahore. Regression analysis suggested that support for creativity is positively associated with creativity and epistemic curiosity, whereas, there is a positive relationship between epistemic curiosity and creativity. Epistemic curiosity further mediates the relationship between support for creativity and creativity of employees, while trust in leadership moderates the relationship between Support for creativity and creativity of employees. Results are discussed in the light of existing environment in the private sector organizations of Pakistan. The paper concludes by discussing study limitations and future research directions.

INTRODUCTION

Globalization has its virtues in making business for organizations easier than ever, however, there is also a second side to that coin. In the current era of globalization and the access of information, an organization's success is dependent upon their creative endeavors. Moreover, it also provides a competitive advantage to the organization in this highly competitive market (Imante, 2013). Due to the complex and ever changing environment, managers and leaders can't just rest on their laurels as there can be another organization that creates something new (Haserot, 2011). This has resulted in creativity being seen as a crucial core competence for these organizations. Consequently, creativity is perceived as an organizational resource that should be encouraged (Kent, 2007).

Creativity is the production of new and novel idea, which is original and practical. There is a constant search for employees who take an interest in creative ideas that are a stepping stone for innovative and better products (Simmons, 2012). For the organizations the competitive advantage is the thing that can make or break the organization's bottom line. Previously, competition meant making products better in quality and low in cost. However, that is not enough for the present market. Now new and efficient strategies need to be implemented to get ahead in the market. Therefore, organizations must be willing to embrace change in order to create a competitive advantage for them and to maintain it as

well (Amabile, 1985). Consequently, it is suggested that creative ideas are the product of intrinsic motivation rather than extrinsic (Amabile, 1996). Furthermore, it is stated that many different elements affect a person's creativity, which include personality, leadership, social environment, and working environment.

Support for creativity refers to the extent to which supervisors and coworkers encourage employees to develop creative ideas. Support for creativity from supervisors and coworkers encourage employees and assist them so that they might be fully motivated not only to find solutions to problems (Tierney & Farmer, 2004) but also help employees to think out of the box for more efficient strategies (Scott, 1994). Supporting creativity in the organization also shows that their employees' creative ideas and activities are appreciated and valued by the organization (Ford, 1996). Previous studies have also shown that support for creativity is positively associated with employee's creativity (Shalley, 2004). An organization's culture also supports or impedes the employees' creativity.

Very limited literature is available where epistemic curiosity has been tested as mediator between support for creativity and creativity of employee. Epistemic curiosity is the outcome of support for creativity and antecedent of creativity of employee. And trust in leadership has not been tested as moderator before in this context. Moreover, there has been a gap in the studies conducted in this domain which pertains to the fact that this model

has not been tested in the Pakistani culture yet.

The thirst to attain new skills and knowledge and to incite interest cognitively or to eradicate deprivation of information is known as epistemic curiosity (Litman, 2008). The definition also states that the perception of lack of knowledge gives rise to curiosity (Loewenstein, 1994). Curiosity has directed many studies (Berlyne, 1954) to research the science behind it (Berlyne, 1960). It has been observed that creative solutions (Litman, 2008) are more likely to be explored by the people who have the traits of epistemic curiosity in abundance (Mussel, 2013).

Trust has been defined as the expectation that the other person fulfills their commitment to the actions promised and the belief that they will follow through with having no control over their actions as well (Mayer, Davis, & Schoorman, 1995). Trust in leadership, in other words, is a form of relational trust that derives from participation (Aryee, 2002) of both leader and the subordinate in the Leader-Follower relationship (Wiggins, 1997). The trust in leadership motivates employees to be more confident in their leader's capabilities. Hence, trust is the tool that assists in effective management by the leader (McCauley, 1992). It is implied that leader's creativity also enhances employee's trust in their leadership (Bass, 1993). Another aspect of the definition of trust is that it is as psychological as it is intentional. Support from one's organization can also influence them to reciprocate with trust in their leadership (Kramer, 1999).

The organizations across the world are recognizing the need for supporting creativity to encourage their employees to be innovative. However, Pakistan's culture and organizational conditions are completely distinctive as compared to developed countries. The telecom sector in Pakistan is one of the fastest growing industries. Even with all the support and research relating to creativity in workplace, creativity is still in the initial stages of acceptance (Amabile, Barsade, G, Mueller, S, & Staw, 2005). Moreover, the organizational structure in Pakistan is still in the process of transitioning from centralized to a flatter hierarchal pyramid. This centralization of power discourages employees' involvement in the activities as well as their creative inputs. Consequently, in Pakistan, creativity at workplace has not yet been completely exercised due to less employee empowerment. This results in lack of confidence among employees to present their creative ideas to their superiors.

Existing literature on support for creativity and creativity of employees has already been established, but the mediation of epistemic curiosity and moderation of trust in leadership has not been examined before. Moreover, this study has not been tested before in the culture of Pakistan. This study is piloted to test the effect of support for creativity on creative employees and how

much trust do they put in their supervisors since it's a collectivistic society and also to examine the level of supervisor's support to their subordinates on being creative.

The idea behind this study is that the employees perceive that the supervisor's individual feedback is representative of the organization as a whole (Eisenberger, 1990). Organizational support theory (OST) suggests that the extent of support provided to the employees leads them to form a perception about the organization's attitude towards them. This perception influences the employees' commitment and approach to the organization as a whole (Eisenberger, 1990). The theory provides the base for creativity and support for creativity, i.e. how supportive is organization of employees creative endeavors. It builds the employee-employer relationship and it also provides the foundation for trust in leadership and epistemic curiosity

LITERATURE REVIEW

Support for creativity and Employee's creativity

In an organization, it is required by employees to think creatively for producing new and better products (Moorman, 1997). Previous research has proven a significant relationship between supervisory support and creativity (Amabile & Gryskiewicz, 1989). The ability to create innovative products (Amabile, 1988) is related to the degree of an employee's creativity (Staw, 1990). This shows the extent to which creative employees are able to perform efficiently (Woodman, 1993), as creative routine helps organizations to respond swiftly (March, 1958) to market demands (Kanter, 1988). Supervisors can support subordinates by providing valuable feedback (Van de Ven, 1986) about their tasks to achieve productivity (Vissers, 2002).

Supervisor's support can help employees to cope (Lubart, 2001) and act proactively to solve these problems creatively (Zenasni, 2008). Employees are motivated to try different approaches to perform their tasks creatively (Hackman, 2002). If employees perceive their jobs are meaningful and important on the basis of useful feedback from supervisors, they will increase creative activities (Yi, 2013). Employees perform their tasks better (Nielsen, 2008) when they exert more effort for the better understanding of a problem by approaching it through various perspectives (Gilson, 2004). Creative outcomes are highly probable when employees receive encouragement from their leaders and they know that they are expected to perform creatively (Amabile, Conti, Coon, Lazenby, & & Herron, 1996). Therefore, hypothesis one has been developed based on the aforementioned argument.

Hypothesis 1. There is a positive relationship between support for creativity and employees' creativity.

Support for creativity and Epistemic curiosity

The definition of epistemic curiosity states that "it is the aspiration to search, gain and make use of new knowledge" (Berlyne, 1954). To stimulate our cognitive activities (Mussel, 2010) and to reduce scarcity of information (Tuten, 2001), epistemic curiosity is a relevant tool for that (Litman, 2008).

It is suggested that to acquire new expertise (Arnone, 1994), the person has to have epistemic curiosity as a major component of his/her personality (Berlyne, 1954). Additionally, it is also stated as an individual's personal trait (Litman & Spielberger, 2003). Literature suggests that the link between epistemic curiosity and need for cognition has been established (Mussel, 2010). Some other researches (Olson, 1984) also had their findings aligned with it. The need for cognition is defined as person's ability to be engaged in the thought process (Cacioppo, 1982) and to enjoy it as well; whereas, epistemic curiosity is a need for attaining novel experience (Berlyne, 1960). Curiosity facilitates and promotes learning (Kashdan, Rose, & Fincham, 2004), which in turn enhances their personal growth.

If creative process is not totally executed (e.g., a problem is misunderstood, not all information is fetched and examined (Redmond, 1993), or too few alternative ideas are generated), the quality of the creative output will suffer (Zhang, 2010). This proposition is in line with leadership–creativity model (Tierney, 2008), which declares that leaders' influence on creativity occurs via the "evolving system" of follower thoughts, drives, and activities in order to predict employee creativity, which in turn helps employees' growth when their creativity is encouraged by their employer (Zhang, 2010).

The rapport of support for creativity and epistemic curiosity has been identified in the past literature. If an employee feels motivated and knows that he has support of his supervisors, he will explore more and be more curious to as how things work or for coming up with a better and improved product.

Hypothesis 2. There is a positive relationship between support for creativity and epistemic curiosity.

Epistemic curiosity and Creativity

There is a good reason to an individual's curiosity and creativity, and this can be clearly seen when a person is using an electronic computer, flying in an airplane or listening to a symphony; the results of an individual's creativity are indeed impressive at every level, be it organizational, mechanical or artistic level and seem to have a satisfactory explanation (Leuba, 1958). If we truly want to understand curiosity and creativity, there is only one simple thing that is to be understood i.e. there is existence of need and to fill that up, people find different ways as to how this can be achieved and hence come up with creative ideas.

In an organization, when an employee finds himself stuck in a problem, or if he/she has to come up with a cost cutting idea for maximum profits, he/she becomes curious about the problem and starts thinking of all the possible ways to find the best possible, useful solution of the problem. This goal can be achieved through reasonable amount of supervisory support.

Hypothesis 3. There is a positive relationship between epistemic curiosity and creativity of employee.

Epistemic curiosity as a mediator

Litman & Jimerson, (2004) developed interest-deprivation (I/D) theory of curiosity. They presented the idea that there are two conditions of curiosity, one: person is interested in finding out the answer and two: person has informational deprivation which is causing the curiosity. Like other human desires, curiosity is linked with approach behavior and experiences reward (Berlyne, 1960). Curiosity is considered a positive trait, as when one's curiosity is stimulated, it is intrinsically rewarding and very pleasurable (Day, 1971). However, learning new information may feel satisfactory and rewarding (Peterson C. &., 2004), because it scatters undesirable state of uncertainty (Kashdan, Rose, & Fincham, 2004) rather than arousing one's interest (Berlyne, 1954).

In an organization, where there's a supportive climate for employees to participate and come up with new ideas, epistemic curiosity plays an important role and acts as a catalyst between support for creativity from supervisors and creativity of subordinates. Past literature has shown many positive links between support for creativity and creativity of employee.

Hypothesis 4. Epistemic Curiosity mediates the relationship between support for creativity and creativity of employees.

Trust in leadership as a moderator

Trust is considered to be mental relation with another person. Past literature defines trust as an individual's

state of mind, beliefs (McKnight, 1996) and readiness to rely on another individual (McAllister, 1995). Similarly, when an individual trust his supervisor, his confidence in his supervisor is reflected (Chou, 2013). The recent studies have recommended that trust between the leader and their followers is automatically developed if the leadership style is effective which, as a result, enhances overall creativity in employees.

It has been recognized that despite being vulnerable to harm, the trusted can trust the other party due to a expectation that they will not abuse this relation (Rousseau, 1998). Hence, there are two key concepts in trust: vulnerability and positive expectations. Different people have different approaches towards trust, some consider it as cognitive and psychological state while other consider it as choice behavior (Kramer, 1999). Social exchange theory (Blau, 1964) claims that trust emerges with the constant and frequent exchange of ideas and talks; and further benefits the involved individuals. Once the successful exchange is made, it then leads to trust because it shows mutual support and investment in relationship.

The research that was conducted for this study recommended that with a high level of creativity in the subordinate with the addition of trust between them can strengthen the relationship between support for creativity and employees' creativity. The trust mentioned between the employer and the employee is cognition-based, which refers to the fact that rational reasons are being considered (Mayer, Davis, & Schoorman, 1995), which include reliability and responsibility, competence and integrity to establish this relationship (McAllister, 1995) integrity, competence; (Cook, 1980). Since this trust is created through effective communication amongst the parties, the employees consider their supervisors more competent and dependable (McAllister, 1995). Hence, employees who trust their supervisors are predicted to have a positive reaction when they are strongly supported by their leaders (Parayitam, 2007), because they sense that the better performance is expected from them. The research shows that there are other factors that interact with trust, which in turn influence the reaction between the parties (Goris, 2003) an example of which is cognitive conflict (Ranaweera, 2003).

Being vulnerable is one of the key factors of trust (Butler, 1991) along with the positive perception (Mayer & Davis, 1999) that there will be a protection of their trust (Rousseau, 1998). And also others intentions (Mayer, Davis, & Schoorman, 1995), character (Knorr, 1962), reliability and integrity's assessment will be considered (Dirks, 2000).To accept being vulnerable (Butler, 1991), there has to be a well established relationship where both parties reciprocate goodwill (Baier, 1985).

According to functional approach of leadership

(Govier, 1994), the leader has responsibility to manage the needs of his subordinates (Stack, 1988) especially when they are not being handled satisfactorily (Hackman, Walton, & Goodman, 1986). Antecedents of trust are ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995). Outcomes of trust are: behavioral (Schoorman, 2007) and performance outcomes, job attitudes (Gill, 2005) and intentions, and correlates (Kozlowski, Gully, Nason, & Smith, 1999).

Hypothesis 5. Trust in leadership positively moderates the relationship between support for creativity and employees' creativity.

THEORETICAL FRAMEWORK

FIGURE 1
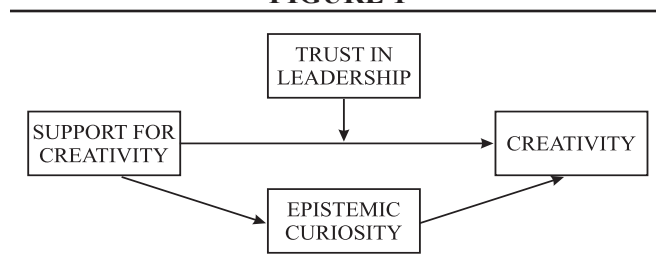
METHODOLOGY

Sampling

The current study is a cross sectional study of a descriptive nature, which used the survey method to collect the data. Convenient sampling technique was used in order to draw the sample. 350 questionnaires were distributed in different cities of Punjab, 326 questionnaires were received, out of which 321 were usable. Thus, the response rate was 93 %. The data for this study were collected over the span of five weeks. The organizations from where the data were collected consisted of the telecom sector and advertising agencies of Pakistan (Ufone, Mobilink, Telenor, Warid, SNL, Wi-Tribe and AdcomPvt Ltd).

