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# JINNAH BUSINESS REVIEW

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and Moderating Role of Trust



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# Effects of Organizational Justice on Job Outcomes: An Intervening Role of Affective Commitment

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**Abstract.** This research examines a model depicting the association between distributive justice, procedural justice, affective commitment and work outcomes in a special context of higher education institutes. While prior research has extensively used organisational justice and its consequences for work outcomes, this study in particular explores the above linkage in universities of KPK Pakistan. In addition, affective commitment has been employed as a mediator in between the relation of work outcomes and justice types (procedural and distributive justice). Turnover intention and Employee performance are undertaken as pertinent work outcomes. Data from a sample of 150 working staff from selected reputed universities of the country's capital, i.e. Islamabad, were gathered and analysed for regression effects. The findings suggest that justice types (procedural and distributive) positively affect employee performance yet negatively influence turnover intention. Similarly, affective commitment positively mediates the relationship between organisational justice and employee performance but no mediation effect was found in case of turnover intention. Implications of the study are highlighted with a note on future research directions. The article ends with a short conclusion and limitations of the study.

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## 1 Introduction

Since decades, western cultures have investigated Organizational Justice in their organizations; for they have been striving to achieve workplace equality. Not only have they made tremendous strides in this area, but they have achieved an established environment where their employees can now develop fair perceptions about their organizations (Cropanzano et al., 2002). Khalid and Ishaq (2015) posited that efficient and affective employees are essential for organization to achieve its objectives and goals. Many other scholars also advocate the significance of Organizational Justice research (Cropanzano et al., 2002; Janssen et al., 2010).

Closely related to the concept of Organizational Justice is Employee Commitment. Many researchers stress the importance of employee commitment and achievement of organizational goals and objectives (Cho and Treadway, 2011; Porter et al., 1974). Commitment further constitutes of three types: Affective, Continuous, and Normative Commitments (Gellatly et al., 2006; Meyer and Allen, 1991; Meyer et al., 2002; Powell and Meyer, 2004). Of these three, Affective Commitment has been mostly researched as it better gauges the intrinsic drive of employees towards achieving organizational goals in relation to their perception of Or-

ganizational Justice (Colquitt et al., 2001; Price et al., 1976). In Pakistan, however, this area is still under researched and requires special attention from Pakistani researchers. Not many studies come forth which measure the linkage between affective commitment and organisational justice. Studies which measure the effect of Organizational Justice on work outcomes with Affective commitment as a mediator are scarce and limited. The current research aims at filling this particular gap as explained below.

While extant research has been carried out in the past on the significance of work involving organizational justice and work outcomes, such as performance and turnover intentions (Adams and Berkowitz, 1965; Goodman, 1974; Greenberg, 1987), no good work has yet been conducted in the context of Pakistani organizations. It would be particularly worthwhile to test this theoretical link in Pakistani organizations, especially institutes of higher education whether or not it holds true and with what implications.

Furthermore, even though Justice Theory has been well explored by different researchers (Bies and Shapiro, 1987; Erdogan et al., 2006; Griffeth and Gaertner, 2001; Lin and Huang, 2009), few have specifically studied the mediating affect of Affective Commitment between Organizational Justice and Work Outcomes.

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Meyer et al. (2002) posited that of the three types of Organizational commitments, i.e. Affective Commitment, Normative Commitment, and Continuance Commitment, Organizational Justice is relatively strongly correlated to Affective Commitment amongst the three. Yet fewer numbers of studies have tested the intervening effect of Affective Commitment upon the relationship of work outcomes and Organizational Justice. This study is an attempt to explore the above mentioned linkage.

## 2 Literature Review

### 2.1 Organizational Justice

Interest in employees perception of justice, as they perceive their employers and organizations as to how fair they are, specifically in terms of distribution of its resources, began since Aristotelian times (Ross, 1925). But it was not till the mid-20th century, scholars began to research the topic thoroughly. Justice theory, which has been explored by numerous authors, such as Bies and Shapiro (1987); Colquitt et al. (2001); Erdogan et al. (2006); Lin and Huang (2009). Nadiri and Tanova (2010) described the concept as perception of just and fair behaviour on part of the employers as perceived by their employees. Such studies have identified three different types of organizational justice: Procedural justice, Distributive Justice, and Interactional Justice.

Folger and Konovsky (1989) differentiated between distributive justice and procedural justice. According to them the former is related to an employees perceived acceptance and appreciation of the compensation they get for their efforts; that is, how just is the organization in awarding goal/work related efforts. While the latter is related to the employees perception of the fairness and appropriateness of the procedures through which such compensation and awards are determined for such goal seeking behaviour. Though intricately related and somewhat similar, researchers have established that different work outcomes are affected differently by the different forms of justices (Folger and Konovsky, 1989; Konovsky et al., 1987). Some authors point out that their perception may even influence each other (Lind and Tyler, 1988; Miller, 2017; Tyler, 1988). For example an organizations employees may use the outcomes of their efforts as a tool to judge the procedures to be just or not, which in turn may increase or decrease their perception of organizational justice. Another example, as Thibaut and Walker (1975), is an organizations employees even evaluated unjust outcomes positively, because they positively perceived the process by which these were determined to be fair, since their input were taken during the decision making process. Fairness in result is the primary focus of employees when they compare them-

selves with colleagues of similar educational and skill background. Distributed justice can greatly limit employees stress factor (Greenberg, 1990) thereby reducing their turnover intention (Loi et al., 2006).

Bies and Shapiro (1987) and (Colquitt et al., 2001) on the contrary explained the interactional justice is associated more to the employees perception of how their employers treat them. It is determined by the behavioural aspects of the employers, and whether or not they are polite and kind to their employees, and appreciate them. In organizations where employers respect and honour their employees integrity and self-respect, interactional justice is perceived to be higher by employees of such organizations. It results in good management and employee relationships, and has a strong positive impact on work outcome (Al Afari and Elanain, 2014; Bies and Shapiro, 1987). According to Moorman (1991), interactional justice is to be investigated separately from procedural and distributive justice.

### 2.2 Procedural Justice, Employee Performance, and Turnover Intention

Procedural justice has instrumental and non-instrumental effects on procedural justice (Lind and Tyler, 1988). For example, when employees are involved in the process of procedural justice it not only has the instrumental effect on the outcomes of distributions, but also the non-instrumental effect by showing that the organization values its employees, and considers their input valuable. This positively influences employees perception of recognition which enhances performance thus generating positive results. According to Lind et al. (1990) this is crucial for citizenship behaviour of employees. Other studies have also shown that such procedural justice has positive effects on organizational results such as Khatri et al. (2001) and Yusuf and Shamsuri (2006) showing that procedural justice enhances performance.

Consequently procedural justice is deemed negatively correlated with turnover intention (Dailey and Kirk, 1992; Khatri et al., 2001). Exit behaviours such as leaving an organization is contributed to by low job satisfaction (Cotton and Tuttle, 1986; Dalessio et al., 1986; Steel and Ovalle, 1984). It also leads to other neglectful behaviours such as absentees (Gaudet, 1963; Muchinsky, 1977), increased error rate (Petty and Bruning, 1980), and late arrival at work (Adler and Golan, 1981; Farrell and Robb, 1980). On the other hand high job satisfaction leads to commitment to work (Aranya et al., 1986; Ferris and Aranya, 1983), and good citizenship behaviour (Bateman and Organ, 1983; Smith et al., 1983).

*H1: Procedural justice is positively associated with*



*employee performance while negatively associated with turnover intention.*

### 2.3 Procedural Justice and Affective Commitment

As per prior literature, even though procedural justice is positively associated to commitment (Konovsky et al., 1987), it bears no such relationship with job satisfaction. But the opposite is true for distributive justice. Folger and Konovsky (1989) surmised that distributive justice is positively related to pay raise and reward allocation, while procedural justice determines loyalty and trust in a supervisor, as well as organizational commitment; that is, personal outcomes are better predicted with distributive justice, an evidence confirmed by Cropanzano and Folger (1989). They predicted that if employees perceive procedural justice to be fair it will lead to least amount of employee resentment, even if distributive justice is at its low. Therefore, it is predicted that fair perception of procedural justice can predict employees affective commitment better. Hence the second hypothesis is stated as follows:

*H2. Procedural justice is positively associated with affective commitment.*

### 2.4 Distributive justice, Turnover Intention, and Employee performance

According to Cropanzano and Greenberg (1997), unfair and unjust treatment of employees lead to dissatisfaction in such employees, hence results in dissatisfactory work performance; thus employees dissatisfaction with and mistrust in distributive justice outcomes will increase grievances, which will increase turnover. Unjustified, inappropriate rewards system induces stress and dissatisfaction (Schwarzwald et al., 1992). Therefore we proposed the following hypothesis:

*H3. Distributive justice is positively associated with employee performance and negatively associated with turnover intention.*

### 2.5 Affective Commitment, Turnover Intention and Employee Performance

The threefold theory of Organizational Commitment suggests that Affective commitment in comparison to Normative and Continuance commitment, bears a stronger relationship with different forms of Organizational Justice (Meyer et al., 2002; Siders et al., 2001). Positive organisational justice is likely to lead to employees affective commitment and potentially less job turnover. Affective commitment is reflected in many

forms such as overall commitment to the organization, or commitment to a supervisor, or to a work team, etc (Clugston et al., 2000; Meyer and Herscovitch, 2001). The presence of organisational justice results in stronger organizational commitment as according to the reciprocity norm, employees who feel valued will reciprocate the organisation by displaying increased levels of affective commitment (Bishop and Dow Scott, 2000; Settoon et al., 1996).

The decision to leave an organization or continue to work is determined by where an employee stands on his/her commitment to that organization. According to Mathieu and Zajac (1990) and Tett and Meyer (1993) the more employees are committed to an organization the lesser will be their intended and actual turnover. Since there is a positive relationship between organizational commitment and affective commitment, the bleak relationship of low organizational commitment and intended turnover results in similar negative relationship between affective commitment and turnover intention. This means that low affective commitment determines high turnover intention and vice versa. This is also supported by literature on turnover (Becker et al., 1996; Tett and Meyer, 1993). On the contrary, the presence of affective commitment in an organization will motivate employees to stay there, thus resulting in low turnover. Hypothesis 4 is stated as follows:

*H4. Affective commitment is negatively associated with turnover.*

There exists strong evidence about the relation of affective commitment and employee performance. According to Becker et al. (1996) supervisor commitment is the most important aspect of affective commitment when determining the Job Performance of employees. It corresponds strongly to performance as compared to other aspects of performance such as co-worker relationship (Eisenberger et al., 2002). This also results in positive perception of the organization as the supervisor works for the organization and represents it. Therefore affective commitment can be concluded to make a positive effect on employee performance.

*H5. Affective commitment is positively associated with employee job performance.*

### 2.6 Role of Affective Commitment as a mediator in the relationship of Organizational Justice and Work outcome

Prior research suggests there is a positive connection between organisational justice and organisational commitment (Cohen-Charash and Spector, 2001). In comparison to distributive justice, procedural Justice showed a higher significant relationship with organi-

zational commitment (Folger and Konovsky, 1989). In comparison to distributive justice, Procedural justice predicts organizational commitment in an improved manner (McFarlin and Sweeney, 2001). Likewise, Loi et al. (2006) found a more significant relation of procedural justice with that of affective commitment. When the procedures to take major decisions in organisations are fair, that would lead to higher levels of emotional attachment.

It can be conjectured that job satisfaction as one job outcome is considered as a correlate and consequence of affective commitment (Meyer and Herscovitch, 2001). Several studies have utilized theoretical frameworks employing the role of mediator of organizational commitment in the relation of satisfaction and organisational justice. We posit that work satisfaction therefore leads to organizational commitment, in such a manner that work satisfaction is mediated by turnover (Tett and Meyer, 1993). In the same vein, as organizational justice leads to greater affective commitment, it tends to affect intention to turnover and employees performance (Mathieu and Zajac, 1990). It is therefore articulated that affective commitment intermediates the relationship of work outcomes and organizational justice.

*H6. Affective commitment mediated the relationship between organizational justice and work outcomes.*

### 3 Conceptual Framework

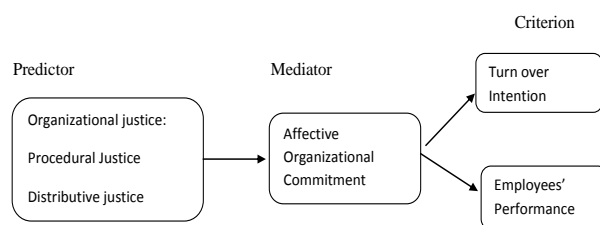


Figure 1: Mediating role of affective commitment in the relationship of organizational justice and work outcomes

## 4 Methodology

### 4.1 Population and Sample

To explore the role of organizational commitment in job outcomes, non-probability sample was taken based on teachers from several institutes of higher education. These constituted selected top-reputed universities in the state capital, i.e. Islamabad of which two were private and two were public. Namely, these universities were COMSATS, Capital University of Science & Technology, NUST, and Quaid-e-Azam University. The first reason behind selecting this sample was that

teaching community is well acquainted with turnover, job performance and is expected to exhibit profound levels of organizational commitment. So they are one of the best subjects for the course of this research. Secondly, our chosen sample has well understood the importance of research for a society therefore they have tried to render fuller attention to the survey and cooperated to the maximum. Thirdly, being part of Islamabad community, it was easier for the researcher to conduct data collection.

The approach employed for the sake of data collection in the field was Convenience sampling, which refers to the process of locating sample as per researchers comfort and convenience. It was a practical as well as economical strategy. Convenience sampling allowed the research team to take appointment from the respective University teachers at their ease and inform them of the relevance of this research. Personal relations and contacts were utilized in order to contacting them to sparing time to participate in the survey. This helped us to generate valid data repository by taking informed consent and valuable times from University teachers. Other methods of generating response rates such as Questionnaire mailing and reminders were at the same time expensive and time consuming.

A total of 240 questionnaires were distributed among University teachers, of which 224 were returned filled in with over 90% accuracy and considered valid for data analysis. Since our respondents were mostly educated, it therefore eliminated the need for translating and re-translating the questionnaire into local language. Because of prior appointments with senior faculty members, the need for a second visit did not largely arise.

In a total sample of 112 respondents the proportion of the male participants was 79 (70.5%) with respect to the female respondents, i.e. 33 in number (29.5%). As regards respondents age, highest number of participants, 33 (29.5%) were in the age group 25-30. 35 respondents fall in the age group 31-35 that shows 31.5% of the total respondents. Moreover, the age group of 35-40 represent 13.4% of the respondents. About 8% lie in the age group 45 and above. Moreover, constitution of sample shows that lecturers comprised the majority of respondents (64%) while professors were only 6 measuring to 5% in the total sample. Moreover, 30.4% of respondents totalling 34 of the total 112 respondents had 1-5 years as tenure. Similarly, people having 1-5 years experience were 22.3% whereas 32% had 6-10 years as total work experience. A clear majority (57%) were qualified with a Masters degree and almost half of the respondents were drawing an average monthly salary of 36000 50000 PKR.

## 5 Results

### 5.1 Correlation Matrix and Reliability

Table 5.1 shows that Pearson Correlation analysis was executed to present the association of independent and dependent variables. It is evident that at  $p < .01$ , there is a substantial positive relationship between affective commitment, justice types, and employee performance while a negative one is found among justice types, affective commitment (independent variables) and turnover intention (dependent variable).

### 5.2 Regression Analysis

Following are the results of regression analysis:

Table 5.2 shows the regression analysis for the effects of procedural and distributive justices on turnover intention and employee performance. Hypotheses were tested using SPSS version 20. We did not take demographics as control variables in our study as they have not proven to substantially affect our selected dependent variables. The regression measures the degree of variation in dependent variable brought about by independent variable. The second hypothesis related procedural justice with affective commitment.

For the first set of hypothesis relating procedural justice and turnover intention, it is observed that  $R^2$  value is 0.31 which means 31% change in dependent variable (turnover intention) due to one-unit change in independent variable (procedural justice). The value is -.56 which indicates that if there is 01% increase in procedural justice, turnover intention is decreased by 56%. The first hypothesis suggesting procedural justice to have a negative relation with turnover intention and positive one with employee performance is supported.

The second condition of regression states that independent variable must be related to the mediator variable. In this case, correlation between procedural justice and affective commitment is .628 depicting that one percent increase in procedural justice causes 62% increase in affective commitment if other variables are controlled. The second hypothesis is thus supported.

The third hypothesis stated a positive relation of distributive justice with employee performance and negatively with turnover intention. The distributive justice ( $\beta$ ) = .204 shows that 01% increase in distributive justice causes 20% increase in employee performance. Furthermore, for turnover intention, distributive justice ( $\beta$ ) = -.649, shows that if there is one percent increase in procedural justice, turnover intention will be decreased by 64% when other variables are controlled. Therefore, the third hypothesis is also supported.

The fourth hypothesis implied a negative relationship of affective organizational commitment with turnover intention. Table 5.2 shows that Regression coefficient for affective commitment ( $\beta$ ) = -.801 suggest-

ing that 01% percent increase in affective commitment decreases turnover intention by 80%. A negative relation is thus established and hypothesis is supported. Our fifth hypothesis stated a positive association of Affective commitment with Employee performance. The data show that regression coefficient for affective commitment ( $\beta$ ) = .181 which implies that a 1% percent increase in affective commitment increases employee performance by 18% provided other variables are controlled. Therefore the fifth hypothesis is also validated.

#### 5.2.1 Regression Analysis between Procedural Justice And Employee Performance

Regression analysis was performed to examine the independent variables (procedural and distributive justice) on dependent variables (employee performance and turnover intention) while affective commitment was used as a mediator. Model of regression is presented as under:

$$TI = \alpha + \beta 2PJ + \epsilon \quad (1)$$

Whereas EP (employee performance) is the criterion variable

$\beta 1PJ$  (Procedural justice) is the predictor variable.

Table 5.3 shows that  $R = .238$  and also that there is 23% relationship between (predictor) and (criterion).  $R^2$  is the coefficient of determination, which is .056. It means that procedural justice (predictor) causes a total variation of 5.6% in criterion variable of employee performance.