The study used age, tenure, gender and qualification as the control variables. The data collected from the telecom sector shows that 9.3% of the employees are less than 25years old; whereas, 64.2% of the data consists of 26-33years old employees. Additionally, 26.2% employees lie in the category of 34-41years of age. Thus the 41 and above category consists of a small number of employees. The employees with 0-5years of experience cover 25% of sample. Whereas the 6-10years of experience category consists of 75.1% of the sample the 11-15 years experience consisted of 21.8% of the sample and the employees with 15 or more years

of experience amounted to a very small percentage of sample. The gender demographics were such that the male respondents were 82.6% of the sample, whereas the rest i.e. 16.5% were female. In the education category, the percentage of respondents that had completed their masters was 32.4%; while the majority of the sample i.e. 64.2% respondents selected bachelors and 6% of the respondents selected intermediate.

Instrumentation

5-point Likert scale was used in the questionnaire where 1 represented strongly disagree and 5 represented strongly agree.

Support for creativity

Support for Creativity was measured by 2 items scale developed by (Madjar, 2002). The sample items include "My [supervisor] support experimentation with new methods and ways of doing things", "My coworkers discuss my work-related ideas with me in order to improve them."

Creativity

Creativity was measured by 13 items scale developed by (Zhou, 2001). The sample items included "I suggest new ways to achieve goals or objectives", "I suggest new ways to increase quality", "I am not afraid to take risks."

Epistemic Curiosity

Epistemic curiosity was measured by 10 items scale developed by (Mussel, 2013). The sample items include "I am interested in how my contribution impacts the company", "I enjoy developing new strategies, regarding practical problems", "I'm also interested in the underlying theory, when confronted with complex problems", "I like to look for new solutions, I enjoy pondering and thinking".

Trust in leadership

Trust in leadership was measured by 6 items scale developed by (Podsakoff, 1990). The sample items include "I feel quite confident that my leader will always treat me fairly", "I feel a strong loyalty to my leader", "I have a strong sense of loyalty toward my leader."

RESULTS

The data were analyzed using correlation and regression analyses, in order to test the hypotheses. Table (1) shows the results of correlation analysis along with the mean and standard deviation of each variable.

TABLE 1
Correlation Analysis, Mean, Standard Deviation and Reliability

	Variables	Mean	SD	1	2	3	4
1	Support for creativity	3.32	0.87	1			
2	Epistemic curiosity	3.79	0.45	.362**	1		
3	Creativity	3.75	0.43	.288**	.512**	1	
4	Trust	3.55	0.57	.357**	.471**	.549**	1

*n=321, Control variables were, Gender, Age, Experience and Qualification, * P < .05; ** P <.01 (Med= epistemic curiosity, DV= employee creativity, Mod= trust in leadership).*

Table 2
Moderated-Mediated Regression Analysis

Variables	β	SE	T	P
Path a: IV to DV	.18	.02	6.92	.00
Path b: M to DV	.84	.02	3.62	.00
Path c: IV to DV (with mediator)	-.15	.07	-2.2	.02
Int_1 (SC*TL)	.03	.01	1.61	.10
	LL 95% CI		UL 95% CI	
Bootstrap Results for indirect effect	.12		.20	

The mean value of support for creativity is 3.32 and standard deviation is 0.87. The mean value of epistemic curiosity is 3.79 and standard deviation is 0.45. The mean value of creativity is 3.75 and standard deviation is 043. Similarly, the mean of trust in leadership is 3.55 and standard deviation is 0.57. The smaller value indicates the positive impact they have, whereas greater values show the negative effect among the variables. Table (1) further indicates that Support for creativity is positively and significantly correlated to employee creativity (r = -.288** p < 0.05) and Epistemic Curiosity (R= .362** P < 0.05). However, Epistemic curiosity is positively and significantly correlated with employee creativity (r = .512** P < 0.05) Support for creativity is positively and significantly correlated with trust in leadership as well (r = .357** p < 0.05), while Epistemic curiosity is positively and significantly associated with trust in leadership (r = .471** P < 0.05), along with the significant positive correlation between Employee Creativity and trust in leadership (r = .549** p < 0.05).

Regression Analysis

In order to test the hypotheses, regression analysis, using Preacher and Hayes method (2008). The table (2) shows the results of the moderated-mediated regression analysis.

Table (2) shows the results of regression analysis. The findings suggest that support for creativity is positively and significantly related to the employee creativity with p=0.00 and t value at 6.92, leading to the acceptance of hypothesis one. Similarly, as per the results, epistemic curiosity partially mediates the relationship between support for creativity and creativity at p=0.02, as indicated by path c; thus leading to the acceptance of hypotheses two, three and four.

Results of the moderation as given in table (2) indicate that trust in leadership does not positively moderate the relationship between support for creativity and creativity, with p=.10 and t value at 1.61. The hypothesis five suggested that trust in leadership would further strengthen this positive relationship between support for creativity and creativity, but as regression results, the moderation hypothesis has been rejected.

DISCUSSION AND CONCLUSION

The results of the regression analysis in the previous section indicated that all the proposed hypotheses of the study have been substantiated, meeting the study objective. Findings suggest that support for creativity

among employees is positively and significantly associated with the creativity of the employee. When creativity of employees is being supported by his supervisor, it enhances his overall creativity because support itself is a big motivator. The results are in line with the existing literature; when employees receive support from their supervisors and co-workers', they tend to perform better and come up with creative solutions to the existing problem.

Furthermore, the results indicated that there is positive relationship between epistemic curiosity and employee's creativity. Curiosity opens doors of unlimited ideas, which lead to creative problem solving. Existing literature supports the result establishing that when employees are curious, they explore all the options available for the current problem and decide the best possible solution. Similarly, epistemic curiosity partially mediates the relationship between support for creativity and creativity, as supported by the literature; whereas, the rejection of moderation hypothesis can be justified through the contextual element. Subordinate's creativity and high level of cognition-based trust in their supervisor strengthens the relationship between support for creativity and creativity of employee. But in Pakistan's culture, where there is high power distance, uncertainty avoidance and centralized organizational environment, turns out that subordinates don't feel comfortable trusting their supervisors, which rejects our proposed hypothesis.

The current study was conducted in the telecom sector of Pakistan to confirm whether there is a relationship between support for creativity and employees' creativity. IT firms and advertising agencies of Rawalpindi and Islamabad were tested with the questionnaire to confirm the validity of this relationship in the telecom sector where the culture comprises of high power distance and the lack of trust in leadership. Moreover, the selected mediator which is epistemic curiosity confirmed its mechanism in this relationship, in the context of telecom sector of Pakistan. Support for creativity and employees' creativity was also substantiated. The results confirmed the positive correlation between epistemic curiosity and creativity of the employees. Also, trust in leadership was used as the moderator to check the relationship between support for creativity and creativity of employees. Trust in leadership did not moderate the relationship, as proposed, leading to give way to the contextual factor in the study. People find it hard to trust, and hence mostly replied negatively when they were asked about trusting their leaders. Thus, the application of the model that was created for this study is relevant to this research context. One of the main findings of the current study is that trust in leadership is an integral component of the leader-follower relationship.

RECOMMENDATIONS

For a developing country like Pakistan, there needs to be a growth in industry and organizations. For this purpose, it is vital for supervisors to focus on empowering their employees through supporting their creativity and epistemic curiosity. The telecom sector is facing the toughest competition in the industry as well as a lot of problems due to the politics, psychological contract breaches and low self-esteem. Thus, it is recommended that the telecom organizations instigate in their employees to support their subordinates, when appropriate. This will help in empowering them and instigating a sense of belonging and loyalty to the organization and their supervisor, leading the organization towards an era of growth and success.

LIMITATIONS

The study was designed and executed with the determination to avoid any flaws however some were still found. Those limitations are mentioned below. First of all, the sample size was comparatively smaller due to the time constraints. Secondly, as the organizations from which the data were selected are located in the twin cities and two other in Punjab, Pakistan. It might not be the accurate representative of the whole population, whereas, employees working in different cities exhibit different behavior due to different subcultures as well. Third limitation was present due to the data being collected from the creative departments of only telecom companies. Therefore, this study cannot be generalized to other industry's creative departments. And another limitation was the scales used in the present study were self-reported, in measuring the attitudinal aspects of respondents the self-reported data are mostly recorded biased.

FUTURE DIRECTIONS

The impact of different cultures can be explored in future studies to provide a cross-cultural comparison. Countries like United States and China can be used to compare the findings from this study. Current study investigated the mediating role of epistemic curiosity. In the future this variable can be used as an independent or dependent variable along with rest of the same variables. Researchers can also add more variables as outcome of breach of psychological contract and develop a comprehensive model to know how breach of psychological contract effects on its outcomes.

REFERENCES

Amabile, T. M. (1985). Motivation and creativity: Effects of motivational orientation on creative writers. *Journal of Personality and Social Psychology*, 48(2), 393-399.

Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, 10(1), 123-167.

Amabile, T. M. (1996). Creativity in context: Update to" the social psychology of creativity.". Westview press.

Amabile, T. M., & Gryskiewicz, N. D. (1989). The creative environment scales: Work environment inventory. *Creativity Research Journal*, 2(4), 231-253.

Amabile, T. M., Barsade, S. G., Mueller, J. S., & Staw, B. M. (2005). Affect and creativity at work. Administrative science quarterly, 50(3), 367-403.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154-1184.

Arnone, M. P., Grabowski, B. L., & Rynd, C. P. (1994). Curiosity as a personality variable influencing learning in a learner controlled lesson with and without advisement. *Educational Technology Research and Development*, 42(1), 5-20.

Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23(3), 267-285.

Baier, A. (1985). Postures of the mind: Essays on mind and morals (Vol. 11). Minneapolis: University of Minnesota Press.

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32.

Berlyne, D. E. (1954). A theory of human curiosity. *British Journal of Psychology. General Section*, 45(3), 180-191.

Berlyne, D. E. (1960). Conflict, arousal, and curiosity.

Blau, P. M. (1964). Exchange and power in social life. Transaction Publishers.

Butler, J. K. (1991). Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. *Journal of Management*, 17(3), 643-663.

Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin*, 119(2), 197-253.

Chou, H. W., Lin, Y. H., Chang, H. H., & Chuang, W. W. (2013). Transformational Leadership and Team Performance. *SAGE Open*, 3(3), 1-10.

Cook, J., & Wall, T. (1980). New work attitude measures

of trust, organizational commitment and personal need non-fulfilment. *Journal of Occupational Psychology*, 53(1), 39-52.

Day, H. I. (1971). Intrinsic motivation: A new direction in education.

Dirks, K. T. (2000). Trust in leadership and team performance: evidence from NCAA basketball. *Journal of Applied Psychology*, 85(6), 1004-1012.

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75(1), 51-57.

Ford, C. M. (1996). A theory of individual creative action in multiple social domains. *Academy of Management Review*, 21(4), 1112-1142.

Gill, H., Boies, K., Finegan, J. E., & McNally, J. (2005). Antecedents of trust: Establishing a boundary condition for the relation between propensity to trust and intention to trust. *Journal of Business and Psychology*, 19(3), 287-302.

Goris, J. R., Vaught, B. C., & Pettit Jr, J. D. (2003). Effects of trust in superiors and influence of superiors on the association between individual-job congruence and job performance/satisfaction. *Journal of Business and Psychology*, 17(3), 327-343.

Hackman, J. R. (2002). Leading teams: Setting the stage for great performances. Harvard Business Press.

Hackman, J. R., Walton, R. E., & Goodman, P. S. (1986). Leading groups in organizations. Designing effective work groups.

Kanter, R. M. (1988). Three tiers for innovation research. *Communication Research*, 15(5), 509-523.

Kashdan, T. B., Rose, P., & Fincham, F. D. (2004). Curiosity and exploration: Facilitating positive subjective experiences and personal growth opportunities. *Journal of Personality Assessment*, 82(3), 291-305.

Kozlowski, S. W., Gully, S. M., Nason, E. R., & Smith, E. M. (1999). Developing adaptive teams: A theory of compilation and performance across levels and time. Pulakos (Eds.), The changing nature of performance: Implications for staffing, motivation, and development, 240-292.

Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50(1), 569-598.

Leuba, C. (1958). A new look at curiosity and creativity. The Journal of Higher Education, 29(3), 132-140.

Litman, J. A. (2008). Interest and deprivation factors of epistemic curiosity. *Personality and Individual Differences*, 44(7), 1585-1595.

Litman, J. A., & Spielberger, C. D. (2003). Measuring epistemic curiosity and its diversive and specific components. *Journal of Personality Assessment*, 80(1), 75-86.

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychological Bulletin*, 116(1), 75-98.

Lubart, T. I. (2001). Models of the creative process: Past, present and future. *Creativity Research Journal*, 13(3-4), 295-308.

Madjar, N., Oldham, G. R., & Pratt, M. G. (2002). There's no place like home? The contributions of work and nonwork creativity support to employees' creative performance. *Academy of Management Journal*, 45(4), 757-767.

March, J. G., & Simon, H. A. (1958). Organizations.

Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, 84(1), 123-136.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734.

McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), 24-59.

McCauley, D. P., & Kuhnert, K. W. (1992). A theoretical review and empirical investigatiomn of employee trust in management. *Public Administration Quarterly*, 16(2), 265-284.

McKnight, D. H., & Chervany, N. L. (1996). The meanings of trust.

Moorman, C., & Miner, A. S. (1997). The impact of organizational memory on new product performance and creativity. *Journal of Marketing Research*, 34(1), 91-106.

Mussel, P. (2010). Epistemic curiosity and related constructs: Lacking evidence of discriminant validity. *Personality and Individual Differences*, 49(5), 506-510.

Olson, K., Camp, C., & Fuller, D. (1984). Curiosity and need for cognition. *Psychological Reports*, 54(1), 71-74.

Parayitam, S., & Dooley, R. S. (2007). The relationship between conflict and decision outcomes: Moderating effects of cognitive-and affect-based trust in strategic decision-making teams. *International Journal of Conflict Management*, 18(1), 42-73.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly,* 1(2), 107-142.

Ranaweera, C., & Prabhu, J. (2003). The influence

of satisfaction, trust and switching barriers on customer retention in a continuous purchasing setting. *International Journal of Service Industry Management*, 14(4), 374-395.