From Table 5.4 F value is 6.338 which is significant ( $P \leq 0.05$ ). The significance level means that the regression model is statistically significant, and fit.

Table 5.5 shows that standardized coefficient for procedural justice ( $\beta 1$ ) is .238, which means that if predictor is increased by 1%, employee performance will be increased by 23%, if rest of things are kept constant. The value of  $T = 2.517$  stands significant at .013. This indicates that the alternate hypothesis stating that procedural justice affect employee performance is substantiated.

#### 5.2.2 Regression Analysis between Procedural Justice And Turnover Intention

The regression model used for the relation of procedural justice and turnover intention is stated as follows:

$$TI = \alpha + \beta 2PJ + \epsilon \quad (2)$$

Where TI is the dependent variable i.e. Turnover intention, and

$\beta 2PJ$  is Procedural justice, our main independent variable.

The F value 49.68 is smaller than  $P \leq 0.05$ . This proves that the model stands valid, fit and significant.

Table 5.1: Correlation Matrix and Reliability

	Procedural Justice	Distributive Justice	Affective Commitment	Employee Performance	Turnover Intention
Procedural Justice	(.838)				
Distributive Justice	.713**	(.924)			
Affective Commitment	.628**	.707**	(.854)		
Employee Performance	.238*	.204*	.181	(.684)	
Turnover Intention	-.560**	-.649**	-.801**	-.110	(.950)

\*\* Significance level: 0.01 level (2-tailed).

\* Significance level: 0.05 level (2-tailed).

Table 5.2: Regression Analysis

Predictors	Outcomes							
	Turnover Intention				Employee performance			
	$\beta$	R <sup>2</sup>	$\Delta R^2$	F	$\beta$	R <sup>2</sup>	$\Delta R^2$	F
Procedural Justice	-.560***	.313	.307	49.56*	.238 <sup>a</sup>	.056	.048	6.33**
Distributive justice	-.649 <sup>a</sup>	.422	.417	80.23***	.204 <sup>a</sup>	.042	.033	4.66*
Affective Commitment	-.801 <sup>a</sup>	.642	.639	197***	.181 <sup>a</sup>	.033	.024	3.66*

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

Table 5.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	.238 <sup>a</sup>	.056	.048	.36597

a. Predictors: meanPj

Table 5.4: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.849	1	.849	6.338	.013 <sup>a</sup>
Residual	14.197	106	.134		
Total	15.046	107			

a. Independent variable: (Constant), meanpj

b. Dependent Variable: meanep

The regression coefficient for procedural justice ( $\beta_2$ ) = -.560 indicating that if there is 01% increase in procedural justice, turnover intention is decreased by 56% if other variables are controlled. T value -7.09 is significant at .000. It means that the alternate hypothesis stating a negative relation between procedural justice and turnover intention should be accepted.

### 5.2.3 Regression Analysis between Procedural Justice And Affective Commitment

The regression model for the relationship between procedural justice and affective commitment is stated as follows:

$$AC = \alpha + \beta_3PJ + \epsilon \quad (3)$$

Table 5.5: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.311	.187		17.668	.000
meanpj	.140	.056	.238	2.517	.013

Dependent Variable: meanep

Table 5.6: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	44.988	1	44.988	49.689	.000 <sup>a</sup>
Residual	98.689	109	.905		
Total	143.678	110			

a. Independent: (Constant), meanpj

b. Dependent Variable: meanti

Table 5.7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.998	.485		12.358	.000
	meanpj	-1.011	.143	-.560	-7.049	.000

Dependent Variable: meanep

Table 5.8: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.998	.341		2.928	.004
	meanpj	.849	.101	.628	8.423	.000

a. Dependent Variable: meanac

Where AC is Affective commitment (dependent variable), and

$\beta_3$ PJ= Procedural justice (independent variable)

Table 5.8 shows that the regression coefficient for procedural justice ( $\beta_3$ ) is .628 depicting that one percent increase in procedural justice causes 62% increase in affective commitment if other variables are controlled. T value 8.423 is significant at .000. Again the alternate hypothesis stating a positively effect of procedural justice over affective commitment should be accepted.

### 5.2.4 Regression Analysis between Distributive Justice And Employee Performance

Our regression equation for the relation of distributive justice and employee performance is stated as follows:

$$EP = \alpha + \beta_4DJ + \epsilon \tag{4}$$

Where EP is Employee performance (dependent variable), and

$\beta_4$ DJ= Distributive justice is the independent variable

The Regression coefficient R = .204 or 20% shows that 20% relationship exists between dependent and independent variables. The value of  $R^2 = .042$  depicting that distributive justice causes 4.2% variation in employee performance.

F is 4.664 and it is less than  $P \leq 0.05$ . This proves a regression model that is fit, valid and statistically significant.

Coefficient of Regression for distributive justice

Table 5.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.204 <sup>a</sup>	.042	.033	.37571

a. Predictors: (Constant), meandj

Table 5.10: ANNOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.658	1	.658	4.664	.033 <sup>a</sup>
Residual	15.104	107	.141		
Total	15.763	108			

a. Independent: (Constant), meandj

b. Dependent Variable: meanep

Table 5.11: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.523	.125		28.104	.000
	meandj	.077	.036	.204	2.160	.033

a. Dependent Variable: meanep

( $\beta_4$ ) = .204 shows that 01% increase in distributive justice causes 20% increase in employee performance if other variables are controlled. T value 2.160 is significant at .033. Thus alternate hypothesis stating that distributive justice affects the employee performance should be accepted.

### 5.2.5 Regression Analysis between Distributive Justice And Turnover Intention

The specific regression equation for the relation of distributive justice and turnover intention is:

$$TI = \alpha + \beta_5 DJ + \epsilon \quad (5)$$

Where TI is the dependent variable, and

$\beta_5 DJ$  = Distributive justice is the independent variable

The coefficient of regression for distributive justice ( $\beta_5$ ) = -.649, shows that if there is one percent increase in procedural justice, turnover intention will be decreased by 64% when other variables are controlled. T value is -8.95 and is significant at .000. This proves that the alternate hypothesis will be accepted. The alternate hypothesis was such that distributive justice negatively affects the turnover intention.

### 5.2.6 Regression Analysis between Affective Commitment and Turnover Intention

The regression model for the relation between Affective commitment and Turnover intention is stated as follows:

$$TI = \alpha + \beta_6 AC + \epsilon \quad (6)$$

Where TI is the dependent variable, and  $\beta_6 AC$  = Affective commitment is the independent variable.

Coefficient of Regression for affective commitment is ( $\beta_6$ ) = -.801 which shows that turnover intention decreases by 80% when affective commitment rises by 01% provided other things are controlled for. The T value is -14.04 is thus significant at .000. The alternate hypothesis stands accepted. It was stated as affective commitment negatively affects turnover intention.

### 5.2.7 Regression Analysis between Affective Commitment and Employee Performance

As per the usual regression model, the equation for the relationship of Affective commitment and Employee performance is stated as follows:

$$EP = \alpha + \beta_7 AC + \epsilon \quad (7)$$

Table 5.12: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.104	.286		17.831	.000
	meandj	-.730	.081	-.649	-8.959	.000

a. Dependent Variable: meanti

Table 5.13: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.768	.300		22.535	.000
	meanac	-1.078	.077	-.801	-14.048	.000

a. Dependent Variable: meanti

Table 5.14: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.473	.166		20.923	.000
	meanac	.081	.042	.181	1.906	.059

Dependent Variable: meanep

Where EP is the dependent variable, and  $\beta_{7AC}$  = Affective commitment is the independent variable

Coefficient of regression for affective commitment ( $\beta_7$ ) = .181 stating that employee performance is increased by 18% when affective commitment is increased by 1% with other variables being controlled. The T value is 1.906 and is significant at .059, thus alternate hypothesis “affective commitment (predictor) positively affects the employee performance (criterion)” would be accepted.

### 5.2.8 Results After Introducing Mediation Effects

The above table illustrates two cases:

- When there was no mediator between independent (procedural and distributive justice) and dependent variable (employee performance).
- When there was a mediator between dependent and independent variables.

In the first case, the mean values of two justice types are .118 and .019 respectively when their impact was found on employee performance. However when

mediator was added to the equation, the values of procedural justice and distributive justice were reduced to .113 and .012 respectively. This means with the involvement of mediator, the bond became rather insignificant.

This table also shows two cases:

- When there was no mediator between independent (procedural and distributive justice) and dependent variable (turnover intention).
- When there was a mediator between the predictor and criterion variable

The first case finds that the mean values of justice types are -.323 and -.597 respectively, when their impact altogether was found on turnover intention. But after the addition of mediator in the second stage, the mean values of two types of justices became -.013 and -.196 with no mediation effect. Thus in the two cases, mediation had an effect in the employee performance case but not in turnover intention case.

## 6 Discussion and Conclusion

The current study aimed to explore the association of selected types of justices (procedural and distributive) and how it impacted employees’ turnover

intention and their job performance. Furthermore, it also wanted to find out role of affective commitment as a mediating variable between them. In light of these aims, this study throws light on the negative consequences of organizational injustice on employee turnover and job performance. In consistence with (Cho and Treadway, 2011), this study brought forward confirmations for the association of procedural justice and distributive justice with employees' work outcome specifically their turnover intention and affected performance. Moreover, this study illuminated that employee commitment is significantly affected by procedural and distributive justice. Lastly, in pursuit of filling the research gap, it identified the mediating role of affective commitment between organizational justice and employee work outcomes. This study effectively completed the research objectives and in turn fulfilled the research gap, thus contributing to the extant litera-

ture, as well as holding practical implications for policy development and implementations for Pakistani organizations.

The data were gained from selective reputed universities situated in Islamabad. After a rigorous analysis of the relation among the three different constructs, i.e. justice types, affective commitment and job outcomes, it can be asserted that our postulated hypotheses are mostly positive and significant. Based on the results ( $\beta_1$ ) = .238 and ( $\beta_2$ ) = -.560, the first hypothesis proves to be supportive stating that procedural justice is positively related to employee performance and negatively towards turnover intention. Similarly, the second hypothesis that procedural justice is positively related to affective commitment is also supported. Further, hypothesis 3 is supported such that distributive justice is positively related to employee performance and negatively associated with turnover intention. Hy-

Table 5.15: Coefficients

<b>Model</b>	<b>B</b>	<b>Sig</b>
Constant	3.320	.000
Meanpj	.118	.149
Meandj	.019	.714
After the addition of mediator		
Constant	3.472	.000
Mean ac	.079	.060
Constant	3.303	.000
Mean Ac	.015	.815
Meanpj	.015	.182
Meandj	.012	.840

*Dependent variable: meanep*

Table 5.16: Coefficients

<b>Model</b>	<b>B</b>	<b>Sig</b>
(Constant)	5.717	.000
Meanpj	-.323	.081
Meandj	-.597	.000
After the addition of mediator		
Constant	6.767	.000
Mean ac	-1.081	.000
Constant	6.813	.000
Mean ac	-.909	.000
Mean pj	-.013	.929
Mean dj	-.196	.054

*Dependent variable: meanti*



hypothesis 4 and 5 are also supported by the findings ( $\beta_6 = -.801$  (turnover intention) and ( $\beta_7 = .181$ ). In the end, hypothesis 6 substantiates the mediating role of Affective commitment for employee performance but not supported for turnover intention.

## 6.1 Practical Implication

Although this study offers vast implications, the most important of them to note is that the prevalence of unfair procedures and injustice in organizations have strong negative implications for employees' performance. Furthermore, as was proved by hypothesis number 6, the mediating role of affective commitment demands that the organizations in question should ultimately strive for the prevalence of justice to warrant its employees' commitment, which will in turn work towards enhancing their performance. They should responsibly endeavour to keep minimizing injustice in organizations and to ultimately eliminate them. This study explains the variations in employee behaviour and performance that occur due to justice and affective commitment.

## 6.2 Future Research Directions

This paper holds potential implications for future research endeavours into the topic at hand. It can be further researched with various other related topics such as burnout, organizational stress, employee motivation, and deviance, etc. It also contributes to the extant literature if new concepts are taken into account whose determinants are not previously researched. Studying this model in different contexts and socio-political background may also lend to new streams commitment contributions leading to further consequences of organizational justice. Models with different moderators and mediators should also be taken into consideration. .

## 6.3 Limitation of Study

As the nature of this study is grounded its foundations on cross sectional data. Following this up with a longitudinal design will enrich the findings and explore further avenues of contributions to the antecedents and consequents. Furthermore, the self-reporting method of data collection might be riddled with common method error. Lastly, the mediation difference between the means of procedural justice and distributive, though showing significant results, is still small.

Nevertheless, this particular study has attempted to fill in the gap in the literature on justice and commitment. It has presented interesting findings that attract and invite other researchers for undertaking further research more rigorously. Though, it is not possible to en-

tirely drive out the presence of injustice in workplace, but this study might help relevant personnel to control the outcomes of these constructs in an improved manner.

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# Impact of Co-Worker Support on Project Efficiency: Mediating Role of Team Cohesiveness

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**Abstract.** The Purpose of this study is to enhance the understanding of relationship between co-worker support, and project efficiency in the presence of mediating role of team cohesiveness and moderating role of Project culture. The context of this study is projects that are taking place in Pakistan. Data were collected from 100 participants, who participated in project as a team member, using structured questionnaire. Findings suggested that project efficiency is affected by co-coworker support in a positive manner, in the presence of team cohesiveness. Regression analysis for moderating and mediating variables was performed using Model 4 and 1 of the Process Macros for SPSS presented by Preacher and Hayes. It has been found that team cohesiveness mediates the relationship of co-worker support and project efficiency. Moreover, the project culture plays a moderating role on the relation of co-worker support and team cohesiveness. In the end the implications for project managers and future research are discussed.

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## 1 Introduction

At the core of any project, there are individuals working hard to meet the efficiency levels of project. Project teams can be best positioned for achieving efficiency when they are created with the right mix of individuals (Bell and Brown, 2015). Co-worker support is the care and attention a worker receives from others for their wellbeing (Tews et al., 2013). Members of teams generally have choice in deciding whether or not they want to go beyond their level of duty to help others (Liang et al., 2015). Co-worker support either instrumental or emotional is seen to be more vital in younger team members (Poortvliet et al., 2015). Furthermore, supporting behavior among team members also enhances team cohesiveness (Stephens and Carmeli, 2016).

Team cohesion is the motivational force that sticks team members together. Cohesiveness in teams provides opportunities to learn social, technical, management and creative skills to increase project efficiency (Lindsjorn et al., 2016). Cohesive teams share potential benefits, which leave a positive impact on project goals (Knapp et al., 2015); whereas, project culture enhances team performance through improving skills, positive moods, motivation and communication (Bočková and Škoda, 2014). Moreover, project culture has a great influence on establishing workers cohesion to achieve project efficiency (Zuo et al., 2014).

Projects are built around teams to manage com-

plex goals effectively. Companies should create such a project environment which increases motivation of team members and abilities to engage in future teamwork (Stephens and Carmeli, 2016). In Projects, workers have closer relationships with their co-workers than with supervisors (Meng and Boyd, 2017); therefore, co-worker support is generally related with positive outcomes; which means it is significant to set and maintain such a culture that effectively promotes supportive behaviors that lead to building high level of trust within teams for making teams more cohesive (Gountas et al., 2014).

Much research has been done on how co-worker support can encourage team cohesiveness (Bell and Brown, 2015). However, fewer studies have explored the specific impact that co-workers have in providing resources and support to successfully meet the demands of a complex Project environment (Halbesleben and Wheeler, 2015). The current study is based on the Projects performed under Pakistani context, since previous researches haven't taken this region into account. The supportive behavior among team members can improve the cohesiveness of teams and thus, has been the focus of significant research attention (Knapp et al., 2015). Co-worker support has a different presence under different situations (Halbesleben and Wheeler, 2015); therefore, more research is required to determine situations which demand co-workers support (Meng and Boyd, 2017).

Research shows that there are some employees who

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do not require assistance. However, in case they are assisted, they manipulate it as if the person helping is trying to take credit (Scott et al., 2014). Therefore, it is necessary to highlight such factors that can build an acceptance of support among team members (Lynn et al., 2016). This study aims to make a contribution by identifying such aspects of Project culture which can create more chances of project success, specifically, in organizations which are relying more on teamwork (Liu and Cross, 2016). That is why it is essential to understand the nature of employees personal investment in supporting other employees (Cheruvilil et al., 2014).

## 2 Literature Review

### 2.1 Relationship between Co-worker support and Project efficiency

Over the past few years, significant attention has been paid to enhancing supportive relationships among co-workers (Beehr et al., 2000). Co-worker support is the care and attention a worker receives from fellow workers for their wellbeing (Sloan, 2012). Studies have shown that support among coworkers can be of four primary types (Tafvelin et al., 2014); i.e. affective support which can be referred as emotional or esteem support, informational support which involves providing guidance and advice (Chen et al., 2014), Instrumental support by providing material assistance at the time of specific needs (Deelstra et al., 2003); whereas, social companionship is providing social assistance (Malecki and Demaray, 2003). Affective and companionship support are non-directive support as compared to directive functions of informational and instrumental support (Markham, 1998).

Project efficiency is meeting scope, budget and time goals of the project (Thylefors et al., 2005), which is measured at the completion of project by evaluating the output in terms of budget, time and cost (Shrnhur et al., 1997). The concept of project efficiency and effectiveness are commonly used for measuring different processes of projects (Atkinson, 1999). However, efficiency as compared to effectiveness is paid more attention to in project management literature (Sundqvist et al., 2014). Efficiency is referred as doing things the right way i.e. the level of high efficiency is achieved when whatever is completed, it is performed in the right way, free from defects and no waste of resources (Vitner et al., 2006). Efficiency meets all the internal requirements of project whether it is asset utilization, time management or meeting cost margins (Serrador and Turner, 2015).