Redmond, M. R., Mumford, M. D., & Teach, R. (1993). Putting creativity to work: Effects of leader behavior on subordinate creativity. *Organizational Behavior and Human Decision Processes*, 55(1), 120-151.

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393-404.

Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, 15(1), 33-53.

Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: where should we go from here?. *Journal of Management*, 30(6), 933-958.

Simmons, A. L., & Sower, V. E. (2012). Leadership sagacity and its relationship with individual creative performance and innovation. *European Journal of Innovation Management,* 15(3), 298-309.

Staw, B. M. (1990). An evolutionary approach to creativity and innovation.

Tierney, P., & Farmer, S. M. (2004). The Pygmalion process and employee creativity. *Journal of Management*, 30(3), 413-432.

Tuten, T. L., & Bosnjak, M. (2001). Understanding differences in web usage: The role of need for cognition and the five factor model of personality. *Social Behavior and Personality: An International Journal,* 29(4), 391-398.

Van de Ven, A. H. (1986). Central problems in the management of innovation. *Management Science*, 32(5), 590-607.

Vissers, G., & Dankbaar, B. (2002). Creativity in multidisciplinary new product development teams. *Creativity and Innovation Management,* 11(1), 31-42.

Wiggins, J. S., Trapnell, P. D., Hogan, R., Johnson, J., & Briggs, S. (1997). Handbook of personality psychology.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293-321.

Yi, X., Hu, W., Plucker, J. A., & McWilliams, J. (2013). Is there a developmental slump in creativity in China? The relationship between organizational climate and creativity development in Chinese adolescents. *The Journal of Creative Behavior*, 47(1), 22-40.

Zenasni, F., Besançon, M., & Lubart, T. (2008). Creativity and tolerance of ambiguity: An empirical study. *The Journal of Creative Behavior*, 42(1), 61-73.

Zhang, X., & Bartol, K. M. (2010). The influence of creative process engagement on employee creative performance and overall job performance: a curvilinear assessment. *Journal of Applied Psychology*, 95(5), 862-873.

DEFAULT RISK PREMIUM AND EQUITY RETURN OF NON-FINANCIAL COMPANIES OF PAKISTAN

SADDAF ADALAT

Capital University of Science & Technology, Islamabad, Pakistan

ABSTRACT

The current study was aimed to examine the relationship between default risk premium and equity return by using sample of hundred companies from period between 2000 and 2015, listed at Karachi Stock Exchange. The firms are chosen on the basis of market capitalization. To examine the role of market premium, size premium, value premium and default premium in estimating the equity returns, the two pass regression was used. It was found that CAPM is valid model as market premium is priced but explanatory power is low. Similarly, the findings suggested that the CAPM model is not better than Fama and French model. Default risk premium is also significantly influencing equity returns. The study findings provided evidence about premium of default risk anomaly in Pakistani markets during the sample period. In default sorted portfolio the low default stocks earn lower than the high default stocks. This study has implications for decision markers in estimating cost of equity as well as weighted average cost of capital as it provides more information in comparison to CAPM. Moreover, information about premium of size, value and default anomaly may facilitate under developing investment strategies.

INTRODUCTION

Modern finance is based on different interconnected Asset Pricing Theories (e.g. Black, 1972; Sharpe, 1964) which include the capital asset pricing (CAPM) model (Cox, 1985; Rubinstein, 1976), Model of Merton (1973), as well as Theory of Arbitrage Pricing (APT) (Ross, 1976). In literature the Capital asset pricing (CAPM) model is a leading model. Whereas, in literature the multi factor asset pricing models is also discoursed.

Fifty years ago foundation of modern finance was laid down by Markowitz. His contributions are diversification, systematic risk and computation of portfolios risk and returns. Markowitz (1952, 1959) said that on the basis of mean variance theory investors selected their portfolios, which are risk averse. Tobin (1958) and Markowitz's (1952) worked on structure of portfolios. The work of Markowitz on portfolio altered the whole theory of finance in 1952. His work is further extended by Sharpe's paper on Capital Asset Pricing Model (CAPM) who added a concept of risk free security (RF) and provided method to measure systematic risk. The systematic risk refers to asset sensitivity to market specific factors. Therefore, higher the systematic risk demands, higher are the required rate of returns. On the basis of mean variance, Lintner (1965) and Sharpe (1964) found the Capital asset pricing (CAPM) model and explained it through efficient portfolio frontier.

The arbitrage pricing theory (APT) has been studied in several markets. Banz (1981) examined the linear relation between market risk and return of security in Capital Asset Pricing Model (CAPM) along with the stocks return and value of NYSE from 1926 and 1975. He introduced size effect that big firms have lower returns than smaller firms. Reinganum (1981) in the New York stock Exchange (NYSE) and American Stock Exchange (ASE) used APT to measure the impact of returns and prices of assets. Chen (1986) also studied Japanese Stock Market by using APT. Mirza and Shahid (2008) checked the applicability of Fama and French model's three factors, in Pakistan equity market and why should the Fama and French three factor model be used.

The CAPM introduction started discussion in literature regarding investor's demands rate of return on risky holding securities. The CAPM to multi factor models has developed from literature, which deals with the financial asset of pricing. Carhart (1977) and Fama and French (1993, 1992, 1996, and 1998) used the single factor of CAPM model and expanded it to develop multi factor models with value (book to market), size, investment, momentum and profitability. The CAPM is tested with passage of time in different settings and it has been criticized by many researchers, as well.

Capital asset pricing model and CAPM by Lintner (1965) and Sharpe (1964) identified many anomalies. Benz's (1981) size anomalies indicated that small stocks

outperform companies as compared to big companies. Basu (1986) identified the P/E ratio and found that high P/E ratio companies have high returns than low P/E ratio companies. Rosenberg, Reid & Lanstein (1985) and Stattman (1980) identified value anomaly that firms with low (B/M) book to market value perform lower than firms with high (B/M) book to market value. Similarly, Amihud and Mendelson (1986) reported liquidity anomaly. Jegadeesh and Titman (1993) indicated that the stocks having low returns firms (the loser) earn lower than stock having high return in past (the winner).

The anomalies of CAPM developed the theoretical model proposed by Ross (1976), which is an arbitrage pricing theory (APT). The inspiration of arbitrage pricing theory came from the famous three factor model proposed by Fama and French (1993, 1996). The three factor model consists of value premium that explains B/M, size premium, which explains the size and market premium related anomalies. The model is well accepted. Carhart (1977) identified momentum anomaly to expand the Fama and French model, which indicates that the price momentum effect are related to CAPM anomalies.

Various markets across the world have examined the SMB and HML Fama and French factors but in Pakistan equity market, no detailed study of default risk exists. The Pakistan equity market is one of the rapid growing markets, getting investors' interest. The Fama and French (1998) indicated that value and size factors are country specific factors, rendering Pakistani equity market important to discover the factor priced.

In financial market the relationship between stock returns and default risk has a significant association with the reward risk trade-off. In order to bear the risk, the investors accept a positive risk premium, when systematic is default risk. Evidence from market inefficiency is taken that the default risk and realized stock returns have negative relationship. The SMB and HML, the factors of Fama and French (FF) have some information related to default; the equity returns are not completely explained by FF model. However, Elton et al.'s (2001) study used aggregate default spread to measure the default risk, which is in line with the Merton (1974) and Black and Scholes (1973), who used conditional claims methodology to measure default risk. The risk factors of Fama and French (1993) do not posit that the stocks with high default risk have low returns.

A study by Dichev (1998) indicated that the default risk and equity return have negative relationship. Financial distress is measured by using Ohlson's O score and Altman's Z score from year 1981 to 1995. Hillegeist, Keating, Cram, and Lundstedt (2004) suggested that Z score and O score calculating power are limited and supporting measure used is based on the Merton (1974) option pricing and Black and Scholes (1973) model;

therefore, MKMV is used to measure expected default frequency EDF. Vassalou and Xing (2004) measured the expected default frequency EDF and probability of default. Results indicated that small companies with high book to market and high probability of default can earn more return than small companies with low probability of default. They also found that the default risk is priced positively in returns of stock and the nature default risk is systematic.

Fama and French (1995) studied that default risk is measured by proxy of size and value (book to market) and equity returns is priced. Numerous researchers examined default risk measure and compared predictive power of cross section returns with book to market factors (Dichev, 1998; Vassalou & Xing, 2004; Griffin & Lemmon. 2002). These studies ensured that there are different measures of default risk for different firms. However, these measures are weak predictors of return premium as these indirectly measure the default risk.

The aim of study is to explore the Pakistani market and find out the equity returns and default risk relationship between them. Default is one of main attributions of securities in capital market. The financier demands the stocks, which have high default risk and can earn high return as compared to the stocks that have low default risk and earn low return. In recent years, default risk has been proven to have attracting significant of asset pricing models.

REVIEW OF LITERATURE

The current study explores the area of asset pricing, which is related to the developing literature. Griffin (2002) indicated that the default risk and returns of stock have negative relationship between them by building on the theoretic base. Garlappi et al. (2008), Fan and Sundaresan (2000) through their studies suggested that the default risk and returns of stocks have negative relationship, which is explained by absolute priority rule (APR); further concurred by Dichev (1998). Avramov et al. (2007) proposed that the high default risk stocks can earn negative returns; whereas, George and Hwang (2008) explained the anomaly of leverage and their results indicated that returns and leverage have negative relationship. Vassalou and Xing (2004) explained the return and distress risk stock and their results indicated that high returns can be earned by small companies.

Dichev (1998) posited that the returns of stocks and probability of default have an opposite relationship between them. By expanding the Altman (1968) Z-score and Ohlson (1980) O-score study, which were used to measure the probability of default. This is also established by Griffin (2002), whose results indicated that the companies with high default risk and low book

to market ratio can earn the lower returns and it leads to stock mispricing in the market. Likewise, Chava and Jarrow (2004), Shumway (2001), Campbell, Hilscher, and Szilagyi (2004) used the hazard model approach model to calculate the factors of corporate default risk.

Gertner, & Sharfstein (1994), as well as Opler and Titman (1994) in their respective studies found that the default risk is not symbolized as systematic risk and related to individual factors. Denis and Denis (1995) studied that the business cycle changes from companies to companies and the default risk is associated to the factor of macroeconomics. Fama and French (1996) stated that proxies of default risk are SMB and HML factors. Vassalou (2003) further stated that many of information of default risk comprise by the factors of SMB and HML, but these are unable to capture full default risk premium reported in the returns of equity. The factors SMB and HML appear to contain no information about the default risk but have other important information. Correspondingly, explanation of the risk based premium is also discussed by Li, Vassalou and Xing (2000).

Berndt, Duffie, Schranz and Ferguson (2005), Philippon and Almeida (2007) and White, Hull and Predescu (2004), in their respective studies stated that between the adjusted risk, there are considerable differences and physical probabilities of default. Various methods have been used in literature. On the basis of stock ranking, the probability of default is indirectly measured from historical data of default, and is completed by Campbell, Szilagyi and Hilscher (2008) and Dichev (1998). Inside structure of the q-theory, Liu, White & Zhang (2009) and Cochrane (1991) suggested that companies with low default probability can earn low returns. Likewise, the companies having high leverage can earn future returns of stocks low (Xing & Zhang, 2009; Korteweg, 2010). Establishment with Chance (1990), Cox & Black (1976) along with Merton (1974, 1977) model, Cooper and Mello (1991), Johnson and Stulz (1987), Singer and Ho (1982) indicated that the company's values fall down when debt is low in time and the debt maturity is occurred by default model. Further in recent times, Schwartz and Longstaff (1993) and White and Hull (1992) proposed the default modeling allowed by magnitude fixed for default time period is random and for the first time the pre-specified boundary of default reached to the value of firms.

Dempsey (2010) studied the context of Australian stock markets in order to investigate the value stock (book to market ratio) relationship for the construction of returns of stocks. For expanding the capital asset pricing model (CAPM) the Fama-French three factor model is developed, which is designed with two portfolios and used to capture the risk premium, which are size premium (small minus big) and value premium (book to market ratio). The size premium (small minus big) and value premium (book to market ratio) are the elements used for the proxies of risk. The stock returns are explained by the Fama and French three factor model and by investigating the nature of relationship between value stock (book to market) and returns of stock. The results indicate that the value stock book to market ratio and returns of stocks have positive relationship between them. Hsu, Saa-Requejo & Santa-Clara (2004) suggested that when the efficient capital market conveys, the value of firm falls down below the default risk. The classification of default makes the model more manageable.

The five factor model is further extension by Fama and French (1993) to measure effect of market, effect of size, value effect, term effect and default effect by using time series regression of bonds and stocks of listed companies on NYSE. The market effect, size effect and value effect are significant for stocks and term effect and default effect are significant for bonds. On the basis of result the three factor asset pricing model is proposed by Fama and French (1993) for stocks, which includes the effect of market, size effect and value effects. The capital asset pricing model (CAPM) has further extended to the three factor model. The effect of size measure that companies with high market capitalization can earn lower return than the companies with low market capitalization. The effect of value measure the companies with low book to market ratio can earn low returns than the companies with high book to market ratio.

Fama and French (1996) examined returns and value (book to market ratio) relationship between them. The expected returns of beta alone cannot be explained by Capital Asset Pricing Model (CAPM). The Lintner (1965) and Sharpe (1964) have two negative results for Capital Asset Pricing Model (CAPM) measured by Fama and French (1992) and their results indicated that the variation of beta market is unrelated to size, as beta is not sufficient to explain average return. Fama and French (2015) the Five Factor Model explains value effect, size effect, profitability and investment effect, as well as investment designs in returns of stock, which provide that these factors can better explained return in comparison of Fama and French (1993) to the three factor model. The small stocks can earn low returns that behave like the firms that invest in low profitability, which were not captured by the five factor model. The study examined the profitability and investment factors that are found non-significant in explaining the average returns.

Das, Freed, Geng & Kapadia (2002) examined the correlation between default risks for US non-financial firms. The study stated that if correlation between defaults increases, it will lead to increase in the level

of default risk and both can expect loss. The results state that the default probability is positively correlated and vary over time. The correlation varies across firms systematically, which is related to economy wide level of default risk. Allen and Powell (2007) used the KMV/ Merton structure methodology, which includes market asset values, to examine default probabilities (PD) of 58 banks in Australian market and made comparison internationally. They further modified the model for conditional probability of default and result, stated that the lenders to bank assess default probabilities and manage capital adequacy accordingly.

Vassalou and Xing (2004) calculated the default risk measure for the companies by using Merton's option pricing model (1974) and measured the impact of default risk on the returns of equity. The three factor model by Fama and French (FF) has some information of default risk, size (small minus big) and value (book to market) factors and the results indicated that big companies have low returns than smaller companies as the big companies default risk is low. The observation that the low returns are received by the companies having low default risk from the companies having high default risk is consistent with high risk and high return argument.

Bystrom, Worasinchai & Chongsithipol (2005) and Merton (1974) used default probability model to examine the firms listed in SET50 index at Stock Exchange of Thailand (SET) to examine the relation between default probability of firms with value (book to market ratio) and size (small minus big). Outcomes of study stated that risk of distress is systematic in nature and by higher returns it is compensated. Patel & Vlamis (2006) and Black and Scholes (1973) used Merton option pricing (1974) model/KMV approach and to estimate the distance to default and the probabilities of default for 112 companies listed at London Stock Exchange from 1980 to 2001.

Gharghori, Chan and Faff (2009) described the variation in cross section of returns of equity by employing the value (book to market) and size, since these factors are used for default risk proxy and results indicate that size and book to market are not default risk proxies and results state that the default risk and returns have negative relationship between them.

An Australian study by Gharghori, Chan and Faff (2007) in Australian market used the Fama and French (1993) model and used SMB and HML factors of Fama and French in order to explore the variation in returns of equity. Their study considered that default risk is measured by the proxy of two FF factors, i.e. SMB and HML. The main contribution of study is that the returns of equity are explained by factors of Fama and French factors, because these measures are priced. The results indicate that the returns of equity are not priced by

default risk and the nature is not systematic for default risk, whereas the default risk is not considered as proxy measured by Fama and French factors. Furthermore, the study concluded that results of Australian market are inconsistent with Vassalou and Xing (2004) results in US.

Spyrou and Kassimatis (2009) explained data for twelve European markets, i.e. Australia, Denmark, Germany, France, Ireland, Greece, Italy, Netherland, Sweden, Spain, UK and Switzerland. Results indicated that value premiums are high and significant. Capital Asset Pricing Model (CAPM) cannot measure the returns of stocks. Fama (1991) discussed that book to market is more powerful variable in cross section return of stock. Chen, Chan and Hsieh (1985) studied company size effect and examined the size premium in large portion of companies, listed on NYSE. The result suggested that the big companies have low returns than small companies by additional risk in efficient market. Durand, Juricev and Smith (2007) used three factor model proposed by Fama and French to examine the size portfolio. Similarly, the important components are size premium (SMB) and risk premium (Rm-Rf) of the cross section of returns on Australian market, based on data from 1990 to 2001. The results signified that the big company can earn lower returns as compared to small companies and the size premiums are statistically positive and significant. Horowitz, Loughran and Savin (2000) examined the return and size effect relationship between them and used the linear regression and regression of cross sectional method in stocks of NASDAQ, AMEX and NYSE from the period between 1980 and 1996. Result indicated that the size and return have no reliable relationship amongst them.

Review of above literature indicated that the value (book to market ratio) effect and size (small minus big) effect are recognized well in the worldwide and Pakistani evidence also exists, which is in line with the theory with same deviation regarding big stock behavior. And such observation is also reported in US market by Xing and Vassalou (2004). However, in developed markets the default risk is studied and evidence is mixed. Sometime, low default risk stocks earn more than high default risk stocks and other time high default stocks earn more than low default risk stocks. However, behavior of Pakistani market is still unexplored. This study is an effort to bridge this gap.

RESEARCH METHODLOGY

Data Description

In this study hundred Karachi stock Exchange (KSE) listed non-financial companies are used from time period

of 2000 to 2015 and their monthly closing prices are taken. The companies are chosen on the basis of market capitalization. The reason for using 100 companies is that only few companies are frequently traded in market. So, large sample leads to selection of inactive companies.

Sample consists of non-financial sector companies. The purpose to select only the non-financial sector is that the accounting period of financial sector closes at December but the accounting period closes at July for non-financial sector. Moreover, the capital structures of financial and non-financial sectors are different.

For Pakistan, monthly stock prices have been obtained from Karachi Stock Exchange. Index data have been taken from Karachi Stock Exchange, whereas, monthly risk free rate data are taken from the State Bank of Pakistan. These are considered as reliable sources of information.

The Financial default risk premium has been calculated by using theMerton's (1974) proposed model of option-pricing methodology. For individual companies the Option pricing model is used to calculate default measures. Market cap & BMR is calculated by using the data from annual financial reports of companies.

Measurement of Variables

The variables of size, BMR and Financial Distress Premium are calculated as under.

Size

In literature, size is measured by using Total Asset or Market Capitalization or sales.

In this study size is measured by using following formula.

$$Size = No.\ of\ share * MPS$$

Book to Market Ratio

Book to Market ratio is needed for sorting on the basis of value premium. The book to market ratio is calculated as under:

$$BMR = \frac{Total\ Equity}{Market\ Cap}$$

Financial Default risk premium

The financial default risk is calculated by using option pricing methodology proposed by Merton's (1974).

The market value of equity V_E, is calculated by the Black & Scholes formula for Call Options.

$$V_E = V_A\ N\ (d_1) - Xe^{-rT}\ N\ (d_2)$$

- VE is market value of equity
- VA is the firm's assets value (total assets)
- X is the book value of firms liabilities (long term liabilities + current liabilities)
- r is risk free
- T is time period
  Where,

$$d_1 = \frac{ln\ (V_A/X) + (r + \tfrac{1}{2}\ \sigma_A^{\,2})\ T}{\sigma A \sqrt{T}}$$

$$d2 = d1 - \sigma A\ \sqrt{T}$$

r is the risk-free rate, and N is the cumulative density function of the standard normal distribution table. Standard deviation (σA) is calculated by using formula given under

$$\sigma A = \frac{\sqrt{\Sigma\ (Rm - Rm\ )^2}}{n}$$

Probability of Default (PD)

Therefore we can rewrite the default probability as follows:

$$PD = \frac{N\ \{-\ ln\ (VA\ /\ X) + (\mu - \tfrac{1}{2}\ \sigma A2)\ T\}}{\sigma A \sqrt{T}}$$

Whereas,
N $(-d_1)$ = 1- N (d_1)
μ (Mean of change in lnV_A) = $\dfrac{lnV_{An} - 1}{lnV_A o}$

KMV Model is also used for estimation of distance to default (DD)

$$DD = \frac{ln\ (VA/\ X) + (\mu - \tfrac{1}{2}\ \sigma A2)\ T}{\sigma A \sqrt{T}}$$

Similarly, Expected Default Probability (EDP) is calculated by using following formula.

$$EDP = 1 - DD$$

The normal distribution which is theoretical distribution has been used, which is implied by Merton's model.

As per the Capital Asset Pricing Model (CAPM) the

single factor that is market premium is used to affect the returns, but according to the theory of arbitrage pricing (APT) returns are affected by many factors. Correspondingly, three factor model proposed by Fama and French (1992, 1993) by using market premium, value premium and size premium to affect the returns is used. Fama and French also identified financial default risk as an important priced factor. This study explored that the stock returns are influenced by the role of financial default risk premium. To find how stock returns are affected by these factors, methodology proposed by Fama and Macbeth (1973) is adopted.

Portfolio Construction

Size Sorted Portfolios

For the size sorted portfolios, the market capitalization for hundred companies is calculated. Then on the basis of market capitalization these companies are arranged.

Largest fifty companies are grouped as B and smallest fifty are groups as S. Average returns for both big (B) and small (S) companies have been calculated.

$$B = \frac{\sum Ri}{n} \quad \text{Where } Ri = \text{return of big companies}$$

$$S = \frac{\sum Ri}{n} \quad \text{Where } Ri = \text{return of small companies}$$

Value Sorted Portfolio

The sample of fifty big (B) companies is further sorted on the basis of high and low book to market ratio to create book to market ratio sorted portfolios. Twenty five companies with high book to market ratio are named as B/H and twenty five big companies with low book to market ratio are named as B/L. Average returns for both B/H and B/L companies are calculated.

Likewise, the sample of fifty small (S) companies is again sorted on the basis of high and low book to market ratio to create value sorted portfolios. Twenty five small companies with high book to market ratio are named as S/H and twenty five companies with low book to market ratio are named as S/L. Average returns for S/H and S/L companies are calculated.

Financial Default risk Sorted Portfolios

The sample of twenty five big companies with high book to market ratio is sorted with the high default risk and low default risk to create Default risk sorted portfolios. Ten big companies with high book to market ratio and high default risk are named as B/H/HD and ten big companies with high book to market ratio and low default risk are named as B/H/LD. Ten big companies with low book to market ratio and high default risk are named as B/L/HD and ten big companies with low book to market ratio and low default risk are as named as B/L/LD. And five mid companies are skipped as they are the average of same values and this study focuses on high default and lowest default companies to measure default risk. Average returns for each portfolio is calculated.

The sample of twenty five small companies is sorted on the basis of small companies with high book to market ratio and high default risk and small companies with high book to market ratio and low default risk to create default risk sorted portfolios. Ten small companies with high book to market ratio and high default risk are named as S/H/HD and ten small companies with high book to market ratio and low default risk are named as S/H/LD. Ten small companies with low book to market ratio and high default risk are named as S/L/HD and ten small companies with low book to market ratio and low default risk are named as S/L/LD. And five mid companies are skipped as they are the average of same values and this study focuses on highly default and lowest default companies to measure default risk. Average returns for each portfolio is calculated.

The above stated method is repeated for 2000-2015. It is worth mentioning that sorting is done on June 30 each year.

Variable Construction

All portfolios average returns are such as P, S, B, B/H, B/L, S/H, S/L, B/H/HD, B/H/LD, B/L/HD, B/L/LD, S/L/HD, S/L/LD, S/H/HD, S/H/LD are calculated and then these averages are used to construct size premium, value premium and default risk premium. Their construction is as follows:

$$\text{Market Premium} = MKT = (Rm - Rf)$$

Size Premium (SMB) = Small Size Companies – Big Size Companies

$$= \frac{1}{4}\{(S/H/HD - B/H/HD) + (S/H/LD - B/H/LD) + (S/L/HD - B/L/HD) + (S/L/LD - B/L/LD)\}$$

Value Premium (HML) = High Book to Market – Low Book to Market

$$= \frac{1}{4}\{(S/H/HD - S/L/HD) + (S/H/LD - S/L/LD) + (B/H/HD - B/L/HD) + (B/H/LD - B/L/LD)\}$$

Default risk Premium (HDMLD) = High Default risk and Low Default risk

$$= \frac{1}{4}\{(S/H/HD - S/H/LD) + (S/L/HD - S/L/LD) + (B/H/HD - B/H/LD) + (B/L/HD - B/L/LD)\}$$

Where,

$$Rm = \ln \; It / It-1$$

Rm stands for the market returns for month "t" and It and It-1 are closing values

Model Specification

This study is using multivariate regression with two pass regression model proposed by Fama and Macbeth (1973) methodology.

The relationship among the variables is as follow:

Return = α + β1 MKT Premium + β2 Size premium + β3 Value premium + β4 Default risk premium
Returnt = α + β1 MKTt + β2 SMBt + β3 HMLt + β4 HDMLDt + μt

Where,
R is return of portfolio
Rf = Risk Free Rate
MKT = Market Premium = Rm-Rf
SMB = Size Premium = Small – Big
HML = Value Premium = Return of High BMR Portfolios – Return of Low BMR Portfolios
HDMLD = Default risk Premium = Return of High Default risk Portfolios – Return of Low Default risk Portfolios
α = The Management's impact (Alpha)
μt = error term
For two pass cross section regression following econometrics relationship is used.

Rp = λₒ + λ1 β (MKT) + λ2 β (SMB) + λ3 β (HML) + λ4 β (HDMLD) + μt

Where,
βMKT = β of Market premium
βSMB= β of Size Premium
βHML= β of Value Premium

βHDMLD = β of Default risk Premium
μt =Error term

RESULTS

Empirical Results and Discussion

Table (1) reports the statistical behavior of size, value and default risk sorted portfolios. Descriptive statistics includes mean, median, standard deviation, skewness etc.

Size sorted portfolios indicate that big stocks portfolios "B" has lower returns than the small stock "S". The results are in line with the theory as risk of big stocks is 6.5%, which is higher than the risk of small stock, which exhibits 5.8% variation. Both portfolios are negatively skewed but the skewness is marginally negative. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by big stock is 22.7%, whereas small portfolios earned 14.6% in a month. Moreover, maximum loss in a month is incurred by big stock, which is 29%, whereas, small stock reported a maximum loss of 16.8% in a month.

When value sorted portfolios are examined, it is observed that small stock with low book to market stocks (SL) generally earned lower returns as compared to small stock low having high book to market stocks (SH). The results are consistent with the theory as risk of small stock with low book to market stock (SL) is 6.7%, which is higher than the risk of small stock high book to market stock (SH) that exhibits 6.1% variation.

TABLE 1
Descriptive Statistics Size, Value and Default risk sorted Portfolios

	Mean	Median	Std Dev.	Kurtosis	Skewness	Minimum	Maximum
P	0.010	0.006	0.058	3.705	-0.448	-0.217	0.158
B	0.009	0.011	0.065	5.014	-0.564	-0.290	0.227
S	0.011	0.010	0.058	3.173	-0.251	-0.168	0.146
BH	0.008	0.012	0.072	6.736	-0.503	-0.348	0.315
BL	0.009	0.010	0.064	3.369	-0.366	-0.232	0.142
SH	0.012	0.008	0.061	3.219	-0.323	-0.189	0.148
SL	0.009	0.007	0.067	3.401	0.253	-0.204	0.167
BLHD	0.006	0.013	0.072	4.639	-0.722	-0.327	0.150
BLLD	0.013	0.007	0.074	3.344	-0.049	-0.188	0.244
BHHD	0.009	0.007	0.090	12.86	0.412	-0.332	0.576
BHLD	0.008	0.015	0.072	5.024	-0.683	-0.381	0.175
SLHD	0.007	0.005	0.075	3.987	-0.347	-0.274	0.182
SLLD	0.012	0.006	0.072	3.486	0.062	-0.223	0.212
SHHD	0.013	0.010	0.071	3.792	0.091	-0.196	0.292
SHLD	0.011	0.011	0.073	5.297	-0.251	-0.305	0.287

Portfolios of small stock with high book to market stock (SH) is negatively skewed and small stock with low book to market stock (SL) is positively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by small stock with low book to market (SL) is 16.7%, whereas, small stock with high book to market stock (SH) earned 14.8% in a month. Moreover, maximum loss in a month is incurred by small stock with low book to market stock (SL) is 20.4%, whereas small stock high book to market stock (SH) reported a maximum loss of 18.9% in a month.