Supportive relationships among workers in projects create a meaningful experience for them (Beersma et al., 2003); whereas, negative relations not only affect workers life but also decrease the

chances of meeting project efficiency levels (Beehr et al., 2000). Coworker support bears direct influence on the social settings and workplace for employees. Helping behavior not only arises from personal affiliations but also from functional guidance of workgroup members (Zacher et al., 2014). Project performance is influenced by both instrumental and affective support, proved to be beneficial for driving both intrinsic and extrinsic rewards (Babin and Boles, 1996).

Several researches have shown a positive relation among coworkers support and performance (Carless and De Paola, 2000). Similarly, some have found satisfaction and performance at the highest levels among those employees whose social circles consisted of coworkers (Ducharme and Martin, 2000). Literature has shown a direct positive relationship between coworker support on workers wellbeing and increase project efficiency (Joiner, 2007). So, we conclude that:

*H1: Co-worker support is positively associated with Project efficiency.*

### 2.2 Mediating role of Team cohesiveness between Co-worker support and Project efficiency

Team cohesion is the extent to which the members of the team are united and committed to each other for achieving project goals (Dionne et al., 2004). Team size, support from fellow workers, rewards for success and team accountability are such factors that contribute to team cohesiveness (Carless and De Paola, 2000). Team cohesiveness is the force that binds team members to cooperate and work together for their mutual benefits (Chen et al., 2014). Cooperation involves supporting and sharing the workload for achieving common goals. Cohesive teams are commonly referred to as having group spirit and team morale (Mathieu et al., 2015). Research has shown that cohesion is a group level phenomenon that is achieved by combined efforts of workers not only for their wellbeing but for the growth of entire team (Beal et al., 2003).

Team cohesiveness is highly influenced by helping behavior of workers which leads the team to greater communication and cooperation (Liang et al., 2015). When team members engage in such supporting behavior towards others, this will enhance team cohesiveness (Karasek et al., 1982). This evidence shows that team helping behavior is positively related to team cohesion. For instance, it enhances team members cooperation and willingness to share information and help others (Fruhen and Keith, 2014). Studies indicate that greater coworker support generates greater team communication and cohesiveness (Wei et al., 2014). Supporting behavior is also seen as a useful tool in generating high level of trust and information sharing among

members of the team (Gillen et al., 2002). Cooperative behavior and team cohesiveness are thus the resulting outcomes of trust.

Helping behaviors are important contributors of team effectiveness and cohesiveness (Janz et al., 1997). Meanwhile, when team has more cooperation and trust, it enhances team performance which generates high project efficiency (Mach and Baruch, 2015). Team relations are greatly influenced by members perception and willingness to go beyond the job description. When team members willingly help other members of the team in completion of their job and provide mental support, it contributes to achieving goals (Toh and Srinivas, 2012).

A more cooperative team is more committed to their goals (Hoegl and Gemuenden, 2001). The beneficial effects of team cohesiveness come from aggregated cooperation and commitment of team members (Beersma et al., 2003). At the individual level, cohesion is related to job satisfaction and high performance whereas, at group level it is related with high efficiency levels (Belassi and Tukel, 1996). Cohesion is generally referred to positive outcomes (Wang et al., 2005); such as team performance, timely completion of work, team viability and meeting tough deadlines of the project. Therefore, we hypothesized:

*H2: Team cohesiveness mediates the relationship between Co-worker support and Project efficiency.*

### 2.3 Moderating role of Project culture between Co-worker support and team cohesiveness

Project culture is a combination of values, practices and assumptions that project members share with regard to specified behavior (Wiewiora et al., 2014). Research has shown that project culture has a significant impact on team bonding, supporting behavior, cooperation and effective performance (Aronson, 2015). However, implication of project culture in project management is far complex than in organization (Mach and Baruch, 2015). Because projects usually involve number of experts from various fields who have their own culture and norms of working. They usually face challenges in communicating with diverse nature of employees. (Cooper, 1994). These unique and diverse characteristics of team members make project culture critical to project based work (Mueller, 2014). However, strong project culture influences peoples knowledge sharing, communication and relations.

Various studies provide evidence that cultural values influence helping behaviors among coworkers by creating ways of interactions required for shaping support among team members (Klitmøller and Lauring, 2013). Characteristics of project culture involve em-

ployee involvement programs and teamwork support. Its core values involve loyalty, commitment and participation of team members in order to achieve a common goal (Wang et al., 2005). Project culture acts as a contributor to healthy and supportive relationship among project teams (Fruhen and Keith, 2014). It also generates ways to increase knowledge sharing, providing emotional assistance and work support (Aronson, 2015).

In the presence of good culture, project employees are seen as more dependent upon coworkers for knowledge and support rather than supervisors and technology tools (Wiewiora et al., 2014). Culture exerts a positive influence on generating positive attitudes for helping coworkers (Salas et al., 2015). Workers in the presence of project culture think differently to be cooperative and supportive for resolving conflicts and satisfaction of other members. These behavioral changes come with the traits of a good project culture (Goodman et al., 2001).

Team cohesion is considered as the degree to which project team members transform into a single unit having common culture (Serrador and Turner, 2015). By developing a good project culture, workers are believed to have greater collective understanding and commitment towards project goals (Franz et al., 2016). Culture that promotes supportive behavior and rewards for support, creates high level of team cohesiveness compared to those cultures which do not promote such activities (Gu et al., 2014).

Studies have shown that culture is perceived as an indicator of better communication among diverse nature of employees and providing ways of exchanging information (Carless and De Paola, 2000). Teams that have high level of bonding and trust have high team cohesion. Research suggest that project culture helps in generating accessibility, good relations and team cohesiveness (Toivonen and Toivonen, 2014). Teams with high level of cohesiveness are considered as more effective performers. Meanwhile, team cohesion has a strong relation with the norms and values that the team shared as a part of common project culture (Gambi et al., 2015).

*H3: Project culture moderates the relationship between Co-worker support and Team cohesiveness, so that the relationship is stronger in presence of project culture.*

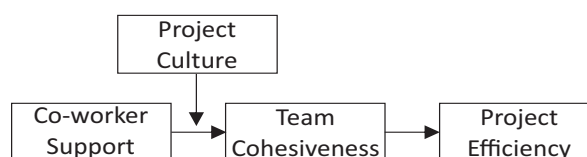


Figure 1: Framework

Table 2.1: Means, Standard Deviations and Correlations

	Variables	Mean	S.D	1	2	3	4
1	CWS	3.6933	.69660	(.748)			
2	TC	3.9525	.81626	.383**	(.758)		
3	PC	3.8763	.68890	.257**	.516*	(.794)	
4	PE	3.5700	1.0843	.304**	.076	.262**	(.897)

N=100 \*\*\*p<0.001, \*\*p<0.01, CWS is Coworker support, TC is Team cohesiveness, PC is project culture and PE is Project efficiency.

### 3 Methodology

#### 3.1 Population and Sampling

The population for current study is workers who worked as a team in projects or who are a part of any team project. For this we have visited some universities and organizations and reach out to individuals who have played a role as a team members on any position in a project and asked few questions before giving them questionnaires to fill so that we can make sure that the sample is relevant and they are part of teamwork or at least they have performed teamwork in any project. The study setting was field study, and study did not manipulate the normal flow of work. It was done according to convenience of users. Convenient sampling technique was used in order to collect the data. The sample consists of 57% male and 43% female. Among them 79% individuals have 1-5 years experience and 17% have 6 -10 years experience; moreover, out of the respondents, 30% had education of bachelors, 40% Masters and 18% MS/MPhil.

The primary data were collected through the help of structured questionnaire. Total 300 questionnaires were distributed to collect data, out of which 150 were received and 120 were useable, so the response rate was 50%.

#### 3.2 Instruments

The scale for Co-worker support consisted of 6 items such as My coworkers really care about my well-being and My Coworker care about my general satisfaction at work adapted from Mossholder et al. (2005). Respondents indicated the strength of agreement to these statements on a 5 point Likert scale whereby, 1 is equal to Completely false and 5 is equal to Completely true. Team Cohesiveness consisted of 4 items such as I feel that I am part of the team and My team works together better than most teams on which I have worked drawn from Jarvenpaa et al. (2004). Whereas, Project Culture is measured by 8 items such as The members of my team: Spent time discussing our teams purpose, goals, and expectations for the project and The members of my team: Talk enthusiastically about our teams progress derived from Carson et al. (2007).

While, Project efficiency was measured using a scale consisting of 6 items adapted from Gopal and Gosain (2010) using a five-point scale (1 = Not at all, 5 = Greater extent).

### 4 Results

The data were analyzed using regression analysis. First of all correlations and reliabilities were calculated to understand the relation between them. As shown in table 4.1.

Results were considered significant at p<0.01. As shown in the table that Project efficiency, the dependent variable was significantly positively related to Coworker support (r=0.383), project culture (r=.262). But was not correlated with Team cohesiveness (r=.076). Project culture the moderating variable is significantly positively related with coworker support (r=.257), team cohesiveness (r=.516). Meanwhile, team cohesiveness the mediating variable is positively related with Coworker support(r=.383).

Table 4.1: Regression Analysis

Predictors	Project Efficiency		
	$\beta$	R <sup>2</sup>	$\Delta R^2$
Step1			
Control Variables		0.25	
Step 2			
Coworker Support	.526**	.134	.109

\*p<0.05; \*\*p<0.01

Regression analysis for Moderating and Mediating variables was performed using Model 4 and 1 of the Process Macro for SPSS presented by Preacher and Hayes (2008). The bootstrapping method generates indirect effect estimation, by including confidence interval of 95%; whereas, a non-zero estimation shows that indirect effect is significantly different from zero at p<0.05.

Regression analysis table for mediating variable presents direct effects, total effects of Team cohesiveness

Table 4.2: Regression Mediation Analysis

Predictor	Effect of IV on M	Effect of M on DV	Direct effect	Total effect	Bootstrapping results for indirect effects	
					LL 95 CI	UL 95 CI
CWS	.2324	.4697	.5757	.5261	.2445	.9070

Note: LL=Lower limit, UL upper limit, CI= Confidence interval, \*\*\* $p < 0.001$ , \*\* $p < 0.01$

ness and Coworker support on Project efficiency also bootstrapping results for the indirect effects. The direct effects fell between 0.2231 and 0.9070; which shows that, zero was not present in the 95% confidence intervals, so the relationship of Coworker support and efficiency is mediated by team cohesiveness.

Table 4.3: Regression Moderation Analysis

Predictors	$\Delta R^2$	F	P
Coworker Support	.0430	6.5754	.0120
*Project Culture			

\* $p < 0.05$ ; \*\* $p < 0.01$

The above table 4.4 shows the value of F, P and change in R square. The p value .0120 is clearly showing the moderation effect.

As per the regression results, the first hypothesis was supported, i.e. Coworker support is positively and significantly associated with Project efficiency as  $=.526$  and  $p < 0.05$ . Similarly, hypothesis two was also accepted which stated that team cohesiveness mediates the relationship between coworker support and project efficiency, as according to the results, zero was not present between 0.2231 and 0.8290 and  $p < 0.05$ . Ultimately, hypothesis three, i.e. Project culture moderates the relationship between Coworker support and team cohesiveness, so that the relationship is stronger in presence of project culture, found support as well at  $p = .0120$ .

## 5 Discussion

Over the years, project teams have been receiving great importance because of their contribution and effectiveness in dealing with increased competition. The basic aim of this study was to enhance the understanding regarding, how coworker support is beneficial for achieving project efficiency. For this we developed a framework, with the help of which we concluded that coworker support somehow, plays a positive role in creating project efficiency. Supportive relationships

among workers in projects create a meaningful experience for them. Helping behavior not only arises from personal affiliations but also from functional guidance of workgroup members. The results of the study have shown a direct positive relation of coworker support and increased project efficiency. So, project managers should be particular and more concerned about motivating workers for developing supportive behavior among them (Hoegl and Gemuenden, 2001).

Coworker support should also be rewarded by the managers in order to make it common in project teams (Bartol and Srivastava, 2002). In projects it is quite difficult to manage teams and make them committed to their work. However, first hypothesis of this study indicated that coworker support is positively associated with project efficiency and after its acceptance, it enhances the focus of project manager on coworker support.

In project teams, there is a strong relationship between cohesion and performance. Team cohesiveness is commonly referred to as the force that binds team members together to achieve a common goal. Whereas, team cohesiveness is a group level phenomenon which is achieved by combined efforts of team members. Results of the study have shown that when team members engage in supportive behavior it will enhance team cohesiveness, which leads to project efficiency. Team cohesiveness not only enhances team members cooperation but it also supports helping behavior among teams. Study has also indicated that greater coworker support generates greater team cohesiveness and project efficiency.

When teams have strong commitment they will help other members of the team in completion of their job for achieving project goals (Toh and Srinivas, 2012). At the individual level, cohesion is related to job satisfaction whereas, at group level it is related to high efficacy levels. Second hypothesis was about mediating role of Team cohesiveness on the relationship of coworker support and project efficiency. Meanwhile, the results have indicated that when project managers focus on team cohesiveness at the group level they can bring high level of project efficiency (Hoegl and Gemuenden, 2001).

It was hypothesized, that project culture strengthens the relation between coworker support and team



cohesiveness. Because by developing a good project culture, workers are believed to have greater collective support and commitment towards project. Culture that promotes supporting behavior and reward for support creates high level of team cohesiveness compared to those cultures that do not promote such activities (Bočková and Škoda, 2014). If we look at the findings then there is a significant impact of project culture; whereas, implication of project culture in project management is far more complex than in organization.

Because projects usually involve number of experts from various fields who have their own culture and norms of working. They usually face challenges in communicating with diverse nature of employees. So, it might be considered that they develop their own perceptions and culture and don't care about project culture (Buvik and Tvedt, 2016). However, when project managers pay more attention towards project culture this makes team members more committed. With the acceptance of third hypothesis it is now clear that culture is such an indicator which brings better communication among diverse nature of employees and providing ways of exchanging information and support (Carless and De Paola, 2000). Teams that have high level of bonding and healthy relationships have high team cohesion.

### 5.1 Limitations and Future Research

Although the study provides some interesting findings regarding how project efficiency can be enhanced through coworker support in the presence of team cohesiveness; however, the study is subject to many limitations. First the data collected don't involve phases of project like initiation, planning, execution, control and closure. Project teams behave distinctively when the work proceeds through different phases of project life cycle. Early phases require more creative work whereas later phases demand technical work; we recognize that it is also possible that the different phases of the project may have different implications regarding the need for coworker support and level of team cohesion. Due to time limit we used convenient sampling technique, however, results would have been different if data were only collected from specific project team members. Another limitation is context of the study. This study was conducted within Pakistan as a specific context; therefore, research is required to determine how accurate the findings of this research are in other countries as well as in other industries like construction and R&D.

Future directions may involve more studies on cohesion and efficiency in project team. We also acknowledge that there can be different alternative models for influence of team cohesiveness and commitment on the relationship between coworker support and project efficiency, so we recommend that future research should be designed to test the dynamic and causal relation-

ship among coworker support, team cohesiveness and project efficiency. The goal of this study was to know, how the presence of team cohesiveness can impact the relationship between coworker support and project efficiency. And to fulfill this goal we tested our model in the same context. By considering the random sample of project team members, we derived considerable results. Meanwhile, different other variables can be used like in place of project efficiency project, effectiveness can also be measured. Knowledge sharing can be used as a mediator. Similarly project teams over time would be more challenging. In addition, future research can be done on the relationship between coworker support and project understanding like task familiarity to explain other project outcomes.

### 5.2 Conclusion and Managerial Implications

Today one of the most important parts of project managers job is managing the project team who are performing the project tasks. Therefore, several practical implications can be drawn from this study for project managers. Findings suggest that the development of supporting relationships among team members should be motivated and encouraged. This will result in strong commitment towards the project. These positive relationships among team members can enhance coworker support within teams, which can lead to project efficiency. Our results show that we need to go beyond the prescribed job requirements and look forward to develop positive and strong sense of commitment to the team. Even though Team cohesiveness shows medium effect on building coworker support for contributing towards project efficiency, this does not mean that team commitment should be ignored.

It is important and without it coworker support is unlikely to occur. If team members have confidence in their fellow workers, their abilities and support they will be more willing to help them to make the project meet all efficiency levels. However, Support among team members needs to be developed within project team settings. This can be done by providing opportunities for team members to work together by helping each other and highlighting the importance of team member commitment and coworker support for reaching project goals. Project managers should introduce such ways that involve more coworker support other than supervisor support. So, that worker can get involved in helping other workers, which leaves a positive impact on project efficiency and can increase team cohesiveness.

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# Investigating Project Success in Context of Interpersonal Conflicts and Culture at Software Houses

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**Abstract.** I.T industry is playing a vital role in the development of Pakistan. Well developed countries are outsourcing their projects to Pakistan due to economical workforce due to which I.T industry in Pakistan is developing day by day. Along with these developments employees in organizations belong to different backgrounds, cultures and experiences which play a role in determining their personalities. When employees fail to accept or understand the differences in each others personalities, conflicts arise in the workplace due to which team environment gets disturbed, having negative impact on projects. This study explores the reasons behind the Task Conflict, Relationship Conflict along with moderation effect of Organization Culture and their impact on Project Success. The study suggests possible solutions regarding how these conflicts can be minimized and how we can minimize the impact of conflicts on projects; in order to increase the project success rate in I.T industry which is too low according to different surveys performed by well known organizations.

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## 1 Introduction

According to an IBM study, only 40% of I.T projects meet schedule, budget and quality goals, so 60% of projects get failed due to overrun of schedule, budget and quality. Employee behavior is one of the key factors that drive successful project management. In today's world, virtual project teams are often co-located in commonplace. In this environment, it is essential that behavior, relationships and culture be well understood by project managers. The main reason behind the failure of projects is interpersonal conflicts between the stakeholders. Some conflicts have negative, while some have positive impact on projects. Interpersonal Conflicts can negatively influence project, even in the wake of controlling the impact of conflict management and resolution (Liu et al., 2011).

In past few years I.T industry has made much more progress. Most of the well developed countries outsource their I.T projects to under developed countries to save money as labor is so cheap in countries like Pakistan. To get projects and maximize revenue project managers and coordinators impose pressure to software developers to get complete the projects completed in very strict deadlines due to which many interpersonal conflicts arise between the development team and management. This study explores the types of interpersonal conflicts i.e. Relationship conflicts and task conflicts along with the moderating impact of organizational culture, which influence the project in many

ways. Commonly found types of conflicts in organizations are Task Conflict, Relationship Conflict and process conflicts (Jehn et al., 1997). There are three types of conflicts (Task Conflict, Relationship Conflict and process conflicts) and four dimensions of conflicts (emotions, norms, resolution efficacy, and importance) in decision taking groups. (Jehn et al., 2008).

A relationship conflict develops when there is disagreement or difference between the development team and project management in software development projects. Disagreement can be work related but mostly this type of conflicts occurs over personal issues which is very difficult to defuse or remove. Past studies indicate that the negative relations between relationship conflict and employment fulfillment and life fulfillment, and the positive connection between relationship conflict and expectation to stop were not huge when social negativity was high (Li et al., 2011).

Relationship conflict has negative impact on project because if it arises between the developers and project managers or between the development team then developer cannot work with passion and lose their focus and concentration; although developers may complete work in time but their work quality will be compromised and quality is the main constraint on which project success depends. Relationship conflicts concentrate on relational connections, task conflicts concentrate on the substance and the objectives of the work, and process clashes concentrate on how the function gets done.

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If relationship conflict is over personal issues then it will badly disturb the environment of team and team loses the concentration and their focus will be diverted towards the issue and work speed will be slower. Relationship conflict was connected adversely to employment fulfillment and life fulfillment, yet emphatically to goal to stop. More critically, Working together and fighting reactions to relationship conflict were contrarily identified with group working and adequacy, while keeping away from reactions to relationship conflict were decidedly identified with group working and adequacy (De Dreu and Van Vianen, 2001).

Task conflict occurs due to the disputes among the team members over allocation of resources, different view over the process and policies that are used to hold on, disagreement over results and analysis of information (De Dreu et al., 1999). Relationship conflict is completely linked with the relationship between task conflict and teams environment and task conflict is not dependent on the team environment. Team members interaction changes the relationship conflicts, i.e. if interaction is more, relationship conflicts are less and if interaction is less, conflicts will be more.

Age, culture and nationality differences do not negatively affect the relationship conflict. If there is an age difference between the members, then relationship conflicts will be more pronounced and the same results will be in case of nationality and culture differences (Jehn et al., 1997). Relationship conflict decreases employee contentment. Quitting the current job ratio increases when both types of conflicts are there in team members and decreases when task conflicts are more than the relationship conflicts between members. The mixture of both conflicts increases the results to leave the job (Medina et al., 2005).

Task conflicts can be unpredictable. If managers choose right person, right place and right time for specific task then chances of task conflict will be less. Managers should manage task conflicts so that it should be beneficial for team and organization alike (Tidd et al., 2004).

Task conflict causes good discussions on problem and streamlines the process. Task conflict occurs in software development when project managers assign multiple tasks to developers and they cannot work with dedication on single task. It sometimes occurs between the quality assurance team and developers when QA team and the developer may disagree on the issue, which is then resolved by project managers, leading to conflict resolution and positively effecting project as quality of project is not compromised due to this conflict.

One of the main causes of task conflict is lack of communication and if teams are globally dispersed then task conflict ratio is high because communication gap increases the ratio of task conflicts. It may have negative impact on project if task conflict occurs it may

delay the deadline of project. Task conflict in groups can be decidedly identified with development. Conflict may have positive impacts on team performance and projects under some specific situations. Task conflict improves the team performance and has positive impact on project (De Dreu, 2006).

Organization culture is about the feelings and it can change the impact of interpersonal conflicts on project success. If organizational culture is about being helpful, processes are defined to communicate with developers, giving respect to their work and efforts then developers will be committed to their goals and it will decrease the impact of interpersonal conflicts on project success; on the other hand, if project managers are not facilitators but taskmasters and developers work with fear then organization culture exacerbates the negative impact of interpersonal conflicts on project success. The excessive use of organizations and diverse culture of team members enforces us to learn how we can increase the team performance and minimize the conflicts occurrence between the team members (Mohammed and Angell, 2004).

Organizations discourage their employees to resolve conflict by negotiations and discussions. For team building process, managers have to solve the conflicts by using different problem solving techniques (Baillien and De Witte, 2009). The immoral and unexpected behavioral problems are adverse for organizations. This problem must be resolved by organizations if they want to progress. Many organizations forecast and develop their processes so that they can handle the conflicts in positive way. Employees are supported in a way so that they feel that management actions are supported and helpful (Appelbaum et al., 2005).

Managers should know how to treat their subordinates so that team environment should not be disturbed. If close supervision is absence in team then team members might perceive negative things about their managers, which results in conflicts (Aquino et al., 2004). Conflict management depends on the situation, type of conflict and cultural norms. Australian people resolve their conflict according to its urgency, while Asian people resolve their conflicts according to the status of other party (Brew and Cairns, 2004).

## 1.1 Problem Statement/Research Gap

In Pakistan there are many outsourced I.T project base companies whom revenue depends on European countries. To meet the strict deadlines, management puts pressure on Project Managers and they transfer that pressure onto the development teams. Due to this pressure, strict deadlines are given to development team and developers have to work extra hours and mostly no reward is given to them for this work due to which many interpersonal conflicts appear between developers and Project Managers. Due to these prob-

lems, focus on work and quality of project will be compromised. Developers cannot work with full concentration. They try to finish their work using shortcuts which will compromise the quality and customer dissatisfaction will be guaranteed and if customer gets angry management always takes action against developers.

Project Managers and coordinators again and again interfere in developers work to know the status of work which diverts the focus of developer, which ultimately creates interpersonal conflicts between project managers and developers due to which project suffers. This study will explore interpersonal conflict types, i.e. task conflict and relationship conflict.

This study explores the Task Conflicts impact on projects which seems to be positive because it may be due to dependencies of tasks, needs of resources or organizational policies and processes, while relationship conflicts are mostly personal clashes between individuals which seems to have a negative impact on projects. This study shows the impact of these two variables on project success and also want to check that how organization culture moderates the impact of interpersonal conflicts on project success.

## 2 Literature Review

### 2.1 Relationship Conflict and Project Success

Differences in attitude and mindset give rise to the relationship conflicts at workplace. In IT industry, people are working as a team, depending on each other, so chances of conflict occurrence is more as compared to other industries. Relationship conflict hampers fulfillment of workers, such that when representatives cooperating have contradictory qualities, convictions and thoughts, individual conflict arises, and laborers' levels of fulfillment reduces (Boz et al., 2009).

Relationships are less negative for task conflict as compared to task and relationship conflicts. The overall performance of group is more negative in case of relationship conflict (De Wit et al., 2012). Software project managers use classical approaches to force system analysts and software developers to get their work done, due to which unproductive task behavior occurs among programmers. In this condition project managers use self-managed control techniques to get the tasks completed (Andres and Zmud, 2002).

Forgiveness minimizes the effect of interpersonal conflicts and manages the situation in better way, reducing the impact of interpersonal conflicts on project. Negative emotions which arise as a result of interpersonal conflicts are reduced by forgiving and may change it to positive impact on project and team (Yseldyk et al., 2009).

In requirement gathering from multiple stakeholders there could be possibility of occurrence of conflicts among them due their different viewpoints, independent documents and difference of thinking due to which relationship conflicts can also occur. To solve this type of conflict start thinking about things in different ways to minimize the conflicts as soon as possible (Van Lamsweerde et al., 1998). In Agile methodology, software quality is higher and team interaction is higher as failure of project is considered failure of whole team and success of project is success of a team in agile methodology so there are fewer chances of relationship conflicts (Acuña et al., 2009). Relationship conflicts between developer and software tester is very common because of the bugs in Software, which developer mostly says that its not a bug and tester says to fix it although both are working to achieve the same goal.

Good decisions are not mostly positively related to task conflict, however cognitive conflict occurs mostly to improve decision quality. Relationship conflict is very hazardous for the projects because when they occur it definitely affects the project and process. Mostly conflicts between team members cannot occur when decision is made through collaboration (Amazon, 1996).

*H1: Task Conflict is positively associated with Project Success*

### 2.2 Task Conflict and Project Success

Task conflict is mostly associated with innovation or invention of new things because everyone thinks differently and new things come out, which is beneficial for the project. On the other hand, researchers mostly focus on prevention of relationship conflict. When interpersonal conflict occurs team members rather than focusing on their task, their focus is diverted towards the conflict and team functioning and work effectiveness suffer (De Dreu and Van Vianen, 2001).

Building up the capacity to deal with conflicts in a gathering in view of an integrative system can be a method for upgrading bunch viability (Marques et al., 2015). Qualities of the conflict, the undertaking, and the group may help task conflict make group execution strife; no examination to date has investigated attributes of group arrangement (e.g., identity) as possibilities of this relationship. This current review's discoveries increment comprehension of how strife works in groups and gives direction to rehearsing group pioneers hoping to abuse the advantages of contention inside groups.

Task conflict is regularly misattributed as being close to home in nature or rationale, and consequently regularly prompts relationship conflict. Aggressive conflict strategies are used as an instrument that connects errand strife to relationship conflict. The after

effects of investigations are just insignificantly reliable with the proposed instrument that forceful strategies assume a part in producing that co-event. Certain affirmations in regards to the part of strategies will require facilitating such research (Simons and Peterson, 2000).

Task conflict prompts relationship conflict using cruel or compelling strategies. There was an imperceptibly critical positive collaboration term between task conflict, which is more tumult, aligned with the idea that task conflict will probably prompt relationship conflict when it is communicated in raised voices than when it is definitely not (Simons and Peterson, 2000).

*H2: Relationship Conflict is negatively associated with Project Success*

### 2.3 Moderating role of organizational culture between task conflict and project success

If team members and managers can understand the conflicts, and also the results of negative feelings, see determination potential, and significance, they can energize open talks of task conflicts and attempt to resolve (Jehn et al., 1997). Organization culture has impact on team members of different cultures depending on intensity of issue (Chuang et al., 2004).

Organization culture attracts, motivates and retains people of different cultures which leads to competitive edge over other organizations and helps in minimizing costs by maintaining the highest quality of human resources. By maintaining a good environment in the organization it helps in problem solving ability of employees and minimizes the conflicts, like task and relationship conflict in organization (Cox and Blake, 1991).

People from different culture tend to resolve the conflicts in different ways, develop different opinions about the output results and be motivated by different ways. Its difficult to maintain centralized management to minimize the conflicts. People of Middle East try to avoid the conflicts before they occur. International management is seriously concerned about how to manage conflicts of people from diverse cultures. They are also thinking to give single task to single person to minimize the conflicts among employees (Elsayed-Ekjiouly and Buda, 1996).

Understanding cultural background and how these effects incline with respect to conflict resolution style may make more noteworthy comprehension and fewer clashes in the work environment, and also in groups on the loose (Holt and DeVore, 2005). This review expects to inspect whether the effect of collaboration on venture execution was directed by the accompanying information class factors: industry division, add up to introduced cost, proprietor control, beginning site, group estimate, many-sided quality, extend sort, and universal

association. Also, this review additionally researched the connections among the venture director's administration style, collaboration, and venture achievement (Yang et al., 2011).

Having small teams in software projects minimizes the occurrence of task conflicts in team members and better results can be obtained regarding the programming and team environment (Dewan and Hegde, 2007). This does not make such aspects impractical because a team typically has less than eight members (Booch and Brown, 2003).

Individualists and collectivists translate conflict styles in a comparable way. They found that the five conflict styles of the double concern model were subsumed under four sorts, however that the things measuring the styles couldn't be produced from the double concern display. We didn't explore the supposition of proportional significance and rather utilized inferred etic scales. A sign that members in our example did not decipher the scales comparably is found in low reliabilities in autonomy (Germany and Japan) and association (China) (Oetzel and Ting-Toomey, 2003).

Task conflicts may enhance a gatherings' profitability and imagination under a few conditions, it can likewise harm gathering individuals' fulfillment what's more, their capacity to achieve accord choices. We consider the ideal way to utilitarian conflict to be the one that amplifies assemble execution and imagination, which limits the expenses to fulfillment and accord making. In any case, bunch pioneers need to deliberately consider what assemble results are generally critical in their specific circumstance, and tailor the ideal clash way to address their necessities (Jehn and Bendersky, 2003).

Team member perceptions related to conflicts they encountered in the work place and their emotional reactions connecting ultimately to their conflict administration modes. These modes help in conflict resolution preferences (Syna Desivilya and Yagil, 2005). During the working managers and top management should have a sight on issues like conflicts and should not lose the sight of facts so that issues are resolved before they become conflicts or relationship conflicts (Amason and Mooney, 1999).

Conflicts in teams are natural as due to conflicts, a decision of team members improves and their decision becomes more accurate. Effective teams know how to manage and handle conflicts between team members which make a positive impact on effectiveness. Less effective teams avoid conflicts or it has a negative impact on effectiveness of team (Amason et al., 1995).

Quality decisions are not always positively related to conflicts although task conflicts occur to improve the decisions while relationship conflicts decrease the quality of decision. If due to task conflict, conflict becomes a relationship conflict, then it impacts the decision very badly (Amason, 1996). Conflict management



changes the task conflict or group outcome relations. When measured alone, task conflict doesn't impact the team performance. Task conflict when supposed to be managed by behavior task conflict may be harmful or useful for team. Task conflicts relationship with team performance depends on the active group who is managing conflicts in team (DeChurch, 2000).

*H3: Organization Culture positively moderates the Impact of Task Conflict on Project Success*

## 2.4 Moderating role of organizational culture between relationship conflict and project success

Organizational members have relationship, prepare, and undertaking related conflicts that can be exceptionally passionate, can have minimal potential for if they are resolved earlier, and can be extremely important the gathering's individuals relationship and process conflicts rapidly. This can be increased if clashes are not brought under control and overseen (Jehn et al., 1997). Relationship conflict is contrarily identified with fulfillment and prosperity of individuals from both open associations and private associations.

Furthermore, the discoveries demonstrate that organizational culture changes the connection between undertaking conflict and individuals' fulfillment and prosperity (Guerra et al., 2005). The probability of culture conflict and coordination disappointments is thought little of, which clarifies why firms go into such a large number of mergers that are bound in any case. Contrasts in culture between this research center firms prompt steady diminished execution for both workers after the merger, and subjects under predicted the degree of this diminish (Weber and Camerer, 2003).

Low project authoritative culture can bring about project failure. Its immediate effect turned out to be considerably more noteworthy than group inspiration! Then again, the nonappearance of fiscal prizes can't bring about venture disappointment; yet this can affect group inspiration and subsequently higher group execution (Stare, 2012).

Organizational culture mediates the relationship between authority styles, furthermore, execution. With an end goal to change, the after effects of a study were broken down and sufficient observational confirmation found to bolster this claim. That is, the consequences of this review demonstrate that administration style is not specifically connected to execution but rather is only by implication related. Interestingly, aggressive and inventive social attributes are straightforwardly connected with execution (as anticipated) while, as opposed to desires, group and bureaucratic social characteristics are not specifically related (Ogbonna and Harris, 2000).

A match between the organization culture and the company's business procedure is related with unrivaled execution. Contingent upon the business' technique, the qualities related with any of the four culture sorts might be related with predominant execution. This is on account of each procedure sort requires distinctive sorts of hierarchical and individual conduct for its effective execution, and culture gives the standards to those practices (Slater et al., 2011).

Both types of conflicts have negative impact on team performance. Conflicts may have positive impact on team performance in specific circumstances. Relationship conflict is unfavorable to team performance and task conflict increase team performance (De Dreu and Weingart, 2003). A soft skill increases the project success rate and if projects are not managed properly it will lead towards the failure. Such skills are acquired through experience and by working with people from different cultures, creating good relationship with team members. The outcome of soft skills is motivated team members, customer satisfaction and meeting stakeholder expectations (Sukhoo et al., 2005).

The status conflict may occur due to the reporting hierarchy or a more legal standing order, for occurrence, may decrease the impact of status conflicts compared to the other types in the organization. Many differences like culture, tasks, internal or external pressure of client or management may be the reason for conflicts between management and team members (Bendersky and Hays, 2012).

Sometimes third party or principal party may endorse or arise the conflicts to increase the quality of decision, to promote affective decision of team members or promote discussions among team members or to promote mutual consensus (Van de Vliert and De Dreu, 1994). Perceptions of intra group conflicts are negatively associated with team performance. Members from different cultures may be uncomfortable and irritate others which may be cause of serious conflicts and disturb the environment and performance of team (Hope Pelled, 1996).

Aggressive conflict has a great negative impact on conflict efficiency. Teams that depend on aggressive conflict were found to reveal low levels of conflict efficiency and reduced team performance. It should be noted, that in the path analysis, aggressive conflict did not considerably lead to low conflict efficiency (Alper et al., 2000).

Relating relationship conflict and risk factors gives us a result that how relationship conflict arises. Some risks are positively related to relationship conflicts (Chang and Zelihic, 2014). Conflict styles convert into major problems later on if not handled on time. Conflicts not only originated in specific circumstances but also in case of people behavior when they face disagreement. The way people respond to disagreement, totally depends on the organization culture or team cul-

ture (Friedman et al., 2000).

Group conflict totally depends on the group members and how they behave when conflict occurs between the members. By understanding the nature of group members we can handle conflicts more appropriately (DeChurch, 2000). The positive relationship between increases in role doubt and return intentions over time is mediated by increases in relationship conflict (Hill et al., 2015).