The big stock with low book to market stock (BL) has higher return than the big stock with high book to market stock (BH). The risk of big stock with high book to market stock (BH) is 7.2% which is higher than the risk of big stock with low book to market stock (BL) that exhibit 6.4% variation. Portfolio of big stock with high book to market stock (BH) and big stock with low book to market stock (BL) are negatively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by big stock with high book to market stock (BH) is 31.5%, whereas big stock with low book to market stock (BL) earned 14.2% in a month. Moreover, maximum loss in a month is incurred by big stock with high book to market stock (BH) is 34.8% whereas big stock with low book to market stock (BL) reported as maximum loss of 23.2% in a month.

When default sorted portfolios are examined, that big stock with low book to market stock and low default stock (B/L/LD) has higher returns than the big stock with low book to market stock and high default stock (B/L/HD). The risk of (B/L/LD) is 7.4% which is higher than the risk of (B/L/HD) that exhibits 7.2% variation. The portfolio of big stock with low book to market stock and high default stock (B/L/HD) and big stock with low book to market stock and low default stock (B/L/LD) are negatively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by big stock with low book to market stock and low default stock (B/L/LD) is 24.4% where as big stock with low book to market stock and high default stock (B/L/HD) earned 15% in a month. Moreover, maximum loss in a month is incurred by big stock with low book to market stock and high default stock (B/L/HD) which is 32.7% whereas big stock with low book to market stock and low default stock (B/L/LD) reported a maximum loss of 18.8% in a month.

The big stock with high book to market stock and high default stock (B/H/HD) has higher return than the big stock with high book to market stock and low default stocks (B/H/LD). The results are consistent with the theory as risk of big stock with high book to market stock and high default stock (B/H/HD) is 9% which is higher than the risk of big stock with high book to market stock and low default stocks (B/H/LD) that exhibit 7.2% variation. The portfolio of big stock with high book to market stock and high default stock (B/H/HD) are positively skewed and the portfolio of big stock with high book to market stock and low default stocks (B/H/LD) are negatively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by big stock with high book to market stock and high default stock (B/H/HD) is 57.6% whereas big stock with high book to market stock and low default stocks (B/H/LD) earned 17.5% in a month. Moreover, maximum loss in a month is incurred by big stock with high book to market stock and high default stocks (B/H/HD) which is 38.1% whereas big stock with high book to market stock and low default stock (B/H/LD) reported a maximum loss of 33.2% in a month

The small stock with low book to market stock and low default stocks (S/L/LD) has higher return than the small stock with low book to market stock and high default stock (S/L/HD). The results are consistent with the theory as risk of small stock with low book to market stock and low default stocks (S/L/LD) is 7.5%, which is higher than the risk of small stock with low book to market stock and high default stock (S/L/HD) that exhibit 7.4% variation. The small stock with low book to market stock and high default stocks (S/L/HD) are negatively skewed but the small stock with low book to market stock and low default stock (S/L/LD) are positively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return earned by small stock with low book to market stock and low default stocks (S/L/LD) is 21.2% where as small stock with low book to market stock and high default stock (S/L/HD) earned 18.2% in a month. Moreover, maximum loss in a month is incurred by small stock with low book to market stock and high default stocks (S/L/HD) which is 27.4% whereas small stock with low book to market stock and low default stock (S/L/LD) reported a maximum loss of 22.3% in a month.

The small stock high with book to market stock and high default stock (S/H/HD) has higher returns than the small stock with high book to market stock and low default stock (S/H/LD). The risk of small stock with high book to market stock and low default stock (S/H/LD) is 7.3% which is higher than the risk of small stock with high book to market stock and high default stock (S/H/HD) that exhibit 7.1% variation. The small stock with high book to market stock and low default stock (S/H/LD) are negatively skewed and the small stock with high book to market stock and high default stock (S/H/HD) are positively skewed. These portfolios have positive kurtosis as value of kurtosis is greater than 3. High return is earned by small stock with high book to market stock and high default stock (S/H/HD) is 29.2% whereas small

stock with high book to market stock and low default stock (S/H/LD) earned 28.7% in a month. Moreover, maximum loss in a month is incurred by small stock with high book to market stock and low default stock (S/H/LD) which is 30.5% whereas small stock with high book to market stock and high default stock (S/H/HD) reported a maximum loss of 19.6% in a month

TABLE 2
Correlation Matrix

	RM-RF	SMB	HML	HDMLD
RM-RF	1			
SMB	0.160	1		
HML	0.089	0.068	1	
HDMLD	0.003	0.340	0.118	1

Table (2) reports correlation among four premiums. The market premium has non-significant positive correlation with size and value premium where as significant and positive correlation with default premium. Size premium has non-significant positive correlation with Value premium and default premium. Similarly, positive correlation is observed between value and default premium, but it is non-significant. It indicates that problem of multicolinearity does not exist.

TABLE 3
Comparative Statement of Adj. R²

Dependent Variable	CAPM	3FM-FF	Default Based Model
P	0.502	0.518	0.597
B	0.192	0.293	0.201
S	0.164	0.274	0.305
B/H	0.177	0.241	0.264
B/L	0.068	0.225	0.222
S/H	0.229	0.283	0.257
S/L	0.145	0.255	0.308
B/H/HD	0.046	0.234	0.317
B/H/LD	0.233	0.286	0.291
B/L/HD	0.063	0.113	0.323
B/L/LD	0.048	0.164	0.267
S/H/HD	0.093	0.324	0.462
S/H/LD	0.068	0.232	0.291
S/L/HD	0.073	0.167	0.318
S/L/LD	0.184	0.347	0.335

Comparison of the explanatory power of conventional CAPM, Fama and French three factor model and augmented model reveal that the default based

model has higher adjusted R² indicating that default risk premium is able to capture the additional information regarding returns. CAPM is valid as market premium is found significant in all portfolios but the explanatory power is very low. This indicates that there exist other factors that contribute towards the return of portfolios.

The same argument is used by Fama and French model, where size premium and value premium capture significant impact on market return. The same phenomenon is studied for default risk premium that explains return for most of the portfolio.

TABLE 4
Regression Analysis (Two pass Regression)
Cross Sectional Two Pass Regression

	Coefficient	Std. Error	T Stat	P-value	Adj. R²	Sig. F
Intercept	0.008	0.001	8.222	0.000	0.864	0.000
βMkt Prem	0.003	0.001	1.949	0.079		
βSize Prem	0.002	0.000	2.563	0.000		
βvalue Prem	0.001	0.000	0.730	0.001		
βDefault Risk Prem	0.002	0.001	2.170	0.055		

Two pass regressions are applied on conventional portfolios to explain the predictive power of factor understandings. The results are reported in Table (4). The findings of study indicate that Market beta and default risk beta can forecast portfolios returns. However, beta of size premium and beta of value premium are significantly positively associated with the returns. The Fama and French (1996) argue that the size and value appears to contain other significant market information. The explanatory power of model is 86.4%, which is good. This indicates that CAPM is relatively weak for estimating return as it is only based on market factors. However the size and value are those factors used for predicting market return.

DISCUSSION

This study analyzes the role of default risk premium in explaining equity return in Pakistan equity market. A sample of 100 non-financial companies is taken from listed companies of KSE for the period of 2000 to 2015 is used to examine the impact of various factors on equity return. The current study uses Option Pricing Model proposed by Merton's (1974) to compute default risk premium and examine the influence of default risk on equity returns.

The factors include market premium, size premium,

value premium and default risk premium. The descriptive statistics of premiums associated with other factors are calculated and these are found positive. The value premium is highest followed by market premium and the default risk premium is found highest. The correlation among the premium is also examined and no issue of multi co-linearity is observed.

The CAPM, three factors model and default based model are tested, result of CAPM are consistent with the theory but the explanatory power is low. Results of three factors are also in track with study conducted in Pakistan (Mirza & Shahid, 2008). Hassan and Javed (2010) examined the value premium, size premium and equity returns relationship from 2000 to 2007, in Pakistan market. Results indicate that the small portfolios returns are significantly and positively related to factor of size premium. The result of size sorted portfolios returns indicate the small size has high risk and high return but opposite results for big size; however, these are insignificant for big stocks portfolios. The value factor has positive and significant relation with all portfolios except low book to market stocks, which means that book to market effect, exists in Pakistan market. The study also states that Fama and French three factor model has higher explanatory power than CAPM. Additionally, Fama and French three factor model explains the cross section of stock returns in Karachi stock exchange (KSE).

Default risk premium is found to have negative and significant impact on small stocks and high book to market and it has significant effect on low book to market stocks. Similarly, inconsistent behavior is found in big stocks, whereas low book to market stocks have negative impact and high book to market stocks have positive impact. Hence explanatory power of the model is better than CAPM. When the default premium is added the explanatory power of the model is increased practically and default premium appears to be priced by market. This default effect is positive for high default stocks and negative for low default stocks.

REFERENCES

Agarwal, V., & Taffler, R. (2003). The distress factor effect in equity returns: Market mispricing or omitted variable? In Staff Research Seminar Series, Manchester School of Accounting and Finance, Manchester, February

Ajili, S. (2002). The Capital Asset Pricing Model and the three Factor Model of Fama and French revisited in the case of France. Cahier de Recherché du CEREG, University Paris IX Dauphine, (2002-10), 1-26.

Allen, D. E., & Powell, R. (2007). Industry market value at risk in Australia (No. 2007-04).

Almeida, H., & Philippon, T. (2007). The risk-adjusted cost of financial distress. *The Journal of Finance*, 62(6), 2557-2586.

Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The Journal of Finance*, 23(4), 589-609.

Amihud, Y. (2002). Illiquidity and stock returns: cross-section and time-series effects. *Journal of Financial Markets*, 5(1), 31-56.

Amihud, Y., & Mendelson, H. (1986). Liquidity and stock returns. *Financial Analysts Journal*, 42(3), 43-48.

Anginer, D., &Yildizhan, C. (2014). Is there a distress risk anomaly? Pricing of systematic default risk in the cross section of equity returns. Pricing of Systematic Default Risk in the Cross Section of Equity Returns (May 19, 2014).

Auret, C. J., & Sinclaire, R. A. (2006). Book-to-market ratio and returns on the JSE. *Investment Analysts Journal*, 35(63), 31-38.

Avramov, D., Chordia, T., Jostova, G., & Philipov, A. (2007). Momentum and credit rating. *The Journal of Finance*, 62(5), 2503-2520.

Bahl, B. (2006). Testing the Fama and French Three-factor model and its variants for the Indian stock returns. Available at SSRN 950899.

Banz, R. W. (1981). The relationship between return and market value of common stocks. *Journal of Financial Economics*, 9(1), 3-18.

Barber, B. M., & Lyon, J. D. (1997). Firm size, book-to-market ratio, and security returns: a holdout sample of financial firms. *The Journal of Finance*, 52(2), 875-883.

Basu, S. (1983). The relationship between earnings' yield, market value and return for NYSE common stocks: Further evidence. *Journal of Financial Economics*, 12(1), 129-156.

Berndt, A., Lookman, A. A., & Obreja, I. (2007, September). Default risk Premia and asset returns. In AFA 2007 Chicago Meetings Paper.

Bharath, S. T., & Shumway, T. (2004, December). Forecasting default with the KMV-Merton model. In AFA 2006 Boston Meetings Paper.

Bharath, S. T., & Shumway, T. (2004, December). Forecasting default with the KMV-Merton model. In AFA 2006 Boston Meetings Paper.

Bharath, S. T., & Shumway, T. (2008). Forecasting default with the Merton distance to default model. Review of Financial Studies, 21(3), 1339-1369.

Black, F. (1972). Capital market equilibrium with restricted borrowing. *The Journal of Business*, 45(3), 444-455.

Black, F., & Scholes, M. (1973). The pricing of options and corporate liabilities. *The Journal of Political Economy*, 81(3), 637-654.

Breig, C., & Elsas, R. (2007). The Impact of Default Risk on Equity Returns: Evidence from a Bank-Based Financial System. Working Paper.

Brennan, M. J., & Wang, A. (2001). Intertemporal capital asset pricing and the Fama-French three-factor model.

Bystrom, H., Worasinchai, L., & Chongsithipol, S. (2005). Default risk, systematic risk and Thai firms before, during and after the Asian crisis. *Research in International Business and Finance*, 19(1), 95-110.

Campbell, J. Y., Hilscher, J., & Szilagyi, J. (2004). nIn search of distress risk, Working Paper. Harvard University.

Campbell, J. Y., Hilscher, J., & Szilagyi, J. (2008). In search of distress risk. *The Journal of Finance*, 63(6), 2899-2939.

Carhart, M. M. (1997). On persistence in mutual fund performance. The Journal of finance, 52(1), 57-82

Chan, H., Faff, R., & Kofman, P. (2011). Is default risk priced in Australian equity? Exploring the role of the business cycle. *Australian Journal of Management*, 36(2), 217-246.

Chan, K., Chen, N. F., & Hsieh, D. A. (1985). An exploratory investigation of the firm size effect. *Journal of Financial Economics*, 14(3), 451-471.

Chava, S., & Purnanandam, A. (2010). Is default risk negatively related to stock returns? *Review of Financial Studies*, 29(12), 1-62.

Chava, S., & Purnanandam, A. (2010). Is default risk negatively related to stock returns? *Review of Financial Studies*, hhp107

Chen, J. (2002, May). Intertemporal CAPM and the cross-section of stock returns. In EFA 2002 Berlin Meetings Discussion Paper.

Chen, L., Petkova, R., & Zhang, L. (2008). The expected value premium. *Journal of Financial Economics*, 87(2), 269-280.

Chen, N. F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 59(3), 383-403.

Chung, Y. P., Johnson, H., & Schill, M. J. (2006). Asset Pricing When Returns Are Nonnormal: Fama-French Factors versus Higher-Order Systematic Comoments*. *The Journal of Business*, 79(2), 923-940.