*H4: Organization Culture negatively moderates the Impact of Relationship Conflict on Project Success*

## 2.5 Research Model

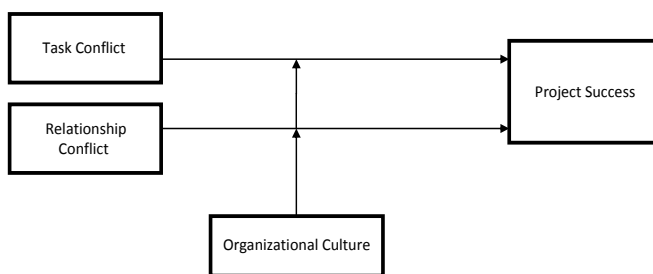


Figure 1: Research Model

## 3 Methodology

### 3.1 Population and sampling

The population of the current study comprises of the software engineers, project analysts, project managers and I.T professionals from private sector software houses. An approximation of the population of software engineers, project analysts, project managers and I.T professionals from private sector software houses was made. The data were collected from sample drawn based on purposive sampling technique.

## 4 Results

Data were analyzed using SPSS and procedures/tests are carried out are Missing values, Frequency distribution, Descriptive statistics, Reliability analysis, Correlation Analysis, Regression Analysis.

Table 4.2 shows that the relationship among the variables Task Conflict, Relationship Conflict, Organization Culture and Project Success. The co-relation between Organization Culture and Relationship conflict is 0.571 which shows the strong relationship between both variables and is significant. The co-relation between Task Conflict and Organization Culture is 0.502 which the strong relationship between both variables

and is significant. The co-relation between Project Success and Organization Culture is 0.582 which shows the strong relationship between both variables but is significant. The co-relation between Task Conflict and Relationship Conflict is -0.614 which shows the strong relationship between both variables and is significant. The co-relation between Relationship conflict and Project Success is 0.572 which is strong and significant as well. The co-relation between Task Conflict and Project Success is 0.589 which shows that the relationship between both variables is strong and is significant.

Table 4.3 represents the multiple regression analysis among the Task Conflict and Project Success and Relationship Conflict and Project Success. In Step 1 the effect of demographics is controlled. In step II value of  $\beta$  shows that 1 unit increase in independent variable (Task Conflict) brings 0.416 points change in dependent variable which is a significant change. R square change value shows that independent variable is bringing 51% change in dependent variable. Same is the case with second independent variable (Relationship Conflict) brings 0.459 points change in dependent variable, which is a significant change. R square change value shows that independent variable is bringing 51% change in dependent variable.

### 4.1 Moderated Regression Analysis

Table 4.4 shows the moderating role of Organization Culture.  $\beta$  value is 0.381 which means that 1 point increase in organization culture strengthens the relationship of Task Conflict and project success by 0.412 points. In step III when impact of interaction term is observed on project success, it shows that interaction term brings a significant change in project success. So the above table leads us to the result that there is a clear moderation effect of organization culture between task conflict and project success.

Table 4.5 describes the moderating role of Organization Culture.  $\beta$  value is 0.416 and R square value is 0.438. In step III when impact of interaction term is observed on project success, it shows that interaction term brings no change in project success and this result is non-significant as well. So the above table leads us to the result that organizational culture does not moderate the relationship between relationship conflict and project success.

## 5 Discussion and Conclusion

The current focus of the study was to explore the relationship between task conflict, relationship conflict, organization culture and project success and moderated model was used. As the purpose of this study was hypothetical deduction so regression analysis was used to check the impact of independent variable on

Table 4.1: Reliability Analysis

Variable	Cronbach's Alpha
TC	0.732
RC	0.746
OC	0.721
PS	0.746

*N = 198 TC = Relationship Conflict RC = Task Conflict  
 OC = Organization Culture  
 PS = Project Success*

Table 4.2: Correlation Analysis

	1	2	3	4
1. Organization Culture	1			
2. Relationship Conflict	.571**	1		
3. Task Conflict	.502**	.614**	1	
4. Project Success	.582**	.572**	.589**	1

*\*\*.* Correlation is significant at the 0.01 level (2-tailed).  
*N=198*

dependent variables and to find out the possible moderation. Hypothesis one hypothesized that Task Con-

Table 4.3: Multiple regression analysis among Predictors and Outcome

Predictors	Project Success		
	B	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1			
Control Variables		.016	
Step 2			
Task Conflict	.416**		
Relationship Conflict	.459**	.510	.494*

*p < .05, \*\* p < .01, \*\*\* p < .001*

Table 4.4: Moderated regression analysis

Predictors	Project Success		
	B	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1			
Control Variables		.018	
Step 2			
Task Conflict	.381***		
Organization Culture	.329*	.412	.394
Step 3			
TC*OC	.295**	.516	.104*

*p < .05, \*\* p < .01, \*\*\* p < .001*

Table 4.5: Moderated regression analysis

Predictors	Outcomes (Project Success)		
	B	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1			
Control Variables		.018	
Step 2			
Relationship Conflict	.416***		
Organization Culture	.328*	.438	.420*
Step 3			
RC*OC	.175	.586	.148

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

flict has a positive impact on project success. Literature review and results extracted from the data collected are aligned with the previous studies. Results are aligned with the authors who reported a positive impact of task conflict on projects. In private sector organization or profit seeking organizations task conflict doesn't negatively affect on workers satisfaction where achieving goals are important for team. In this situation, team members might discuss and give their view point to complete the specific task which would be beneficial for project and team members as well (Guerra et al., 2005). Teams learn more when there is a conflict on tasks between members and team, learning is less when members are highly agreeable (Ellis et al., 2003).

Task Conflicts in software houses is common problem and it has mostly positive impact on projects as in response to task conflicts discussions and meetings take place which are beneficial to projects. Assigning some task to a member who is not expert in that domain as every developer has expertise in different domain so assigning task to a member who is not eligible to completing that task in time as other member has more knowledge about that task can be a cause of task conflict between team members. May be discussion will occur between the team members to discuss that who can deliver this task in better way. While handling the task conflicts project managers should set the priority of task because on the basis of priority, task conflict is handled to whom this task is given, who can deliver this task within deadline.

In hypothesis H2 we hypothesized that Relationship conflict has a negative impact on project success. The results of this study correlate with the Maturity and Immaturity Conflict Theory which suggests that sometimes employees are given very narrow responsibilities due to which they cannot perform according to their skill set due to which they become frustrated and conflicts arise between management and employees.

Literature review and results extracted from the data collected are aligned with the previous studies

that relationship conflict has negative impact on project success. De Dreu and Weingart (2003) in his study concluded that when relationship conflict occurs team performance and team member satisfaction are at risk and conflict resolution efforts are needed to resolve conflicts to minimize the risk level. van Woerkom and Van Engen (2009) in their study reported that relationship conflict is negatively associated with team performance and team learning activities.

Difference of personality between the employees is the main cause of relationship conflict. Employees in organizations come from different background, culture and experience, which play a role in shaping their personalities. When employees fail to accept or understand the differences in each others personalities conflicts arise in the workplace due to which team environment gets disturbed, negatively affecting projects. For example if an employee has a straight forward personality, that results in his speaking straight forward regarding what's on his mind but the time is inappropriate it may hurt others feelings which may result in personal conflicts. Similarly, to personalities differences of values may impact the work it usually occurs when co-workers fail to accept the difference of values then they will insult each others character and experience.

In hypothesis H3 this study hypothesized that Organization Culture Moderates the Impact of Task Conflict on Project Success. Results and literature review are aligned with hypothesis. Chuang et al. (2004) in their study revealed that in diverse culture where employees are given respect and value to their opinion and team building activities are carried out has positive impact on teams performance. Guerra et al. (2005) in their study examined the moderation effect of task conflict and worker affective reaction. According to them culture moderates the effect of task conflict and workers affective reaction.

In software houses where organization culture is helpful and opinion of employees is given respect and task conflicts are resolved through discussions

are more productive and employees work in this environment with more dedication. Organization culture is about the feelings of developers. Continuous communication and cooperation help in workspace is most important thing and task conflicts can only be resolved through communication which leads the software projects toward success.

In hypothesis H3 this study hypothesized that Organization Culture Moderates the Impact of Relationship Conflict on Project Success. Results of this study have rejected this hypothesis. Boz et al. (2009) in their study suggested that organization culture plays a role to handle relationship conflict which has negative impact on daily work practices this is because employees who perceived high relationship conflicts think negative about the organization and activities performed in the workplace. Ting-Toomey et al. (1991) in their study suggested that cultures have impact on conflicts.

Main thing is that different countries have different cultures and according to countries organization cultures vary accordingly. Similarly, organization culture varies from organization to organization. The results of Hypothesis H4 are totally opposite to the studies conducted before, which is innovative in this study. It may be because relationship conflict is mostly between two individuals and doesn't have any dependency on the organization culture so this study rejects the hypothesis H4 in analysis. People mostly don't show their personal conflicts on workplace so it doesn't impact the projects. Mostly organizations do not go in depth of the relationship conflict and culture of resolution of personal conflict is not developed due to which employees do not show their personal conflicts. Mostly people think that escalating the relationship conflict to top management will be insolent for them due to which if organization culture is conflict resolver they didn't get to the conflict.

## 5.1 Limitations of the Study

Some of the possible limitations also exist in this research like other studies. First, data were collected cross sectional from a very few organizations, so the total time allowed for the study was not sufficient to reach all possible respondents. Secondly, since data comprised of all variables were collected from self-reported and self-administrated questionnaire which at respondents end may lead towards self-serving bias. It is also expected that there might be manipulation and exaggeration in data, during data collection phase, resulting in wrong statistical support of the study.

## 5.2 Recommendations

Project managers should encourage employees to pay attention to each others views and give respect to others opinion. Hold training sessions to educate people on how to listen and communicate effectively. Man-

agers and executives should open the doors for everyone with problems so co-workers can openly discuss or share their problems with them to solve them. You can give training to employees to resolve conflicts by themselves. It will build a self confidence in them to resolve their personal and workspace conflicts effectively. Help your staff to build a positive environment in team so that they know each other and feel more comfortable while working with each other. Project Managers can significantly improve their team performance through team development process. Managers should treat every individual fairly.

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# Impact of Behavioral Biases on Investment Decision Making with Moderating Role of Financial Literacy

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**Abstract.** The objective of this study is to examine the Impact of Overconfidence bias and Herding bias on Investment Decision Making with Moderating Role of Financial Literacy. The population was Investor, Employee and Graduate Student. A sample of 200 was selected using convenience technique. Data were collected through structure questionnaire adopted from different papers. Correlation and Regression analysis were performed to examine the result. The Results show that overconfidence bias and herding bias have a positive impact on investment decision making and Financial Literacy has positive impact on investment decision making. Based on the results and discussions of the study findings as well as the limitations, theoretical and practical implications of the study have been provided.

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## 1 Introduction

Standard Finance, also known as Traditional Finance, is based on the number of theories or principles and also several studies conducted in many different countries consider that the investor is rational because he makes the decision to invest based on all available information. Behavioral finance is the new field that seeks to combine the theory of behavior (aspirations, cognition, and emotions) and cognitive psychology. It explains why investors make rational financial decisions in the stock market.

Investment is not an easy process, since the assumption is that investors always expect to maximize returns, although not all investors are so rational (Sukanya and Thimmarayappa, 2015). The investment is mainly influenced by a large number of psychological and emotional factors (Sukanya and Thimmarayappa, 2015).

There are so many factors that affect the behavior of investor in stock market in many ways; some of the factors are investment time period, other investor/participant standard performance and the presence of instability and conjecture in the stock markets (Chang et al., 2009). Some investors invest in stock market with some planning and some invest without planning in order to get more interest that will make them rich overnight. There are number of options available to them either to buy a stock of company based on available essential information or on the suggestion of broker or other investors. On the other hand investors invest on the basis of their available information, finan-

cial resources and time period (Muhammad and Abdullah, 2009).

Pompian (2012) reported that behavioral biases refer to the propensity to make decision that result in unwise financial decisions due to cognitive decline and/or emotional impact. There are so many prejudices in human psychology (Shefrin et al., 2010). Lin et al. (2011) suggested that lack of technical expertise are the result of behavioral biases and he thinks that investors can make better investment decision based on their ability and expertise. According to him, investors rational decision making is influenced by number of behavioral biases such as disposition effect, herding bias, and overconfidence bias and so on. These biases affect individuals the way they often do it in a foolish way, often ignoring common ideas about risk aversion and making speculations and predictions they can anticipate (Patel and Sewell, 2015).

Investors profile determines each investment statement and behavioral biases manage through effective ways (Pompian, 2012). Financial literacy also affect investor decision making Financial literacy is the ability to understand how money works in the world: how someone can earn or make it, how that person manages it, how he/she invests it (turn it into more) and how that person donates it to help others (Giesler and Veresiu, 2014). Financial literacy with respect to gender, work experience, class and education is different.

Although there are many reviewed studies that contribute to the development of behavioral preferences among investors, most of these studies have focused on the developed countries, such as the United

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States, the United Kingdom and Europe. Behavioral biases affect more Asian investors as contrast to European investors (Yates et al., 1997). Some studies have been carried out in Pakistan to develop the effect of behavioral biases in investment decision making using other variables as moderating or mediating variables and their results contributing to knowledge. Financial literacy is an important factor that is no longer debated in Pakistan, where most people do not have financial information.

There are few researches conducted on this issue that indicate financial literacy is extensive and people have lack of information, even regarding basic economic principles (Lusardi and Mitchell, 2011), National Council of Economic Education (NCEE, 2005), and (Hilgert et al., 2003).

In Pakistan, many people do not have financial knowledge because the investor has a lack of financial knowledge and does not have the necessary technical skills to invest in stocks, and the intermediary takes advantage of this deficiency to manipulate investors. So there is a need to study the individual investor behavior that helps to establish financial counseling services and establish policies for effective and secure financial systems.

The purpose of this study is to fill the gap in literature analyzing the situation and providing empirical evidence on the relationship between behavioral biases and investment decision making with the moderating role of financial education. Another objective of the study, in an unstable situation in Pakistan, is how investors behave in their investment decisions and how such behavior affects the performance of investors.

## 2 Literature Review

### 2.1 Investment Decision

Efficient market is the market where average returns cannot be greater than what are warranted for its risk despite whatever investment strategy is applied (Barberis and Thaler, 2003). The concept of behavioral finance expanded in the mid of 1980s (Shefrin and Statman, 1985). This is a new field where psychology combined with theories of traditional finance that explained in a better way of human irrational financial decision (Shefrin, 2002). Investment decision can be improved or easily understood by investor when the concept of psychology was introduced in traditional finance. It also helps the economist and financial decision takers to predict the unforeseen hurdles and occasions.

The decision making process is prescribed as the definition of an objective, the exploration of an alternative, the realization of a cost-benefit analysis and, ultimately, the choice of the lowest-cost option. Mod-

ern economist assumes that there are two rational ways either people make decisions depending on expected utility theory and fair forecasting of future. But some economist stated that rational decision making of people is not acceptable. In the era of Milton Friedman, leading economist accentually suggested asset prices determined by rational investor. According to him financial market can be better defined with the introduction of human. With the passage of time, theory improved by behavioral finance by analyzing the behavior of human in financial market.

There are many factors such as investor demographic factor, investor types and level of risk tolerance that help the investor regarding financial decision making (Harikanth and Pragathi, 2012). Investment decisions have become very important because, the main objective of an investor is to make a good decision and earn maximum profits. But some investors rely on their personal judgment while others make decisions based on education and evidence.

### 2.2 Overconfidence Bias and Investment Decision Making

Another measure of risk is when people consider themselves better and superior relative to others (Larrick et al., 2007). Sometimes people over value their ability and sometimes undermine it (Malcolm S, Forbes). Investors overestimate their skills and abilities and underestimate the control of events. The overconfidence bias leads to market inefficiency due to erroneous pricing and excessive instability (Khurshid, 2012). Those investors, who are overconfident, invest more excessively in market because they do not have an idea of financial market and lack of information (Fuentes et al., 2014). Portfolio of that investor will always be less diversified. There are two main implications of overconfidence with respect to the investor's point of view, one is the omission to generalize information and the other is to do additional operations because of this failure (Shefrin and Statman, 2000).

Overconfidence is a well-established and common misconception that makes people trust on their knowledge and skills too much, and ignores the risk associated with investing. Studies in this area have explained how overconfidence skews excessive rational influences the behavior of decision making. Overconfidence bias positively affects the relationship of investor type and their decision (Zaidi and Tauni, 2012). In Pakistan investor decision making is strongly affect by overconfidence bias (Khurshid, 2012).

*H1. Overconfidence bias has positive and significant impact on investment decision making.*

### 2.3 Herding Bias and Investment Decision Making

Herd behavior describes how individuals in a group can act collectively without centralized direction (Braha, 2012). Herding refers to the situation where rational people begin to behave irrationally to imitate the judgments of others while making decisions. There can be many reasons why herd behavior is exposed in different types of investors. Rational decision-making is based on the logical consistency of decision-making rather than the form; therefore, in decision making human emotions and intuitions play an important role. Simple way as rational choice is to select the preference from ranking (Samuelson and Zeckhauser, 1988).

Under the certain or uncertain condition, preference affects the decision of investor alternative according to rational choice model. Institutional investors have less graze pasture as compared to individual investor (Lee et al., 2002). In this age of uncertainty, it is better to copy other information and transmit it, so basically investors do the same, and someone follow the managers of the company when they sell shares and then to invest and when they buy weak stocks and with less educated investor I also do the same (Persaud, 2000).

The herding bias is when the investor follows other investors in making investment decisions, therefore, these results confirm that investment decision making is positively influenced by herding bias. Malik and Elahi (2014) claimed that investment decision is positively influenced by herding bias. In addition, some significant studies conducted on herding bias that affect the investment decision making (Grinblatt et al., 1995; Lakonishok et al., 1992; Wermers, 1999).

H2. Herding bias has significantly and positively affects the investment decision making.

### 2.4 Financial Literacy and Investment Decision

Knowledge of basic economic and financial concepts, as well as the ability to use that knowledge and other financial skills to manage financial resources is effective for a lifetime of financial well-being (Hung et al., 2009). Financial literacy is the ability to understand how money works in the world, how human beings can earn or make money and their ability to manage it in effective way to get more returns from investment and sharing with others (Giesler and Veresiu, 2014). Financial Literacy refers with respect to demographic, education and work experience. Men have greater financial knowledge with respect to women and the same case in the remaining cases more work experience, more education and upper class rank have more financial knowledge compared to less work experience, less education

and lower class rank.