Chung, Y. P., Johnson, H., & Schill, M. J. (2006). Asset Pricing When Returns Are Nonnormal: Fama-French Factors versus Higher-Order Systematic Comoments*. *The Journal of Business*, 79(2), 923-940

Cochrane, J. H. (1991). A simple test of consumption insurance. *Journal of Political Economy*, 99(5), 957-976.

Conrad, J., & Kaul, G. (1988). Time-variation in expected returns. *Journal of Business*, 61(4), 409-425.

Cooper, I. A., & Mello, A. S. (1991). The default risk of swaps. *The Journal of Finance*, 46(2), 597-620.

Cox, T. (1985). The nature and measurement of stress. ergonomics, 28(8), 1155-1163.

Da, Z., &Gao, P. (2005). Default Risk and Equity Return: Macro Effect or Micro Noise? Available at SSRN 659241

Das, S. R., Freed, L., Geng, G., & Kapadia, N. (2002). Correlated default risk. In EFA 2003 Annual Conference Paper (No. 928).

Das, S. R., Freed, L., Geng, G., & Kapadia, N. (2002). Correlated default risk. In EFA 2003 Annual Conference Paper (No. 928).

Dempsey, M. (2010). The book-to-market equity ratio as a proxy for risk: evidence from Australian markets. *Australian Journal of Management*, 35(1), 7-21.

Dichev, I. D. (1998). Is the risk of bankruptcy a systematic risk?. *The Journal of Finance*, 53(3), 1131-1147.

Duffee, G. R. (1999). Estimating the price of default risk. *Review of Financial Studies*, 12(1), 197-226.

Durand, R. B., Juricev, A., & Smith, G. W. (2007). SMB—arousal, disproportionate reactions and the size-premium. *Pacific-Basin Finance Journal*, 15(4), 315-328.

Elton, E. J. (1999). Presidential address: expected return, realized return, and asset pricing tests. *The Journal of Finance*, 54(4), 1199-1220.

Erlenmaier, U., & Gersbach, H. (2014). Default Correlations in the Merton Model. *Review of Finance*, 18(5), 1775-1809

Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. *The Journal of Finance*, 50(1), 131-155.

Fama, E. F., & French, K. R. (1996). The CAPM is wanted, dead or alive. *The Journal of Finance*, 51(5), 1947-1958.

Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of Financial Economics*, 43(2), 153-193.

Fama, E. F., & French, K. R. (2004). The capital asset pricing model: Theory and evidence. *The Journal of Economic Perspectives*, 18(3), 25-46.

Fama, E. F., & French, K. R. (2006). The value premium and the CAPM. *The Journal of Finance*, 61(5), 2163-2185

Fama, E. F., & French, K. R. (2012). Size, value, and momentum in international stock returns. *Journal of Financial Economics*, 105(3), 457-472.

Fama, E. F., & French, K. R. (2015). A five factor

asset pricing models. *The Journal of Financial Economics*, 116(2015), 1-22.

Fan, H., & Sundaresan, S. M. (2000). Debt valuation, renegotiation, and optimal dividend policy. *Review of Financial Studies*, 13(4), 1057-1099.

Gao, P., Parsons, C. A., &Shen, J. (2013). The global relation between financial distress and equity returns. Available at SSRN 2086475.

Garlappi, L., & Yan, H. (2011). Financial Distress and the Cross-section of Equity Returns. *The Journal of Finance*, 66(3), 789-822.

Garlappi, L., & Yan, H. (2011). Financial distress and the cross-section of equity returns. *The Journal of Finance*, 66(3), 789-822.

Garlappi, L., Shu, T., & Yan, H. (2008). Default risk, shareholder advantage, and stock returns. *Review of Financial Studies*, 21(6), 2743-2778.

Garlappi, L., Shu, T., & Yan, H. (2008). Default risk, shareholder advantage, and stock returns. *Review of Financial Studies*, 21(6), 2743-2778.

Gertner, R. H., Scharfstein, D. S., & Stein, J. C. (1994). Internal versus external capital markets (No. w4776). National Bureau of Economic Research.

Gharghori, P., Chan, H., & Faff, R. (2007). Are the Fama-French factors proxying default risk? *Australian Journal of Management*, 32(2), 223-249.

Gharghori, P., Chan, H., & Faff, R. (2009). Default risk and equity returns: Australian evidence. *Pacific-Basin Finance Journal*, 17(5), 580-593.

Griffin, J. M. (2002). Are the Fama and French factors global or country specific? *Review of Financial Studies*, 15(3), 783-803.

Hacking, I. (1990). The taming of chance (Vol. 17). Cambridge University Press.

Harvey, C. R. (1989). Time-varying conditional covariance in tests of asset pricing models. *Journal of Financial Economics*, 24(2), 289-317.

Hassan, A., & Javed, M. T. (2011). Size and value premium in Pakistani equity market. *African Journal of Business Management*, 5(16), 6747.

Hiang Liow, K., & Chuan Sim, M. (2006). The risk and return profile of Asian real estate stocks. *Pacific Rim Property Research Journal*, 12(3), 283-310.

Hillegeist, S. A., Keating, E. K., Cram, D. P., & Lundstedt, K. G. (2004). Assessing the probability of bankruptcy. *Review of Accounting Studies*, 9(1), 5-34.

Ho, T. S., & Singer, R. F. (1982). Bond indenture provisions and the risk of corporate debt. *Journal of Financial Economics*, 10(4), 375-406.

Holst, A. D. C., & Martynenko, O. (2010). Default Risk in Equity Returns.

Horowitz, J. L., Loughran, T., & Savin, N. E. (2000). Three analyses of the firm size premium. *Journal*

of Empirical Finance, 7(2), 143-153.

Hsu, J. C., Saa-Requejo, J., & Santa-Clara, P. (2004). Bond pricing with default risk. Available at SSRN 611401.

Hull, J., & White, A. (1992). The price of default. Risk, 5(8), 101-103.

Hull, J., Predescu, M., & White, A. (2004). The relationship between credit default swap spreads, bond yields, and credit rating announcements. Journal of Banking & Finance, 28(11), 2789-2811.

Jegadeesh, N., & Titman, S. (1993). Returns to buying winners and selling losers: Implications for stock market efficiency. *The Journal of Finance*, 48(1), 65-91.

Johnson, H., & Stulz, R. (1987). The pricing of options with default risk. *The Journal of Finance*, 42(2), 267-280.

Kealhofer, S., &Bohn, J. R. (1998). Portfolio management of default risk. *Net Exposure*, 1(2), 12-40.

Korteweg, A. (2010). The net benefits to leverage. *The Journal of Finance*, 65(6), 2137-2170.

Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. *The Journal of Finance*, 20(4), 587-615.

Lintner, J. (1965). The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. *The Review of Economics and Statistics*, 47(1), 13-37.

Longstaff, F. A., & Schwartz, E. S. (1993). Implementation of the Longstaff-Schwartz interest rate model. *The Journal of Fixed Income*, 3(2), 7-14.

MacKinlay, A. C. (1995). Multifactor models do not explain deviations from the CAPM. *Journal of Financial Economics*, 38(1), 3-28.

Madan, D. B., &Unal, H. (1998). Pricing the risks of default. *Review of Derivatives Research*, 2(2-3), 121-160.

Malik, U. S., Aftab, M., & Noreen, U. (2013). Distress Risk and Stock Returns in an Emerging Market. *Research Journal of Finance and Accounting*, 4(17), 81-85.

Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.

Markowitz, H. M. (1991). Foundations of portfolio theory. *The Journal of Finance*, 46(2), 469-477.

Merton, R. C. (1973). Theory of rational option pricing. *The Bell Journal of Economics and Management Science*, 4(1), 141-183.

Merton, R. C. (1974). On the pricing of corporate debt: The risk structure of interest rates. *The Journal of Finance*, 29(2), 449-470.

Mirza, N., & Shahid, S. (2008). Size and value premium in Karachi stock exchange.

Ohlson, J. A. (1980). Financial ratios and the probabilistic

prediction of bankruptcy. *Journal of Accounting Research*, 18(1), 109-131.

Opler, T. C., & Titman, S. (1994). Financial distress and corporate performance. *The Journal of Finance*, 49(3), 1015-1040.

O'Sullivan, F., Hwang, J. G., Zahn, M., Hjortstam, O., Pettersson, L., Liu, R., & Biller, P. (2008, June). A model for the initiation and propagation of positive streamers in transformer oil. In Electrical Insulation, 2008. ISEI 2008. Conference Record of the 2008 IEEE International Symposium on (pp. 210-214). IEEE.

Patel, K., & Vlamis, P. (2006). An empirical estimation of default risk of the UK real estate companies. *The Journal of Real Estate Finance and Economics*, 32(1), 21-40

Patel, K., & Vlamis, P. (2006). An empirical estimation of default risk of the UK real estate companies. *The Journal of Real Estate Finance and Economics*, 32(1), 21-40.

Reinganum, M. R. (1981). The arbitrage pricing theory: Some empirical results. *The Journal of Finance*, 36(2), 313-321.

Rosenberg, B., Reid, K., & Lanstein, R. (1985). Persuasive evidence of market inefficiency. *The Journal of Portfolio Management*, 11(3), 9-16.

Ross, S. A. (1976). The arbitrage theory of capital asset pricing. *Journal of Economic Theory*, 13(3), 341-360.

Rubinstein, M. (1976). The valuation of uncertain income streams and the pricing of options. *The Bell Journal of Economics*, 7(2), 407-425.

Sharma, R., & Mehta, K. (2013). Fama and French: Three factor model. *SCMS Journal of Indian Management*, 10(2),90.

Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), 425-442.

Shumway, T. (2001). Forecasting bankruptcy more accurately: A simple hazard model*. *The Journal of Business*, 74(1), 101-124.

Spyrou, S., & Kassimatis, K. (2009). Time-variation in the value premium and the CAPM: evidence from European markets. *Applied Financial Economics*, 19(23), 1899-1914.

Stattman, D. (1980). Book values and stock returns. *The Chicago MBA: A Journal of Selected Papers*, 4(1), 25-45.

Tobin, J. (1958). Liquidity preference as behavior towards risk. *The Review of Economic Studies*, 25(2), 65-86.

Van Dijk, M. A. (2011). Is size dead? A review of the size effect in equity returns. *Journal of Banking & Finance*, 35(12), 3263-3274.

Vassalou, M., & Xing, Y. (2004). Default risk in equity returns. *The Journal of Finance*, 59(2), 831-868.

Xing, Y. (2004). Firm investments and expected equity returns. Working paper, Rice University.

Zhou, C. (2001). An analysis of default correlations and multiple defaults. *Review of Financial Studies*, 14(2), 555-576

Zmijewski, M. E. (1984). Methodological issues related to the estimation of financial distress prediction models. *Journal of Accounting Research*, 59-82.

REVISITING HRA / HRR PREPOSITION:
HOW TO BRING HUMAN RESOURCE ASSET INTO BALANCE SHEET

SAFDAR ALI BUTT
Capital University of Science and Technology, Islamabad, Pakistan

ABSTRACT

While most firms acknowledge the importance of their human resource assets, no firm has as yet tried to show it in its balance sheet. This is due to three main problems: firstly, the absence of a generally acceptable measurement of the value of this asset; secondly, the apparent breach of existing accounting standards and thirdly the possible tax implications. This article offers a solution to all these problems.
The author proposes that the financial value of Human Resource Asset should be equal to the excess of NPV of a firm with existing staff over NPV of the same firm computed on the assumption of having an average quality of staff. Once measured, this asset can be brought to books through a formal accounting entry, debiting Human Resource Asset (to be shown in the Balance Sheet as an intangible asset) and crediting Human Resource Reserve (to be shown in the balance sheet as a non-distributable part of equity). The author also proposes periodic adjustment and prescribes accounting treatment for the same.

INTRODUCTION

In 2013, I wrote a paper on "How to Bring Human Resource Asset into Balance Sheet", putting forward a case for doing so and proposing an accounting treatment that would not breach any accounting standards. This paper appeared in a French journal, Pensee, Vol 75, December 2013. Since then I have received a lot of emails from researchers and finance professionals from different parts of the world on various aspects of issues pertinent to the topic. I have also discussed this paper with a number of my Ph D students and presented it at seminars and conferences in and outside Pakistan.

A lot of proverbial water has flown under the bridge since the paper's first publication. I have received some very positive feedback from a number of quarters including some practicing chartered accountants. In light of these communications, I have revisited my HRA/HRR preposition. But first let us take a look at the basic concept.

The Basic Concept

Management research literature is replete with studies that claim that the most important asset held by most of the successful companies is their human resource. Almost every chairman extols the virtue of his company's human resource in his annual report. But it all appears to be a part of public relations exercise more

than a true belief in the value of this asset as it continues to fail to find a place in any company's balance sheet.

Human resource accounting was defined for the first time by Brummet, Flamholtz & Pyle (1968) as "a tool for increasing managerial effectiveness in the acquisition, development, allocation, maintenance, and utilization of its human resources". This area was further explored by Sackmann, Flamholtz & Bullen (1989), Flamholtz, Bullen & Hua (2002), and Flamholtz, Kannan-Narasimhan & Bullen (2004).

More interestingly, Morrow (1996 & 1997) investigated the concept of human resource assets in professional football teams in United Kingdom. Investors consider human resource assets while evaluating a football company in additional to structural and relational capital (Wagner, 2007).

In 1991, Robert Grant came up with his Resources Based Theory of Competitive Advantage which clearly pegged a firm's value to "the substance of its resources", human resource being one of the most important ones. However, he fell short of proposing means of bringing this important resource (that could bestow competitive advantage to a firm and thereby increase its value) into formal books of accounts.

Despite considerable awareness on, and universal acceptance of, the value of human resource very few firms, if indeed any, have ever tried to show this important asset in their balance sheet. This is perhaps due to three main problems:

- Absence of a generally acceptable measure of the value of this asset;
- Likelihood of breaching accounting standards that are almost invariably in favor of showing intangible assets in the balance sheet at "cost to the firm, rather than value to the firm"; and
- The possible tax implications.

I propose to offer solutions to all three of these problems.

Human Resource Asset or Human Resource Capital

As a person with finance background, I am disinclined to use the term "capital" for what a firm's human resource means or does for its operations. An asset is what a firm uses to carry out its operations; capital is what you invest to acquire an asset. I therefore believe it is more appropriate to classify the capabilities of a company's human resources as an asset. Funds used to acquire, train and retain such valuable staff undoubtedly come out of capital as the funds used to buy other tangible and non-tangible assets. Just as a plant generates cashflows, and a better plant generates better cashflows – human resource helps a company make profits and better human resource leads a company to make higher profits than its competitors.