Personal confidence and context significantly affect the investment decision of investor and the availability of financial information play a vital role in it (Widowson et al., 2007). People of USA have greater financial literacy as compared to Asian countries (Chen and Volpe, 1998). There is a significant relationship between financial literacy and monetary amassing because people who have information about how to take an advantage of the equity surplus on investment. The availability of financial knowledge is an important factor that affects the investment decision (Merikas et al., 2003). To invest profitably, financial literacy should be improved (Agnew and Szykman, 2005). However there are different studies that examined that financial literacy is important and affect the investment decision positively.

H3. Financial literacy has significant and positive impact on investment decision making.

### 2.5 Financial Literacy as moderating role on Behavioral biases and Investment decision

As mentioned above, it is crucial to analyze behavioral biases and financial education to understand the real behavior of investors. Many studies show that both financial education and behavioral prejudices affect the behavior of investors. However, the relationship between these two concepts, which has a crucial role in financial decisions and the behavior of investors, has not been investigated in depth. There are several academic works in the field of cognitive ability and they are more likely to suffer biases and make investment mistakes (Bucher-Koenen and Ziegelmeyer, 2011).

There are several studies on behavioral biases and financial literacy that show different results with respect to the relationship between financial knowledge and behavioral biases that may be due to several factors. With reference to the relationship between the level of financial knowledge and investment decisions, it has been observed that highly literate investors prefer and use different techniques when making an investment decision than investors with low literacy. Highly literate investors prefer to use financial publications, while low literacy investors convey more about the advice of family members, friends and brokers. Because of this, investors show above all behavioral bias because they were illiterate, so they could not make decisions and do the same as other investors, when other investors sell the shares they sell when they look for little benefit in stock. Discard it and do not wait for further increase in the price, since they show excess confidence while they collect the actions and make wrong

decisions (Hassan Al-Tamimi and Anood Bin Kalli, 2009).

*H4. Financial Literacy has Moderating role in relationship between overconfidence bias and investment decision.*

*H5. Financial Literacy has Moderating role in relationship between herding bias and investment decision.*

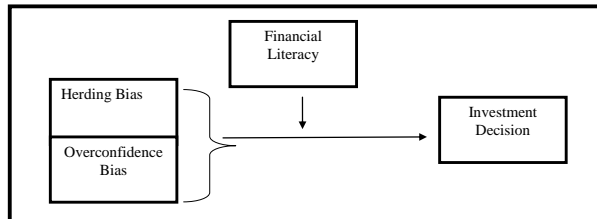


Figure 1: Conceptual Framework

### 3 Methodology

This section contains the complete research design about population, sample size and sampling producer, data collection technique and analysis of data.

#### 3.1 Sample and Data Collection

The purpose of this study to review the impact of overconfidence bias and herding bias on investment decision making with the impact of financial literacy as moderating role. In order to achieve the above objective quantitative method is used for data analysis. The population was Investors, Employees and Graduate Students who invested in Islamabad stock Exchange. The study was the cross sectional study in which data were collected once across a population through sampling. Our research was a quantitative research in which we have done non probability sampling. Structure questionnaire was used by using convenience sampling technique, because through this technique researcher is able to gather a large amount of information easily at very low cost. The respondents participated voluntarily and were ensured that their answers will be confidential and will only be used for this investigation. Rea and Parker (2005) proposed that with a margin of error of 5% and a confidence level of 95%, a total of 200 sample sizes were selected and the questionnaires distributed. Out of the 200 questionnaires distributed, 168 were received and 19 questionnaires were filled out incorrectly and 149 were usable for this investigation. Then, the rate of respondents is 75%. The questionnaires were distributed by hand among different investors, brokerage houses and organizations, and some users collected online data that had access to the Internet.

As mentioned above, the total response of the sample size was 149. One of the main portion of the sample, the male were 123 (82.3% of the total sample size) and 26 were women, which was 17.4%. 55.7% of respondents who were young and between 18 and 25 years old. 34.8% of the respondents who were between 26 and 35 years old and only 9.5% fall in the section from 36 to 45 years. As the majority fall between 18 and 25 years, most of the respondents were not married, was 69% of the total sample size and 30.6% of the respondents were married and only 0.6% were divorced. 55.1% of the total sample had a master's degree. 3.2% had a Ph.D. degree. 57% of the participants were those who took stock courses, while the rest of 43% answered that they did not have a stock market. 34.1% of the participants had investment less than of Rs. 2 lac, 32.3% had more than Rs. 2 lac but below Rs. 4 lac, 22.8% had more than Rs. 4 lac but less than Rs. 10 lac, 4.4% had more than Rs. 20 lac but below Rs. 30 lac, 3.8% had more than Rs. 30 lac and only 0.6% had more than Rs. 10 lac but below Rs. Investment of 20 lac in 2017.

#### 3.2 Measures

A structure questionnaire composed of five main parts was used to collect the necessary data. The first four sections were related to our main study that explains the effect of two independent variables: herding bias and overconfidence bias, a dependent variable that was an investment decision, while financial literacy plays a moderating role in this study. The last section recognizes the age, marital status, education, income, experience, and current level of investment as demographic characteristic of respondent. The first four sections of the questionnaires contain nineteen (19) items. The five-point Likert scale was used to measure the relationship between dependent and independent variable where 1 = totally disagree and 5=for totally agree according to the first 10 questions. For the next 9 questions, four options were given to accept and reject, and the results were being finalized on this basis.

Out of these nineteen (19) items that were used in the questionnaire, the dependent variable investment decision scale has 3 items adopted from Le-Phuoc et al. (2011). A sample element was "You feel satisfied with your investment decisions in the last year (including the sale, purchase, selection of shares and the decision of the volumes of shares)". The scale contained 7 items of the first independent variable, which was the herding bias, was adopted as suggested by Kengatharan and Kengatharan (2014). A sample of elements was "The decisions of other investors to buy and sell shares have an impact on their investment decisions." The last independent variable scale was on the overconfidence bias that had been adopted from (Pompian, 2012) and an article on the sample of this scale was "How much control do you think you have in choosing investments

that will exceed the market"? And the scale for financial literacy as the moderator was adopted from Lusardi and Mitchell (2011) and a sample element of this scale was "Suppose you have Rs.100 in a savings account and the interest rate is 2% per annum. After 5 years, how much do you think you would have in the account if you left the money to grow?"

In order to check the internal consistency between factor reliability analysis was used and measured with the help of Cronbach alpha. It is used as reliability to distinguish the relationship of different factor from each other. The upper scale 5 is considered an acceptable measure of reliability analysis. In our study we had 4 different variables with 28 elements. The Cronbach's alpha of all these variables was above 6, which means that there is strong internal reliability between the elements. For 3 investment decision points, the scale was observed .748, for 7 items of herding bias was .635, for 3 articles of financial education was .92 and the rest of 6 articles belonged to overconfidence bias observed for these items was 0.773.

### 3.3 Control Variable

The current study used some control variables related to the demographic data of the investors such as gender, age, income, and investment of the current year, investment of the previous year and duration of the visit to the stock market as a control variable when performing the test of regression. These variables were found from ANOVA since we observed  $P < .05$ , so it suggests a significant effect of these variables in independent and dependent variables.

## 4 Results

Table 4.1 shows mean values, standard deviations and Pearson correlations between variables studied. Mean and standard deviation of herding bias is 3.20 and 0.247 and, Over-confidence bias is 2.53 and 0.167, Investment decision is 4.19 and 0.649 and financial literacy is 1.93 and 0.259. Pearson's correlation is used to describe the relationship between independent variables (herding bias, disposition effect and overconfidence bias), moderator financial literacy and dependent variable investment decision.

### 4.1 Regression Analysis

Table 4.2 explains the effect of the independent variable (over-confidence bias and herding bias) with the moderator (financial literacy) on the dependent variable (investment decision-making). We performed different linear regression analyses to test the hypotheses. For this purpose, table 4.2 is divided into three steps. In the first step, gender, age, income, total time

dedicated to the stock market, investment for the current year and investment from the previous year were entered as control variables. In step 2, the result shows that there is a positive effect of the overconfidence bias in investment decision making ( $\beta = 2.09 * p < .05$ ). Hypothesis 1 (Positive and significant impact of overconfidence on investment decision making) is statistically significant. Hypothesis 2 (Investment decision making has positively and significantly impact by herding bias) is not compatible because the result shows a positive impact of herding bias on investment decision making but that relationship is non-significant ( $\beta = 0.01 **$ ,  $P > .05$ ).

The result also shows that financial literacy has a positive impact on investment decision making but is non-significant ( $\beta = 0.34 ** p > .05$ ) and therefore hypothesis 3 (Financial literacy has a significant and positive impact on making investment decisions) has been rejected. In step 3, it is shown that hypothesis 4, i.e. Financial Literacy plays a moderating role in the relationship between the over-confidence bias and the investment decision was rejected because  $\beta = 1.10 **$ ,  $P > .05$ , but hypothesis 5, i.e. Financial Literacy plays a moderating role in the relationship between herding bias and investment decision was accepted because there is a positive and significant impact, i.e.  $\beta = 2.08 * p < .05$ .

The moderation graph shows that when investor was highly literate about financial theories then he shows more herding bias as compared to illiterate investor. Therefore, it could be concluded that financial literacy has a positive relation with herding bias, while making any investment decision regarding the stock picking or disposition of stock.

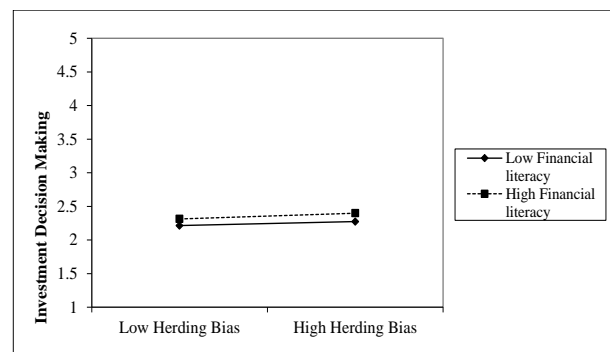


Figure 2:

## 5 Discussion

This study is done to review the role of herding bias and overconfidence bias in investment decision and moderating role as financial literacy. If we see with the view of theories of traditional finance then we conclude that investors make decision after assessing and exam-

Table 4.1: Mean, SD, Correlation & Reliability

	Mean	S.D	1	2	3	4
1. HB	3.20	.247	-			
2. OCB	2.53	.167	0.116	-		
3. ID	4.19	.649	-0.207	0.280	-	
4. FI	1.93	.259	0.000	-0.129	0.037	-

Note. N=149; alpha reliabilities are presented in parentheses. HB=Herding Bias, OCB=Overconfidence bias, ID=Investment Decision, FI=Financial Literacy. \* $p < .05$ . \*\* $p > .05$ .

Table 4.2: Result of Regression Analysis

Predictors	Investment Decision Making		
	$\beta$	$R^2$	$\Delta R^2$
Control Variable		0.002**	0.002**
<b>Step 2</b>			
Overconfidence Bias	2.09*	0.470*	0.468*
Herding Bias	0.01**		
Financial Literacy	0.34**		
<b>Step 3</b>			
OCBxFL	1.10**		
HBxFL	2.08*	0.513*	0.43*

Note:  $n = 158$ , HE= Herding Bias, DE= Disposition Effect, FL= Financial Literacy and O= Overconfidence bias. Control variables were Gender, Age, Income, Market Visit, Investment C, Investment P\*  $< .05$  and  $p^{**} > .05$ .

ining all the available information relating to the stock and after that they make investment and take advantage of their wealth and utility. However, behavioral finance totally opposes these theories and recommends that it is impractical that markets are perfectly normal and there is no concept of strong form of efficiency in market where all investors have the same information and they all are highly educated; making decision on the basis of experience, qualification. So, behavioral finance identified some psychological biases and their impact on investor decision making.

First hypothesis of this study stated that overconfidence bias has significant and positive effect on investment decision making and results significantly supported the hypothesis. Studies in this area have explained how overconfidence bias, excessive rational influence Decision-making behavior. Overconfidence bias positively affects the relationship of investor type and their decision (Zaidi and Tauni, 2012). In Pakistan investor decision making is strongly effect by overconfidence bias (Khurshid, 2012).

Second hypothesis stated that Herding bias has significant and positive impact on investment decision making, which was rejected based on regression results. The herding bias occurs when the investor fol-

lows other investors in making investment decisions, therefore, the results are not in line with past study that investment decision making is positively influenced by herding bias. Malik and Elahi (2014) claimed that investment decision is positively influenced by herding bias. In addition, some significant studies (Grinblatt et al., 1995; Lakonishok et al., 1992; Wermers, 1999) on the behavior of the herd in investment decision-making have been carried out.

The third hypothesis is that financial literacy has a significant and positive impact on investment decision making and that it is not statistically significant, so the hypothesis is not supported. Effective decisions are made taking into account the possible financial consequences they can bring (Widdowson et al., 2007). Merikas et al. (2003) postulated that the availability of financial information is a significant variable that influences investment decisions. To invest successfully, financial education must be improved Agnew and Szykman (2005). However, there are different studies that examined that financial education has importance and positive influence on the investment decision.

The fourth hypothesis is that financial literacy moderates the relationship between the over-confidence bias and the investment decision, and the result is in-

significant, so the hypothesis is not supported. Furthermore, hypothesis five stated that financial literacy moderates the relationship between herding bias and investment decision, and the hypothesis is supported by its statistical significance. There are several studies on behavioral biases and financial literacy that show different results with respect to the relationship between financial knowledge and behavioral biases that may be due to several factors. With reference to the relationship between the level of financial knowledge and investment decisions, it has been observed that highly literate investors prefer and use different techniques when making an investment decision than investors with low literacy. Highly literate investors prefer to use financial publications, while low literacy investors rely more on the advice of family members, friends and brokers. Because of this, investors show above all behavioral bias because they were illiterate, so they could not make decisions and do the same as other investors when other investors sell the shares they sell when they look for little benefit in stock. Discard it and do not wait for further increase in the price, since they show excess confidence while they collect the actions and make wrong decisions (Hassan Al-Tamimi and Anood Bin Kalli, 2009).

### 5.1 Practical Implication

On the basis of above research finding, the research brings a number of recommendations for managers and investor who invest in stock exchange. The study recommended that, in order to overcome excessive optimism behavioral biases that affect the frequency of investment in the stock market, need to conduct training programs and seminar that create awareness of investors and the capability to recognize and protect against such prejudices leading to poor investment options should be offered to potential and existing individual investors. The study also recommends that individual investors seek the advice of brokers / fund managers that have more experience in this field, to advise them in terms of guaranteeing certain security that the investor wants to invest.

### 5.2 Limitation

Time was main the constraint while conducting this research. The study was undertaken within specific academic timelines as the research study was projected to fulfill academic course work requirements. This study was organized through survey questionnaire that was always condemned due to general problems. Respondent may feel hesitate in their response because structure questionnaire was used for data collection that can lead to incorrect results.

### 5.3 Direction for Future Research

Quantitative research method was used for data collection, however many qualitative methods can also be used to better understand these problems. Qualitative research methodologies can better capture investor behavior. Therefore, in future research studies, there is a need to include qualitative research method. There is some potential of including some other variables in future research, such as culture dimensions, personality traits and investor types as independent variable, dependent variable, moderating variable and mediating variable in order to better understand financial decision making. This study focused on short-term investment decisions on the stock market, while there are many other types of financial decisions such as financing decisions, investments in other sectors of the economy. Therefore, future research should also investigate the stated dimensions.

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# Social Impact of FATA Development Authority Skill Development Program in Khyber Agency

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**Abstract.** This study tries to investigate the assessment of the FATA Development Authority's skill development program offered for FATA youth. The aim is to explore the social impact of the FATA Development Authority's skill development program in Khyber Agency and to critically analyze the three main objectives of these programs which are: to impart new skill in the youth and to make them more competent, to increase the employability level of the youth and lastly to promote the entrepreneurial spirit in order to start their own business. The trainings were broadly divided into hard and soft skills trades, which were planned in more than 35 different trades and covered the entire FATA region. These trainings were also conducted in Khyber Agency in these different trades. Due to unavailability of data, confidentiality and loss of archival data, only 6 different trades with three each for hard and soft skills have been taken in Khyber Agency. Trainings for these trades were conducted in the financial year 2013-14 and 2014-15. The data have been collected through semi-structure interviews with the trainees and then it were analyzed descriptively. Total of 35 out of 51 trainees were interviewed for the study in selected trades. Finding of this study shows that only 26% of the trainees learned new skills, 20% of the trainees got employment or self-employed and 17% of trainees started their own business.

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## 1 Introduction

### 1.1 Background of the Study

Federally Administered Tribal Areas is one of the less developed regions in Pakistan with literacy rate of 24.05%; where the literacy rate for male is 36.66% and for female it is 10.50%. The overall enrollment rate in Government Institutions is 600967 with 408638 (68%) in Primary, 71150 (12%) in Middle, 97746 (16%) in High, 8565 (1.4%) in Higher, while 14868 (2.5%) are enrolled in colleges. There are total 5699 Government Educational Institutions in Federally Administered Tribal Areas (FATA) in which 4344 are functional, 1143 are non-functional and 197 are closed (Naseer, 2015). The details of Government institutions are illustrated in following table.

Low literacy rate and lack of skills are two of the reasons impeding development in the tribal region. Semi-literate and educated youth of FATA has no opportunity of acquiring skills which they can use as a means of getting employment or starting their own business. To address this issue, FATA Development Authority initiated the skill development program in 2007 for FATA region and these programs cover seven agencies (Khyber, Mohmand, Malakand, Orakzai, Kurram, South Waziristan, North Waziristan) and six FRs

(FR Peshawar, FR Kohat, FR Bannu, FR Lakki, FR DI Khan, FR Tank).

These programs were initiated with the following objectives:

1. To impart new skill in the FATA youth
2. Increase the level of employability
3. Encourage and promote entrepreneurship

These skill development programs had been fully functional since the date of its inception and more than 40,000 youth were trained in different trades under the skill development program. These skill development programs consisted of both soft skills and hard skills and were offered in more than 35 different trades. The details of both soft skills and hard skill trades are illustrated in Table 1.3.