However, in accounting terms, an asset must come from somewhere – there has to be a provider of funds to buy these assets – an owner (read equity) or a lender (read liabilities). Equity holders have a dual function – they are the providers of capital to the company but their more important qualification is 'their right to the residual assets of the company'. In this sense, the human resource (being generator of cashflows) is an asset and the benefit of this asset's superiority over other companies essentially goes to the equity holders. I therefore believe that human resource should be called an asset with a counterpart in the balance sheet called Human Resource Reserve, shown as a part of the firm's equity.

Defining Human Resource Asset (HRA)

Human resource asset represents the potential of future profits that a company holds in the form of having superior leaders, managers and employees. Thus the scope of human resource asset has two distinct facets: firstly it refers to the potential of generating future profits, not actual or past efforts of the people whom a company calls its human resource. Flamholtz (1973 and 1999) relates this idea to economic value theory, stating that all employees possess value because they are capable of rendering future service and their individual value can be defined as present value of the future

services he/she is expected to provide for the period of time he/she is expected to remain in the organization. And secondly, HRA includes the efforts of all those who work for the company, at whatever level, be them as the directors, managers or employees of the company. The only caveat we may add here is perhaps that they should be associated full time with the company – thereby excluding temporary or casual workers.

Efforts put in by the employees of the company are paid for almost immediately. In accounting terms, the benefit received from paying out an asset (cash) is treated as an expense which is offset against the current revenues to measure profits. In this sense, it would be unrealistic to call all human effort, or the services of all the employees, as an asset. We need a more formal method of measuring the value of human resource asset.

A large number of papers have been published showing the merits of various methods of accounting treatment of expenditure incurred in acquiring, training, developing and retaining high quality manpower. However, these methods are restricted to treatment of "actual expenditure" only. The inadequacy of these methods will be discussed later in this article.

How to measure the value of HRA?

Recently, GAAP in USA proposed adoption of more innovative methods with traditional cost approach, transpiring to the indication of encouragement of alternative standards. Thus accountants who are too tied to accounting standards in preparation of financial statements are being offered a possibility to incorporate human resource asset in future annual reports. However, the task is not an easy one.

It is easy, and fairly common, to measure the quality of human resource through various performance evaluation procedures. Many multi-national corporations have elaborate talent assessment schemes which help them identify talent at an early stage and nurture it for handling greater responsibilities in the future. However, the objective of such schemes is to strengthen their HR department by ensuring a constant flow of high caliber managers. Their focus is not on placing a monetary value on their human resource talent. It therefore remains difficult to quantify this asset in monetary terms so as to arrive at a value at which it could be legitimately shown in the balance sheet.

A review of literature shows that several attempts have been made in this regard. Some of the common methods of measuring HRA that have been proposed by researchers over the recent past are enumerated below.

a. Any expenditure incurred on staff training and

development should be treated as an asset in about the same way as expenditure incurred on product research and development is capitalized – and later amortized over a period. This method suffers from a major defect. Accounting standards in most countries permit the companies to write off product R&D expense each year in order to benefit from tax shield provided by expensing it instead of treating it as an asset. There are of course exceptions (e.g. where R&D expense is too large to be absorbed by one accounting year's revenue) but the general practice is not to capitalize product research and development expenditure. If companies were given an option to treat expenditure incurred on staff training and development as an asset, they would most certainly not take the offer as it will deprive them of a valuable tax benefit. (Hongren 1972)

b. Human resource asset be clubbed with what is fashionably known as Intellectual Capital. While it is difficult to argue against the idea of human resource being one of the elements of a firm's intellectual capital, it would be unwise to think that human resource alone constitutes a firm's entire intellectual capital. These are two very different areas. Human Resource Assets should preferably be handled separately from the other elements of a firm's intellectual capital. (Sullivan 2000)

c. HRA may be measured in about the same way as goodwill is measured upon acquisition of a subsidiary. The excess of "total expenditure incurred on acquiring, training and retaining good staff" over the value of their efforts put in the current year should be capitalized. While this method has some merit, it also suffers from tax disadvantage. (IAS 38 and IFRS 3)

d. According to Flamholtz (1973 and 1999), human resource can be measured through two costs i.e. acquisition costs which comprise of direct costs of recruitment, selection, hiring and placement, as well as costs of promotion; and learning costs comprising of the direct costs of formal training and orientation and on-the-job training. These costs should be reported in asset accounts with future economic benefits rather than as expenses in a human resource accounting system According to economic value theory, all employees possess value because they are capable of rendering future service. Thus, individual value of an employee can be defined as "present value of the future services the individual is expected to provide for the period of time the individual is expected to remain in the organization". To compute present value of future services of each and every individual employee of the organization, and to keep revising it upon each movement in personnel, can however be both very expensive and very difficult – and the resultant figure may turn out to be imprecise.

None of the above methods have gained currency among companies of any size, mainly for reasons already stated. I now wish to propose a method that I hope will not only be free from defects suffered by afore-stated methods but also represent the true essence of valuing the human resource asset through a reliable means of measuring such a value. My idea takes inspiration from Flamholtz who has talked about the present value of future efforts of individual employees but goes a little further than that; I propose a more practical approach of applying it to the entire firm.

HRA/HRR Preposition

My proposition is that the true value of a firm's human resource asset lies in its ability to improve the firm's net present value. If we look at the real situation from the stand point of a simple finance manager, other things being equal, the only thing that will lead a company's net present value to be higher than its competitors' is the quality of its human resource. Opportunities to enhance cashflows exist for all the players in the market; but only those companies that have better manpower (and leaders) are actually able to exploit such opportunities. It is this distinction which truly represents the value of a company's human resource asset. Another way of looking at this proposition is that only if a firm's human resource team is capable of improving its NPV vis-à-vis the firm's competitors can it qualify to be considered as an asset; otherwise it simply represents an already written off expense. An asset in a balance sheet represents a benefit to be received in the future. An expense in the Income Statement represents a benefit already consumed by the firm in the respective accounting period. It therefore follows that an HR team that has potential to improve the future cashflows of the company is an asset, deserving to be placed in the balance sheet. An HR team that does not offer such a potential is not an asset but simply an expense entry in the income statement.

It is therefore proposed that in the first instance, if a company truly believes that its human resource is a real asset that is giving it a competitive advantage, it should prepare two present value statements, based on two separate sets of projected cash flows. The first set of cash flow projections should show what the company with its existing human resource is likely to yield over the next, say, ten years. The second set of cash flow projections

should be based on the assumption that the company has average standard of employees, not capable of benefiting fully from all the opportunities available to the company in the coming ten years.

In my earlier paper, I had proposed that both the sets of cash flow projections should be discounted using the same discounting rate (may be the company's WACC). I now believe that this approach needs some fine tuning. The first set of cashflows (based on actual human resource commanded by the company) should be discounted at company's prevailing WACC, while the second set of cashflows (based on assumption of an average quality of human resource) should be discounted at the average WACC of the relevant industry in which a firm operates. This change in approach has been prompted by an observation that firms with higher quality human resource are able to command a lower WACC than their competitors. In turn, this should serve to improve the firm's NPV.

The difference between the two NPVs should, in my opinion, be taken as the true value of the company's human resource asset.

In terms of an equation:
HRA = NPV1 less NPV2

Where NPV1 is the net present value expected to be generated by the company's existing staff and NPV2 is the net present value expected to be generated if the company had only average quality staff.

Example

ABC Ltd believes that its human resource is far superior to that of its competitors. Its management prepares the following discounted cash-flow projections, for two scenarios. Case X represents the net present value expected to be achieved through the efforts of its current human resource while Case Y represents the net present value to be achieved by the company with similar assets but inferior human resource. Here the word inferior is relative to the quality of company's existing human resource but intended to represent the average of the industry in which ABC Ltd operates.

Year	NPV under Case X (existing HR, at firm's WACC) $ millions	NPV under Case Y (Average HR, at industry's average WACC) $ millions
1	245	218
2	285	254
3	322	287
4	354	315
5	391	348
6	424	377
7	462	411
8	505	449
9	551	490
10	612	545
Total	4,151	3,694

Case X represents NPV1 while Case Y represents NPV2. Their difference $ 467 million is equal to the human resource asset commanded by the company.

Possible criticism on HRA = NPV1 less NPV2

It is possible to criticize the above equation on the grounds of subjectivity. NPV1 is probably not a disputed issue as all companies do compute their own (or their desired acquisitions') net present value from time to time. The main issue is "how accurately can a company compute the Case Y figure: NPV2?" My answer to this question is that a company should be equally realistic in computing both the NPVs. The task can be assigned to a board committee, or a team comprising of internal and external experts in order to minimize the impact of subjectivity and to ensure coverage of all pertinent factors that influence company's future cash flows.

A related criticism on using the NPV approach refers to the diversity of different factors that potentially affect the computation of NPV. This is essentially true. A number of factors other than human resource element may affect the computation of NPV of a firm. But this does not impair the validity of HRA/HRR Preposition. There should be no difference in factors to be kept in mind when computing NPV1 and NPV2 other than the difference in quality of human resource. Identical market, operational and economic conditions should be assumed in all respects. Hence, the resultant difference between NPV1 and NPV2 should be assignable purely to the quality of human resource asset commanded by the firm.

Another possible criticism could be that this equation ignores the actual expenditure incurred on training and developing its human resource asset. While I intend to cover this aspect in a later paragraph of this paper, I believe that the "value" of a non-tangible asset should be independent of the "cost" incurred to obtain it. The value of human resource asset (or for that matter any asset) lies in its potential to generate future cashflows. It is the quantum of future cashflows, not the expenditure incurred previously, that represents an asset to the company. The two should be kept apart – except

for treatment of extra-ordinary expenditure on special training and development whose treatment is also dealt with in a later paragraph. An example may be cited here of revaluation of fixed assets, primarily land and buildings. Many companies find it helpful to show their land and buildings at market value (placing the gain on revaluation in a capital reserve account) which is quite different from the "cost" of these assets. There is no theoretical or legal logic that declares such a treatment unethical or improper.

NPV Computation Horizon

For the sake of clarity, I may add here that NPV may be computed over a reasonable period, appropriate to the life cycle and nature of industry in which a company operates. For many companies a NPV based on cashflows for the next 10 years may be quite satisfactory; for certain industries (like hotels, cements plants, etc.) cash flow projections may be made for longer periods. And for certain companies that are engaged in rapidly changing technologies; a shorter period like five years may be more appropriate for forecasting cashflows and computing NPV.

How to show the value human resource asset in the balance sheet?

Once the value of human resource asset (HRA) has been determined, I propose that an accounting entry be made in the books of the company as follows:

Debit Human Resource Asset (HRA)
Credit Human Resource Reserve (HRR)

The HRA should be shown in the balance sheet along with the other non-tangible assets while the HRR should be shown as part of the company's equity as a non-distributable reserve, a sort of capital reserve that cannot be paid off to shareholders as (cash or scrip) dividends. This treatment is quite similar to accounting entries made on revaluation of fixed assets - and does not breach any existing accounting standard; nor does it subject the company to any unfair tax disadvantage. However, a suitable note to this effect should be given within the financial statements where accounting policies are disclosed. This note should give the basis and manner of computation of HRA and steps taken to ensure its objectivity.

Human Resource Reserve Aspect

Treating HRR as a part of equity simply reaffirms the right of equity holders to the residual value of company's assets. The recommendation to classify it as a non-distributable reserve is to ensure this reserve will be available to equity holders only at the time of company's liquidation and to prevent unwarranted cash outflows during the life of the company. Just as it would be inappropriate to create a goodwill asset in the books and issue bonus shares in lieu thereof to the shareholders, I hold the view that Human Resource Reserve should remain a non-distributable part of a company's equity. Nonetheless, presence of this reserve will enhance the book value of each share of the company with potential impact on its market value in due course.

Annual enhancement in firm's HRA

Once HRA and HRR accounts have been created, the company should also look at the reasons that give rise to this asset. Clearly, one of the causes of this asset is the expenditure that is incurred on hiring, training and development of employees. I propose that this training and development expense should be divided into two distinct (but not necessarily equal) segments: the normal staff training and development that an average company incurs any way and the special higher expense that a company incurs to ensure the continued higher quality of their employees' performance. Clearly, it is the second T&D expense that gives the company a competitive edge. Measuring such a special expense each year should not offer any problems. One simple way of measuring it would be to deduct the average T&D expense per employee incurred by companies in the pertinent industry from the company's own T&D expense per employee – and multiplying the resultant figure with the number of company's total employees.

$$Z = A - (B \times \text{No of employees})$$

Where Z is Special T&D expense incurred by the company in a particular year

A is total Training and Development expense incurred in the year by the company

and B is average T&D expense per employee of the industry.

Example

ABC Ltd, a manufacturer of domestic use chemicals, has a total of 7,200 employees. During the past year it spent a total of $ 9.2 million on training and development of its human resource. Companies in similar industry spend on average $900 per employee per year on training and development. The "capitalizable" portion of company's training and development expense would be computed as follows:

Z = A – (B x No of employees)
Z = $ 9.2 million – (7,200 x 900) = $2.72 million

Once measured, it is proposed that this expense should be treated as follows:

The normal accounting entry should be:

Debit usual training and development expense account
    Credit cash

This entry should be made in respect of the total expenditure ($9.2 million) made on human resource training and development, i.e. inclusive of normal and special expenses.

In addition, a further entry should be made

Debit HRA
Credit HRR

This entry should be made only for the amount of special, extra-ordinary higher expenditure incurred on HR training and development ($ 2.72 million, computed as Z above) that in the opinion of the company's management gives it an extra edge over the competition.

In this way, the company will not lose any tax advantage on the entire expense incurred on training and developing its manpower, but at the same time, the value of HRA and HRR, will be shown at an enhanced, more appropriate level in the balance sheet.

At least theoretically, it is possible that in any particular year, Z score may be negative for a firm. In such a case the entry should be:

Debit HRR
Credit HRA

with the amount of Z (excess of average T&D expense per employee incurred by the industry over T&D expense per employee x number of employees of the firm.

Periodic review of HRA and HRR

Nothing remains constant in the life of a company, however stable it may appear to be. It is therefore proposed that every company that adopts my proposed HRA/HRR method, should carry out re-assessment of the value of its human resource asset every three to five years, using the same formula, i.e. preparing two sets of projected cash flows.

If the new computation shows a higher positive difference between the two NPV figures, it means the value of company's human resource assets has improved. The quantum of improvement would be computed as follows:

The new human resource asset value (as computed now)
    Minus HRA (and HRR) as currently shown in the balance sheet.

An accounting entry can then be passed enhancing both the HRA and HRR balances.

Debit HRA

Credit HRR (with the amount of difference as computed above)

However, if the new computation shows that the current value of company's human resource asset is less than the one carried in the balance sheet (e.g. due to excessive capitalization of special T&D expenses), the difference should be written off by

debiting HRA and

crediting HRR (with the amount of difference computed above).

This will have no tax implications and no impact on company's income statement and dividends.

An Important Proviso

Entries in the HRA account and the HRR account have been proposed to come from two sources. Firstly, these can come through computation of difference in NPV1 and NPV2, and secondly from capitalizing the extra-ordinary expenditure on human resource training and development. It is proposed that at no time should the balance on these two accounts be larger than the amount computed as difference between NPV1 and NPV2.

In this regard, the following steps are proposed:

1. When the company decides to bring Human Resource Assets into books for the first time, it should simply compute the difference between NPV1 and NPV2 and bring it to books as outlined above. In that particular year, no entry should be made in respect of extra-ordinary expenditure on human resource training and development. This is so because the impact of this extra-ordinary expenditure is already reflected in the difference between the two net present values.

2. In each subsequent year, entries may be made in respect of extra-ordinary expenditure on HR training and development as explained earlier. This will have the effect of altering the balances on HRA and HRR accounts created in the first year. The justification for this entry is that such an extra-ordinary expenditure has improved the value of the HRA since it was last determined.

3. Periodically, say every three to five years, the value of HRA should be re-assessed by computing the difference between NPV1 and NPV2. The balances on HRA and HRR accounts should be brought in line with the newly computed value.

4. At least theoretically a company may re-compute the value of its HRA by computing the difference between NPV1 and NPV2 every year. In such a case, there would be no need to, or justification for, making any entries in HRA / HRR accounts in respect of extra-ordinary expenditure on human resource training and development.

Advantages of HRA/HRR method

I sincerely believe the proposed method for valuation of human resource capital and bringing it into the balance sheet (and therefore in formal financial reporting) merits serious considerations on the following grounds:

a. It enables the company to show its most valuable asset in its balance sheet.
b. It brings the book value of a company's equity closer to its market value.
c. It is liable to give the most appropriate value of company's real HR asset.
d. It is easy to compute and explain to stakeholders.
e. It has no tax implications at any stage.
f. It takes into account the "unusual, special and extra-ordinary expenditure on HR training and development, without reducing company's tax shield.
g. It asks for, or at least allows, periodic revision of the value of HR asset.
h. The proposed accounting treatment does not breach any existing accounting standard, nor does it impair or improve company's reported profits and dividends.

REFERENCES

Bullen, M. L. (2007). Human resource accounting: A useful tool for measurement and management in organizations. *Leadership and Organizational Management Journal*, 5, 85-103.

Flamholtz, E. (1973). Human resources accounting: Measuring positional replacement costs. *Human Resource Management*, 12(1), 8-16.

Flamholtz, E. G , Kannan-Narasimhan, R., & Bullen, M.L.(2004). "Human Resource Accounting today: Contributions, controversies and conclusions". *Journal of Human Resource Costing & Accounting*, 8(2), 23-37.

Flamholtz, E. G. (1979). TOWARD A PSYCHO-TECHNICAL SYSTEMS PARADIGM OF ORGANIZATIONAL MEASUREMENT. *Decision Sciences*, 10(1), 71-84.

Flamholtz, E.G. (1999). "Human Resource Accounting: Advances, Concepts, Methods and Applications". Boston, MA: Kluwer Academic Publishers.

Flamholtz, E.G., Bullen, M.L., & Hua, W. (2002). "Human Resource Accounting: A historical perspective and future implications". *Management Decision*, 40(10), 947-54.

Flamholtz, E.G., Bullen, M.L., & Hua, W. (2003). "Measuring the ROI of management development: An application of the stochastic rewards valuation model". *Journal of Human Resource Costing and Accounting*, 7(1-2), 21-40.

Horngren, C.T. (1972). "Cost Accounting. A Managerial Emphasis". Prentice Hall Inc, Englewood Cliffs

Johanson, U. & Mabon, H. (1998). "The personnel economics institute after ten years: What has been achieved and where we are we going?" *Journal of Human Resource Costing and Accounting*, 3(2), 65-76.

Likert, R.M. (1961). "New Patterns of Management". New York: McGraw Hill Book Company.

Moore, R. (2007). "Measuring how 'human capital' appreciates in value over time". *Plant Engineering*, 61(4), 1-29.

Morrow, S. (1996). Football players as human assets. Measurement as the critical factor in asset recognition: A case study investigation. *Journal of Human Resource Costing & Accounting*, 1(1), 75-97.

Morrow, S. (1997). Accounting for football players. Financial and accounting implications of'royal club liégois and others V Bosnian'for football in the United Kingdom. *Journal of Human Resource Costing & Accounting*, 2(1), 55-71.

Olsson, B. (2001). Annual reporting practices: information about human resources in corporate annual reports in major Swedish companies. *Journal of Human Resource Costing & Accounting*, 6(1), 39-52.

Sackmann, S.A., Flamholtz, E. & Bullen, M.L., (1989). "Human Resource Accounting: a state-of-the-art review". *Journal of Accounting Literature*, 8, 235-264.

Sullivan, P.H. (2000), "Value-driven Intellectual

Capital", Wiley & Sons Publishing

Toulson, P.K. & Dewe, P.(2004). "HR Accounting as a Measurement Tool". *Human Resource Management Journal*, 14(2), 75-90.

Wagner, C.G. (2007). "Valuing a company's innovators". *The Futurist,* 41(5), 7.

CONTRIBUTOR'S GUIDELINES

The management of Jinnah Business Review (JBR) encourages researchers to prepare their articles in accordance with the following guidelines and submit their manuscripts online, preferably. Before submitting your articles online, you will have to transform your article in to our Journal's template; and for this purpose, you can use a specimen provided for the article on our research center's website (www.jbrc.pk) as a base.

AIMS AND SCOPE

Jinnah Business Review (JBR) is the academic research journal of the "Jinnah Business Research Center" of Capital University of Science and Technology, Islamabad (Pakistan). The Journal publishes theoretical and empirical research papers in management, finance, human resource management, marketing and economics, and all other related disciplines of management and social sciences. Its primary focus is on empirical studies with an emphasis on the policy relevance of the findings.

JBR's goals are to inform the academic, business, and public policy communities of the results of relevant current research; to provide expert analysis of current events and reviews of literature in the field; and to add to the business literature material suitable for academics, executives, and professionals.

New innovative concepts, ideas and practices about businesses, industry, and management related disciplines are therefore welcomed. The submitted articles are undergone through a two-tiered review; the first evaluation is carried out by the JBR Editorial Advisory/Working Committee consisting of members from each relevant discipline, and the second review by peer referees and experts working in the related fields in Pakistan and abroad.

INSTRUCTIONS FOR AUTHORS

The Editors welcome preliminary inquiries about manuscripts for possible publication. There is no standard fixed length for articles, but a 15 – 20 A4 pages, with 12-fonts and 1½-line space article would suffice.

Manuscripts should be prepared according to the following style rules (deviations from these rules can cause publication delays).

Content, Length, and Formatting

It is the author's responsibility to make the submitted paper readable, relevant, and interesting, before submission and consideration by referees. This require:

Length

All submitted papers must be formatted according to the instructions below, and must be no more than 15 – 20 US letter pages, as defined earlier. This page limit includes all parts of the paper: title, abstract, body, bibliography, appendices and tables.

Abstract

An abstract not exceeding 250 words comprising the following is required in the following format:

Author's name (s) and affiliation
  a) Email address
  b) Title and abstract content

The abstract content should clearly state:
  a) Research questions and/or objectives
  b) Methodology
  c) Scope of investigation/findings

Full paper

  a) A4 size paper
  b) Margins must be 1 inch on all sides
  c) Font size 12 Times New Roman (body text)
  d) Title, subtitles, abstract and references single spaced; body text 1½ - line spaced
  e) Referencing, graphics & tables will be considered in the total page count.
  f) Do not include page numbers, header & footer.
  g) Maximum 15 – 20 pages
  h) Other formatting details see next section

Tables and Figures

  a) All unessential tables and figures should be eliminated.

b) Tables must be submitted in Microsoft Word table format, and should be created using Times New Roman text, 10 point size. APA-style provided elsewhere must be preferred.

c) Figures must be clearly produced in black and white. All text included in figures should be Times New Roman (10 point minimum).

d) Each table and figure should fit on a single page. Tables and figures may be oriented horizontally (landscape) or vertically (portrait) within the allotted space.

e) Each table and figure should be submitted on a separate sheet and identified with a table or figure number and a descriptive title.

f) Legends and titles on tables and figures must be sufficiently descriptive such that they are understandable without reference to the text.

g) For data not generated by the author(s), the source of the data should be given (in short form) below the table or figure and listed in full in the references.

h) Every table and figure must be referred to in the text. Each table and figure will appear in the journal after its first mention in the text.

File type

All papers are to be submitted as a single MS WORD file, formatted for 8.5" x 11" paper. It is essential that submitted papers print without difficulty on a variety of printers.

Anonymity Requirements for Double-Blind Reviewing

All research papers submitted to JBR will undergo a "double-blind" reviewing process: the program committee members and referees who review the paper will not know the identity of the authors. To ensure anonymity of authorship, authors must prepare their manuscript as follows:

a) Authors' names and affiliations must not appear on the title page or elsewhere in the paper.

b) You must also use care in referring to related past work, particularly your own, in the paper. The following types of statements must be avoided:
'In our previous work [1,2], we presented two algorithms for _____ In this paper, we build on that work by _____'

Footnotes and References

a) Footnote material should be incorporated into

the text whenever possible. If footnotes are necessary, the note number should be typed in the text and superscripted. The notes should be collected at the end of the text as endnotes.

b) References should be (a) integrated into the text in short form and (b) collected together at the end of the article. APA format needs to be followed.

> i) *In-text, citations should be placed in parentheses and noted as follows:*

For book or academic journal - (last name of author[s], date); such as: (Hill, 1988); (Beatty, 1989; Feltham, et al. 1991; Leland & Pyle, 1977).

If no author, cite journal, institution, or publisher. For works with three or more authors, list the first author followed by "et al." as shown above. For multiple citations, alphabetize citations by first author's last name.

> ii) *The full bibliographic information in the references should be composed as follows:*

For book - author[s]. year. book title. edition number [if applicable]. location: publisher.
Such as: Yin, R.K. (2003). Case Study Research: Design and Methods. 3rd Edition. Thousand Oaks, California: Sage Publications, Inc.

For edited volume—editor[s] (ed[s].). year. book title. edition number [if applicable]. location: publisher.

Such as: Nelson, R.R.(ed.).(1993). National Systems of Innovations: A Comparative Analysis. Oxford: Oxford University Press.

For chapter in edited volume - author[s]. year. "chapter title." in editor[s] (ed[s].). book title, pp. chapter page numbers. location: publisher.

Such as: Groenewegen, John and Jack Vromen (1997). "Theory of the firm revisited: New and neo-institutional perspectives." In Lars Magnusson and Jan Ottosson (eds.) Evolutionary Economics and Path Dependence, pp. 33-56. Cheltenham, UK: Edward Elgar.

For article in academic journal - author. year. "article title." journal title. volume number (issue number): page numbers.

Such as: Black, J. S., Gregersen, H. B. & Mendenhall, M.E. (1992). "Toward a Theoretical Framework of Repatriation Adjustment." Journal of International Business Studies 23 (4): 737-760.

The author(s) should make sure that there is a strict one-to-one correspondence between the in-text citations (including citations in footnotes, tables, and figures) and the list of references in the References.

Copy Preparation

JBR accepts manuscripts via internet or post or e-mail. All hard-copy submissions must be accompanied by a disk or CD containing an electronic version of the manuscript. The manuscript should be prepared using a recent version of Microsoft Word and should utilize standard fonts and symbols. Ideally, such a manuscript should be formatted with regard to the following guidelines:

a) Do not use tabs except in tables.
b) Do not indent block quotations.
c) Do not hyphenate or otherwise break words across lines.
d) Use headings sparingly and logically. Do not use more than three levels of headings. Use consistent formatting for each heading level employed.

Copyright Transfer

a) Submission of a paper will be held to imply that it contains original unpublished work and is not being submitted for publication elsewhere.
b) Submission of a paper also implies that, upon acceptance of an article by the journal, the author(s) will transfer copyright of the article to the publisher. The transfer will ensure the widest possible dissemination of information.
c) It is understood that submission of the paper for publication has been approved by all of the authors and by the institution where the work was carried out; it is further understood that any person cited as a source of personal communications has approved such citation.

Miscellaneous

a) Papers must be in English. Use American spelling instead of British (e.g., labor, not labour). Use the American terms such as billion (one billion = 1,000,000,000; one trillion = 1,000,000,000,000), rather than lakhs and crores.

b) Spell out all numbers from one to ninety-nine, unless:

> *i) the number contains a decimal point, e.g., "6.2" and " 0.12"*
> *ii) the number precedes a percent sign or a unit of measure, e.g., "47%" and "16μm"*

c) Italicize and define non-English words at their first occurrence; at subsequent occurrences, format the word in roman (no italicized) type.
d) A short abstract of the paper should always be included with the submission.
e) Please keep a copy of everything sent to JBR, both hard copy and electronic copy, and bear in mind that the electronic version received at JBR will be considered the master copy. The Editors do not accept responsibility for damage to or loss of submitted papers or electronic media.
f) A short note listing each author's institutional affiliation, current address, telephone numbers, e-mail address, and other relevant biographical information, including publications and a photograph should be provided.
g) Any manuscript that does not conform to the above instructions may be returned for the necessary revision before publication.
h) Each author is entitled to one copy of the issue in which his or her article appears.

Note:

Editor reserves the right to amend, abridge or otherwise alter the contents of the paper to make it suitable for publication. However every endeavor will be made not to affect the spirit or effectiveness of the paper.