FATA Development Authority offered the above trade under different heads like intuitional and field internship based, women Skills Development Centers in FATA, Skilling FATA through Joint Venture, Skill Development and Entrepreneurship Training Program. The detail of the number of trainees who completed their trainings under the different heads is given below.

Like other agencies, FATA Development Authority Skill Development Program also covers the Khyber Agency and youth is among of its major beneficiaries.

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Table 1.1: Total number of Government Educational Institute in FATA

S.No	Level	Institution		
		Boys	Girls	Total
1	Mosque	178	-	178
2	Primary	2,114	1,613	3,727
3	Middle	337	200	537
4	High	257	75	332
5	Higher Secondary	11	05	16
6	Degree College	24	13	37
7	Elementary College	03	01	04
8	Community	360	451	811
9	IHC	-	44	44
10	Government College of Management Sciences	05	-	05
11	Government Technology Institute	08	-	08
<b>Grand Total</b>		<b>3,297</b>	<b>2,402</b>	<b>5,699</b>

Source: Annual statistical report of Government Educational Institutes (2013-14)

Table 1.2: Current Status of Government Educational Institutes in FATA

S.No	Government Institute	Functional	Non Functional	Closed
1	Government Primary Schools	3,027	694	06
2	Mosque Schools	124	53	01
3	Community Primary Schools	374	247	190
4	IHC Schools	37	07	-
5	Middle Schools	445	92	-
6	High Schools	291	41	-
7	Higher Secondary Schools	14	09	-
8	Degree College	28	-	-
9	Elementary College	04	-	-
<b>Total</b>		<b>4,344</b>	<b>1,143</b>	<b>197</b>

Source: Annual statistical report of Government Educational Institutes (2013-14)

Under the above mentioned different heads, a number of Khyber Agency youth has been trained under the umbrella of skill development program in different trades.

This study was conducted to explore the Social Impact of the FATA Development Authority's Skill Development Programs in Khyber Agency in terms of achievement of its desired objectives, which are mentioned earlier. For this study different trades including both soft skills and hard skills have been selected on convenient basis. Data have been collected through semi-structure interview from the trainees who attended the training of different trades which are mentioned in Table 1.5. However, due to the confidentiality,

loss of record and unavailability of the trainees the data have been collected from limited number of trainees (35 out of 51) for the selected trades. The details of selected trade and number of trainees are illustrated in following table.

The main objective of this study is to explore the social impact of the Skill Development Program in Khyber Agency in term of:

1. New skills learned by the trainees
2. Impact of trainings on the employability level of the trainees
3. The role of these trainings in promotion of en-

Table 1.3: Current Status of Government Educational Institutes in FATA

S.No	Trade	S.No	Trade
1	Auto Electrician	19	Leather Goods
2	Auto Mechanics	20	Light Engineering
3	Block Mason	21	TV Camera & Lightening Course
4	Foot Ball Stitching	22	Computer Networking
5	Gemology & Carving	23	Video Post-Production
6	Driving License with (LTV, HTV)	24	Heavy Machinery Operator
7	X-Ray Machine Operator	25	Plumbing
8	AC Refrigeration	26	Electrician
9	Material Testing	27	Mobile Phone Repairing
10	PLC Electronic	28	Land Surveying (With Auto CAD)
11	Surveyor Civil	29	Office Automation and Management
12	Computer (Hardware)	30	Laboratory Assistant
13	Advanced Auto Mechanic (EFI/CNG)	31	Dress Making & Tailoring Techniques
14	Steel Fixer	32	Turner Machinist
15	Fan Assembly Course	33	Mechanic-II (Chasis)
16	Auto CAD 2-D, 3-D	34	Quantity Surveyor
17	Hotel Management	35	Call Center Operator
18	Camera & Lightening	36	TV Direction/Production

Source: FATA Development Authority

Table 1.4: Detail of the Trainees up to financial year 2014-2015

S.No	Name of Scheme	Total No. of Trainees
1	Skills Development Program (Institution-Based)	16,300
2	Women Skills Development Centers in FATA	16,282
3	Skilling FATA Through Joint Venture	2,595
4	Skill Development and Entrepreneurship Training	4,124
5	Skills Development Program (Field Internship)	3,107
<b>Total Trainees</b>		<b>42,408</b>

Source: FATA DA Annual Report 2014-2015

trepreneurship process

The Skill Development Program covers the entire FATA with focus on youth including both male and female. More than 35 different trades have been offered under this initiative and consisted of both hard and soft skills trainings. However, this research study is limited to Khyber agency and the data have been collected from male trainees only, due to cultural barriers, the female trainees did not participate in the study. On the basis of convenience and availability of data, six different trades have been selected for this study out of the total 35 trades. The selected trades include AC Refrig-

eration, gemology, computer networking, hotel management, camera and lightening, TV direction and production.

## 2 Literature Review

Skill is the ability, coming from ones knowledge, practice and aptitude to perform something effectively (Aring et al., 2015). Skill is further divided into two types, one is called technical or hard skills and the other is called soft skills. Technical skill or hard skill is required to deal with tool or processes such as coding

Table 1.5: Trade wise Trainees details

S.No	Trade	Financial year	Trade Type	No. of total trainees
1	AC Refrigeration	2013-14	Hard Skill	18
2	Gemology	2014-15	Hard Skill	11
3	Computer Networking	2014-15	Hard Skill	6
4	Hotel Management	2014-15	Soft Skill	4
5	TV Direction & Production	2014-15	Soft Skill	4
6	Camera & Lightening	2014-15	Soft Skill	8
<b>Total Number</b>				<b>51</b>

Source: FATA Development Authority

software or operating a machine; while soft skill is the skill required for interaction with humans to get work done such as communication, human relation, negotiation and team work etc (Aring et al., 2015).

Previous research shows that skill development plays a vital role in sustainable economic growth of a country (Khan, 2009). Services sector is one of the growing sectors in Asian countries with high economic and social impact; where the modern services are technological and knowledge intensive in nature and it demands for high specialized skilled workforce (Jaganathan, 2013). Technological changes ultimately affected the job structure in the region and brought new challenges to the developing countries in South Asia (De Vries et al., 2016).

Skill development programs increase the competency level of workforce and provide better opportunities for career growth (Milberg and Winkler, 2011). According to 2005 International Labor Conference resolution, quality education, training and skill improve productivity and give a higher return in the form of income (Cichon, 2013). Research shows that youth equipped with market based skill has greater opportunities to find a good job; the skills show a positive impact on future employment and enable them to start their own business (Adams, 2012).

Skill development training of entrepreneurship shows a positive impact on the new start-up, it increases the number of youth Pre-entrepreneurs and employability (Schoof et al., 2006). There is strong evidence that training has a positive impact on the entrepreneurship processes, with improvement in management skill, giving birth to new ideas, empowering youth in decision making and enabling them to finance their own business (Day-Hookoomsing et al., 2003). However, entrepreneurship training alone has shown a mixed impact on the new start up or on the growth of existing business; it produces positive impact in some cases, while at the same time it produces a negative result in other cases (Patel, 2014).

The European Training Foundation (ETF) is a European agency which was established with the vision to develop an efficient Vocational Education Training (VET) for their member countries. It provides market based training to the workforce in order to enhance employability level of their workforce (Faludi and Waterhout, 2012). Countries are using different approaches towards the skill development of their workforce. The Republic of Korea has developed National Competency Standards (NCS) which identify the required standards of performance for a worker to perform in industrial setup. The aim of the National Competency Standard model is to make society competency-oriented rather than academic oriented and it comprises of both institutional and industrial based trainings (Kanchoochat et al., 2014).

People Republic of China initiated the National Revitalization Program for highly skilled personnel in order to strengthen team building skills in enterprises, and to conduct training programs targeting different skill levels of worker. The National Revitalization Program (NRP) is supported by the training subsidy and provides the training opportunities for employed and unemployed workforce. It was initiated in June 2012 with the aim to promote and encourage pre-job training and on-the-job training for new and existing skills up gradation (Kanchoochat et al., 2014). Government of India developed a frame work in 2014 in order to equip youth with market based skills, to increase their employability level, and to promote entrepreneurship. The skill development framework consists of apprentices Act, 1961, the National Skill Qualification Framework (NSQF) and the National Skill Policy (NSP). The apprentices Act 1961 made it mandatory for the employers to establish training infrastructure in order to ensure maximum access of trainees to real work environment through on-the-job training. In 2009, National Policy for skill development has been formulated with the aim to develop strategies for addressing the skills development challenges and to empower the work-

force with market based knowledge and skill in order to make them globally competitive. The National Skill Qualification Framework (NSQF) is competency base system which organizes all qualification, based on level of knowledge, skills and aptitude (Kohli et al., 2015).

Bangladesh has developed National Skill Development Policy for the period of 2010-15 with the aim to develop their workforce and make them competent in international market. The objectives of the skills development policy include: the reorientation of the skill development initiatives with changing technologies and labor market demands, improving the productivity and profitability of enterprises, strengthening national competitiveness and to reduce poverty, improve the quality and relevance of skills development in Bangladesh, and to increase level of participation in skills development by employers. To achieve these objectives of the National Skill Development Policy the government of Bangladesh established the National Skill Development Council (NSDC) with the collaboration of their industrial partner. Based upon the National Skill Development Policy (NSDP) they have started to offer formal trainings under the vocational and technical training institutes and to impart informal trainings through on the job training or field internship basis (Mamun and Nath, 2010). The approaches of some countries towards skill development programs are illustrated in the following table.

In provision of skill development program, Pakistan lags behind the international and regional level. To address this issue, government of Pakistan established a new body, the National Vocational and Technical Education Commission (NAVTEC) in 2006. It provides policy direction for skill development program in order to make the workforce competent according to the local and international market demand.

NAVTEC has developed National Skill Strategy (Ansari and Wu, 2013):

- Provision of skill to the workforce based on the demand of industry
- Expanding geographical provision of skill development program and to increase the equity and employability of workforce
- Assure the quality of the skill development program

To put National Skill Strategy (NSS) in action, FATA Development Authority on directions of Governor Khyber Pakhtunkhwa also initiated skill development program for FATA youth (Mirza et al., 2007). These trainings were offered for different trades like tailoring, machining, mining, MS office, building electrician, survey etc. The youth including both male and female from the seven agencies and six frontier regions are the main beneficiaries. Before 2014, FATA development Authority was providing these training to

1,700 trainees on annual basis, but later the number of trainees increased from 1,700 to 10,000. These skill development trainings were initiated with the aim to increase the employability and encourage the youth to start their own business (FATA Development Authority Annual Report 2014-2015, 2014).

Though program design for skill development appears to be quite structured on paper and has clearly articulated goals. But, the real test is implementation of these programs and the achievement of their desired objectives. The common objectives of Skill development Program is to imparting new skills, increase level of employability and to encourage the youth to start their own business. This research is an assessment study which is conducted to explore the Social Impact of FATA Development Authority's Skill Development Program in term of their desired objectives.

## 3 Methodology

### 3.1 Research Design

This is a qualitative research study and data were collected through semi-structured interviews from the trainees. On convenient sampling basis only six different trades have been selected out of the total 35 trades, with three each for hard skills and soft skills. The snow balling technique was also employed along with the convenient sampling in order to access maximum trainees. Limited number of trainees showed their willingness and interest to participate in the study for the above selected trades while some of the trainees were reluctant to participate.

### 3.2 Population and Sample size

In this study the data are collected from the Khyber Agency trainees who have completed their trainings in the financial year 2013-14 and 2014-15. A total of 51 trainees have completed their training for the selected trades, as shown in Table 3.1. However, only 35 trainees have shown their willingness to participate in this research study.

### 3.3 Data Collection

This study is based upon primary data, which were collected in two steps:

- From FATA Development Authority
- Through semi-structured interviews with the trainees

Table 2.1: Approaches of countries towards skill development

S.No	Country Name	Frame Work	Training Approaches	Target Group
1	Republic of Korea	NCS	Institution Based Training	Student
2	China	NRP	Industry Based Training On-the-job	Employees Fresh Graduates
3	India	NSQF	National Revitalization Plan Apprentice Training	Professionals Student
4	Bangladesh	NSDP	On-the-job Training On the job Training Vocational and Technical Training Institutes	Professionals/Fresh Informal Training Formal Training

Source: [www.adb.org](http://www.adb.org)

### 3.3.1 FATA Development Authority

FATA Development Authority provides the relevant information related to skill development program and about the different trades they have offered for the FATA Youth. They have also provided the list of trainees with details who had completed their trainings in the financial year 2013-14 and 2014-15.

### 3.3.2 Semi-structured Interviews with trainees

The data have been collected from the trainees through semi-structured interview and each interview lasted for 10 minutes on average. A total of 35 out of the 51 trainees have participated and required data were recorded during the interviews. In interview, different topics were discussed like the impact of skill development program on new skill acquired, employability and entrepreneurship. The trainees also provided their suggestions for improvement of skill development program.

## 4 Data analysis

After collecting data and responses from the trainees on the three major research questions along with sub-questions, the data were converted into tabulated form. The data were descriptively analyzed and the results were summarized in the form of percentages against the each desired objectives of the FATA Development Authority's skill development program.

This research study was carried on for selected 6 different trades out of the total 35 trades offered by the FATA Development Authority under the umbrella of skill development program. The selected six trades included three each for hard skill and soft skill. The trades and trainees wise detail of the selected trades are illustrated in the following table.

The relevant responses of the trainees have been discussed below:

Table 3.1: Trade wise Trainees details

S.No	Trade	Financial year	Total number of trainees	No. of trainees participated
1	AC Refrigeration	2013-14	18	11
2	Gemology	2014-15	11	08
3	Camera & Lightening	2014-15	8	04
4	Computer Networking	2014-15	06	04
5	Hotel Management	2014-15	04	04
6	TV Direction & Production	2014-15	04	04
<b>Total Number</b>			<b>51</b>	<b>35</b>

Source: FATA Development Authority

Table 4.1: Trade wise Trainees details

S.No	Trade	Financial year	No. of total trainees	No. of trainees Interviewed
1	AC Refrigeration	2013-14	18	11
2	Gemology	2014-15	11	08
3	Camera & Lightening	2014-15	08	04
4	Computer Networking	2014-15	06	04
5	Hotel Management	2014-15	04	04
6	TV Direction & Production	2014-15	04	04
<b>Total Number</b>			<b>51</b>	<b>35</b>

Source: FATA Development Authority

#### 4.1 New skill acquisition

In the interviews the question has been asked from the trainees about the new skill they have learned as a result of the training program. Only 26% (9/35) of the trainees have responded that they have learned new skills in the training. However, when asked about the practical demonstration only 20% (7/35) replied that they can demonstrate these skills practically. 74% (26/35) trainees replied that they have not acquired any new skills in the trainings offered by the FATA Development Authority. In general the AC Refrigeration and Gemology trades provided positive results and the trainees have acquired new skills in these two trades. The rest of the trades like camera & lightening, computer networking, hotel management and TV production & direction trades have showed disappointing results as mentioned in the Table 4.2.

#### 4.2 Employability

This research study shows that only 20% (7/35) of the trainees were employed after getting the trainings. Among those 20%, the percentage of self-employed and employed is 86% (6/7) and 14% (1/7) respectively. Furthermore, the results also show that 80% (28/35) are still unemployed. The AC refrigeration and Gemology trades gave positive results as compared to the other trades and showed the level of employability or self-employability as 36% (3+1/11) and 37% (3/8), respectively. The other trades like camera & lightening, computer networking, hotel management, TV direction and production showed 0% of the employability level as illustrated in Table 4.3.

#### 4.3 Entrepreneurship

Findings suggest that 17% (6/35) of the total trainees started their own business. The AC Refrigeration and Gemology trades showed positive results as compared to the other trades. From the above

17% (6/35), the contribution of AC Refrigeration and Gemology trades was 50% (3/6) and 50% (3/6) respectively. The other trades like camera & lightening, computer networking, hotel management and TV direction and production showed 0% contribution towards the self-employment or new start-ups. This study also shows that 83% (5/6) of the startups are still surviving, while 17% (1/6) failed to survive. The detail is illustrated in Table 4.4.

## 5 Conclusion and Discussion

In the era of globalization and technology, skill development program is crucial for the sustainable economic growth. Effective and market based skill development programs can impart new skill in the workforce and enhance the competence in the market. These programs not only make the workforce competent but also increase the employability ratio and encourage trainees to start their own business (Mok, 2013). This study is an assessment study and aimed to critically analyze the skill development programs offered by FATA Development Authority for the youth of FATA and to explore their social impact in terms of new skill imparted, employability and entrepreneurship.

### 5.1 New skill acquisition

Research study reveals that skill development programs equip the work force with new skill and make them competent (Milberg and Winkler, 2011). Findings of this study show that 26% of the trainees believed that they have learned new skill through training. The AC Refrigeration and Gemology trades have shown positive results as compared to the other trades and the trainees reported to have learned new skills in these two trades. The results of the other trades, which include camera & lightening, hotel management, computer networking and TV direction and produc-

Table 4.2: New Skill Acquired

S.No	Trade	No. of trainees	No. of trainees new skill acquired (No practical Demonstration)	No. of trainees new skill acquired (with practical demonstration)	No. of trainees no new skill acquired/ learned
1	AC Refrigeration	11	06	04	05
2	Gemology	8	03	03	05
3	Camera & Lightening	4	0	0	04
4	Computer Networking	4	0	0	04
5	Hotel Management	4	0	0	04
6	TV Direction & Production	4	0	0	04
<b>Total Number</b>		<b>35</b>	<b>09</b>	<b>07</b>	<b>26</b>

Table 4.3: No of self-employed/employed/unemployed

S.No	Trade	No. of trainees	No. self employed	No. of employed	No. of unemployed
1	AC Refrigeration	11	03	01	07
2	Gemology	08	03	0	05
3	Camera & Lightening	04	0	0	04
4	Computer Networking	04	0	0	04
5	Hotel Management	04	0	0	04
6	TV Direction & Production	04	0	0	04
<b>Total Number</b>		<b>35</b>	<b>06</b>	<b>01</b>	<b>28</b>

Table 4.4: New startup/self-employed

S.No	Trade	No. of trainees	No. of new start up started by trainees	No. of startup still surviving
1	AC Refrigeration	11	03	02
2	Gemology	08	03	03
3	Camera & Lightening	04	0	-
4	Computer Networking	04	0	-
5	Hotel Management	04	0	-
6	TV Direction & Production	04	0	-
<b>Total Number</b>		<b>35</b>	<b>06</b>	<b>05</b>

tion, are disappointing and according to the trainees they haven't learned any new skills in these trades. The trainees of the AC Refrigeration and Gemology were

found satisfied from the content of the training design and the way these trainings were delivered. Whereas, the trainees of the camera & lightening, hotel manage-

ment, computer networking and TV direction and production trades were unsatisfied from training content and expressed their concerns about the trainings in interviews. To impart new skills through training it is important to design training content effectively, based upon the market needs and demand while keeping the targeted trainees in focus. Besides the content design, it is also important to deliver the training effectively in a conducive environment.

## 5.2 Employability

Literature shows that there is a positive relation between skill development program and employability and it makes the workforce competent and helps them find a job (Adams, 2012). Skill development programs equip the trainees with new skill and ultimately increase the chances of their employability. However, skill development does not guarantee the employability and there are some other environmental factors which also affect employability. The results of the current study show that 20% of the total trainees were employed after receiving the skill development trainings. The AC Refrigeration and Gemology trades have shown positive results as compared to other trades. The percentage of the employability for AC Refrigeration and Gemology remained 36% and 37%, respectively. Whereas, the other trades like computer networking, camera & lightening, hotel management and TV direction & production showed 0% of the employability level. The AC Refrigeration and Gemology trade have shown positive results because these were market based trainings and the local market has the potential to absorb the trainees of these trainings as well as these trades are less capital intensive. In contrast, there is limited or no potential in the local market to absorb the trainees of other trades like computer networking, hotel management, camera & lightening and TV direction and production in the local market.

## 5.3 Entrepreneurship

There is a strong evidence that skill development programs encourage the youth to start their own business and promote the entrepreneurship process. It imparts entrepreneurial spirit in youth and makes them capable to manage and finance their business effectively (Adams, 2012). There is a positive relation between skill development training programs and the entrepreneurship and these programs give birth to the pre-entrepreneurs schoof2006. Skill development program has a mixed impact on the entrepreneurship processes (Patel, 2014). The findings of this research study show that after receiving the training in selected six different trades, 17% of the total trainees started their business or own startups. AC Refrigeration and Gemology have shown positive results with the percentage of the

new startups of 27% (3/11) and 37% (3/8), respectively. Whereas, others trades did not make any contribution to entrepreneurship process. The AC Refrigeration and Gemology trade are market based and less capital intensive; therefore these are the factors which encourage the youth to start their own business.

## 5.4 Recommendations

This study shows that the market based trades like AC refrigeration and Gemology provide better results in the form of employability and entrepreneurship as compared to other trades for which there is a limited or no potential in the local market. Therefore, a detailed study is required to identify market based trades. Linkages with academia and industry can play a vital role in the identification and designing of these training. Academia can make its contribution to the skill development program based on latest research studies and they can provide their input in the form of designing training content, implementation, evaluation and follow up of the trainings. Besides, academia and industry have a strong knowledge about the local market demand; based on their recommendation an effective training can be designed. They can provide opportunities to the trainees in the form of field internship or job placement. Industry can also make a good contribution in the form of the designing training content and they can provide the real job environment to the trainees.

During the interview, the trainees expressed that six months training period is too short, and they demanded to extend the training period. The long duration will provide them the better opportunities to learn and to demonstrate their skill practically during the training. The study also shows that one year and more than one year training programs are more effective and produce better result as compared to the short courses. Most of the trainees did not start their own venture due to the unavailability of fund and suggested FATA Development Authority should provide funds sand loan facility on soft terms and condition. Availability of the fund is the main issue while starting a new business and the youth of FATA does not have many resources to finance their venture. FATA youth are the people with entrepreneurial spirit and they can take risk of starting their own business. Besides the loan facility it is also necessary to arrange the Rozgar Mela, etc. for the trainees in order to create more employment opportunities. For effective implementation of the training and achievement of the desired results, it is necessary to offer the follow up training on the basis of follow up record and remain in touch with the trainees. This type of activity will boost the morale of the trainees, as well as it will make them more competent. These follow up trainings must to be designed as development trainings which will prepare the trainees for the future challenges.



## 5.5 Limitations of the study

Skill Development Program covers the entire FATA region which consists of seven agencies and six FRs, and these trainings are offered in more than 35 different trades. However, this study is only limited to Khyber Agency, and due to unavailability of data, confidentiality and loss of archival data, a limited number of trainees were interviewed for the selected 6 different trades out of total 35 trades. The respondents of this study were the male trainees only, who had completed their trainings in the financial year 2013-14 and 2014-15.

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# Influence of Servant leadership on Project success with mediating role of Team building and moderating role of Trust in Pakistan

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**Abstract.** The aim of the study was to explore the relationship between servant leadership and project success through the mechanism of team building; while trying to find out the moderation effect of trust. The data were collected from 120 employees in Islamabad Rawalpindi area through questionnaire from a sample drawn through convenient sampling technique. The data were analyzed through regression. The study findings suggested that Servant leadership has a positive relationship with project success, while team building also mediates the relationship between the two variables. Similarly, trust positively moderates the relationship between servant leadership and team building. The study concludes by discussing implications and future directions.

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## 1 Introduction

Personality and leadership style are considered as major success factors for a project (Joslin and Müller, 2016; Turner and Müller, 2005). The servant leadership concept is given by Greenleaf et al. (1996) The servant as leader, where leaders are servant first. So, such leaders have link with ethics, virtues and morality (Parris and Peachey, 2013). Many recent researches have found that servant leadership reveals positive relation with organizational performance in terms of trust and quality relationship among subordinates and supervisors (Joseph and Winston, 2005; Seto and Sarros, 2016; Timiyoy and Yeadon-Lee, 2016). This sets the background for good relations among such leaders and subordinates; also leading towards high performance appraisals and carrier opportunities (Miao et al., 2014).

Joslin and Müller (2016) have identified stewardship as one of the reasons for projects success. Servant leadership has attributes of stewardship, empathy, trust, empowerment, encouraging subordinates, listening, and decision making (Van Dierendonck and Nuijten, 2011).

In order to influence project performance positively other than triple constraints, project managers have to work on team building and for this they need to develop team trust. Team trust is also strongly associated with organizational performance (Costa, 2003). Based on the Cohen and Bailey (1997) research, process factor can directly impact the outcome into behavior and performance. Team building is selected as process factor, whereas trust is chosen for behavioral outcome and performance includes quality of work or project perfor-

mance.

Studies are found in project management literature, on transformational leadership and its positive impact on project performance with the mediating role of team building by Aga et al. (2016). Comparison studies of servant leadership with association of transformational leadership are also made by Hoch et al. (2016); whereas, significance of team building and leadership and their impact on project success this have also been studied Bubshait and Farooq (1999). Therefore, the underlying process of servant leadership and its impact on projects success is not addressed properly in project management literature.

Servant leader works as servant first in order to provide services to others and focuses more on organizational objectives rather than their own personal objectives (Davis et al., 1997; Greenleaf et al., 1996; Parris and Peachey, 2013; Russell and Gregory Stone, 2002). This has been supported by stewardship theory because stewards seek the organizational objectives (Davis et al., 1997), and this kind of attitude makes them emphasize on team building by the effective coordination among team members so that they can serve their clients as obligation. Servant leaders with the support of conflict management can enhance teamwork (Wong and Page, 2003).

Purpose of this study is to make contribution towards better understanding of servant leadership as project manager for enhancing team building with moderating role of trust and ultimately their impact on projects success. Assuming that servant leadership facilitates the team building concepts in return it positively affects the project success. Servant leaders are

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most trusted leaders for organizations (Greenleaf et al., 1996; Sendjaya and Pekerti, 2010).

## 2 Literature Review

### 2.1 Project Success

Typically project management is delivering of a product to the customer within time and budget constraints. But the research by Shrnhur et al. (1997) has highlighted the project success into four dimensions; Project efficiency dimension is considered as short term which has more about the process of project. Success in this dimension simply is expressed if project is done within specified time and budget. Impact on customers relies on customer satisfaction in terms of their needs which has been fulfilled. This can be gauged by checking to what extent the end user is using this product, is he looking for some more changes or updating the current product reveals how much the customer is satisfied. Business and direct success refers to the impact of a project on the organization. In terms of business how much profit did it make? Did it help in achieving ROI? The last dimension, Preparing for the future is all about identifying the future opportunities and skills required; getting prepared for the competitors moves. Therefore, project success is basically a concept of both short and long term. First dimension is only assessable in short term during the project execution. Second dimension is after a short time, when customer is using the product this may take few weeks or months. Third dimension can be assessed after making number of sales may take around years. Whereas, fourth dimension is also long term may take around four to five years. So, all these dimensions are time-dependant. Another research made by Belassi and Tukel (1996) posited that success and failure of the project dont have same criteria. There are some critical factors such as factors influencing project performance, team members, industrial or environmental factors. Project management institute (PMI) has defined the success in terms of quality, scope, time, cost and meeting stakeholders needs (PMI, 2008).

### 2.2 Servant leadership

Servant leadership was firstly introduced by Greenleaf (1977) under the title of The servant as leader which means who serves as a leader first. Contribution to Greenleafs research (Spears and Wagner-Marsh, 1998) identified several attributes including: listening, empathy, healing, awareness, persuasion conceptualization, foresight, Stewardship, Commitment to the growth of people, Building community. Revised servant leadership profile is explained by Wong and Page (2003) in which factors were listed, such as Developing and empowering others by looking into hidden tal-

ents of others. They look at themselves as a superior and keep all the subordinates under control. Visionary leaders are able to inspire others. Servant hood by maintaining servant heart is able to make personal sacrifices. They are considered responsible as they do not blame others and understand the organization very well; Honesty in terms of keeping promises and commitments through honesty and empathy which builds the trust. They are courageous, listen to all, and involve everyone in decision making. This helps in team building.

### 2.3 Servant leadership and project success

Difference between transformational and servant leadership is the focus of leader basically; where transformational leader focuses on an organization and servant leadership focuses on followers commitment which ultimately is towards the achievement of organizational goal. Both of these leadership styles are dynamic in nature and both of them generate the high level of trust with just difference in focus as mentioned above (Russell and Gregory Stone, 2002). According to Flynn et al. (2016) servant leadership theory plays a role of self evaluation which positively leads to leader performance. Judge and Kammeyer-Mueller (2011) found that organizations would be preferring individuals with high core self evaluation as such individuals are very focused with job satisfaction motivation and performance. Four specific traits of core self evaluation found by Judge et al. (2003) were self-esteem, generalized self-efficacy, low neuroticism and locus of control. As Flynn et al. (2016) have said that self evaluation is positively related to leaders performance. Servant leadership works as servant first in order to provide services to others and focuses more on organizational objectives rather than their own personal objectives (Greenleaf, 1977; Parris and Peachey, 2013; Russell and Gregory Stone, 2002). Personality and leadership style is considered as major success factor for a project (Joslin and Müller, 2016; Turner and Müller, 2005). With the support of stewardship theory it is perceived that stewards seek to obtain the organizational objectives more rather than their self interest in turn it benefits organization in terms of profit (Davis et al., 1997). Servant leadership having stewardship as an attribute (Spears and Wagner-Marsh, 1998) plays vital role positively with project success. Hence with the support this literature following hypothesis is offered:

*H1: Servant leadership positively influences project success.*

### 2.4 Team-building

Team building refers to interventions such as problem diagnosis and solving meetings with use of con-

sultant are designed to improve the efficiency of work groups (Woodman and Sherwood, 1980). Meetings based on the data collection, feedback of the data and action planning. Tannenbaum et al. (1992) has also said that intervention process is a set of activities helping individuals. Conceptual definition of team building is given by Buller (1986) in which a team building problem solving approach is presented; whereas, problem solving is team building activity to solve major problems and ultimately develop the teams capacity of problem solving. Dirks (2000) has said that the efficiency of organizational performance in terms of profit is based on how people learn, collaborate and interact with each other. He said that organizations are changing their traditional hierarchical structures into more dynamic nature team where every member works on a same goal, where manager with employees grow together. Study made by Klein et al. (2009) checked whether team building works? The results are very supportive of the idea that team improves the outcomes. Major components of teambuilding are Goal settings: developing of goals with the help of consultant. This approach can be strategic level or can be targeted on some specified productivity. Role clarification: this approach is basically concerned with the roles of the team members mainly involves negotiation skills or discussion among team members in order to reduce conflicts. Interpersonal relations: this approach focuses on the interpersonal relations in a team. This can be aimed to improve the trust among members and encouraging support and communication. Problem solving: this is about identifying the major problems, solving techniques and action planning. Goal setting and role clarification have larger impact on outcome.

## 2.5 Servant leadership and team-building

Team building is considered crucial for project manager to keep the team motivated for achieving their common goals Project is all about managing team so managers have to build up their team for successful projects (PMI, 2013). Based on Cohen and Bailey (1997) study, process factor can directly impact the outcome into behavior and performance. Team building is selected as process factor, whereas trust is chosen for behavioral outcome and performance, which include quality of work or project performance. Moreover the team building practices are important as they are used to enhance the trust among team members in order to promote the team cohesion (Fung and Cheng, 2016); as they proved in their research that both team trust and team cohesion influence project performance. In every project nature there is a leadership behind successful programs which heavily involves the skills of working together (Bubshait and Farooq, 1999). Characteristics of a servant leadership explained by Spears (1996) as they are more humble, they treat subordinates with un-

conditional respect which helps in making work environment positive and enhance the intrinsic motivation. Such leaders easily earn trust because they place their followers above self-interest. They always make good relations through empathy, kindness and emotional intelligence. They easily gain co-operation by valuing team and involving others in decisions which provides the basis for team building. Hence with the support of the literature we can say that Servant leadership positively influences project team building and team building positively influences project success. Hence we can say:

*H2: Team building mediates the relationship between servant leadership and project success.*

## 2.6 Moderating role of Trust

Berry (1995) has said that trust is an important element for successful relation. Trust has multilevel view between individuals, groups and firms (Rousseau et al., 1998). Trust theory explained by Moorman et al. (1993) in market research relationships. This theory tells that trust is predicted by interpersonal factors. They defined trust as an intention of behavioral willingness. Crosby et al. (1990) have said that future sales opportunity is dependent on relationship quality such as trust. The component of experience influences the overall satisfaction, trust and commitment for customers. But trust and commitment have impact on future intentions (Garbarino and Johnson, 1999). Projects are more effective with maintaining high level of trust between participants (Smith and Rybkowski, 2012). Servant leaders are most trusted leaders for organizations identified by Sendjaya and Pekerti (2010). Based on Cohen and Bailey (1997) research, process factor can directly impact the outcome into behavior and performance. Team building is selected as process factor whereas trust is chosen for behavioral outcome and performance includes quality of work or project performance. According to Goh and Low (2013) organizations should adopt the servant leadership style to gain trust, which ultimately positively affects the results in terms of organizational commitment. Individuals prone to trust others are strongly associated with the highest quality relationships with support of social exchange theory (Berneth and Walker, 2009) this theory is dependent on situation varying from person to person it does concern with managerial personalities and their subordinates personality in terms of social exchange. Trust in leadership will affect the team performance. Studies show that trust among team members appears positive with team performance and satisfaction (Costa, 2003). According to Spears and Wagner-Marsh (1998) servant leaders have attribute of trust in their personality and focus on the organizational needs more (Greenleaf et al., 1996). Hence with the support of this we can

say.

*H3: Trust positively moderates the relation between servant leadership and teambuilding*

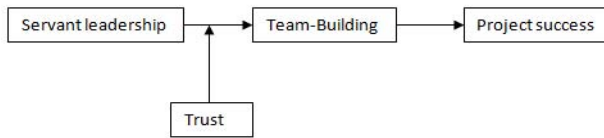


Figure 1: Model

### 3 Methodology

#### 3.1 Population and Sample

The study targets the impact of servant leadership on projects success with mediating role of trust and moderating role of team building in project based companies located in Islamabad and Rawalpindi. 120 self-administered questionnaires were distributed among private sector; only 100 respondents completed and returned survey. The demographics of the sample are summarized in Table 3.1.

Table 3.1: Demographics

Item	Frequency
Gender	
Female	50
Male	40
Total	90
Level of Education	
First Degree	15
Master	70
PhD	5
Total	90
Experience	
0-5	50
6-10	40
Total	90

#### 3.2 Measures

##### 3.2.1 Project Success

This study uses the survey items of Robey et al. (1993) to measure project success in project management literature. This scale consists of 6 items, covering time, quality, performance, budgets and effectiveness. All the respondents assessed items on a likert scale of

1-5 from Strongly Disagree = 1 to Strongly Agree = 5. The reliability of the instrument was 0.829.

##### 3.2.2 Servant Leadership

In leadership style there are multiple factors to be measured as far as servant leadership is concerned instrument was adopted from Van Dierendonck et al. (2017). There are 18 items including factors such as calling, listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, growth and community building. Sample question like 1. My manager gives me the information I need to do my work well. 2. My manager encourages me to use my talents. 3. My manager helps me to further develop myself. All the participants will asses on likert scale from 1-5. Strongly disagree to strongly agree. The reliability or Cronbachs alpha value was 0.856.

##### 3.2.3 Project Team Building

Instrument developed by Wong and Page (2003) was used for measuring team building. It contains 8-items. Sample like 1. I am willing to sacrifice personal benefits to promote group harmony and team success. 2. I evaluate and deploy team members based solely on their performance and capacity for serving others. 3. I encourage cooperation rather than competition through the group. This instrument is also measured against likert scale of 1-5. Strongly disagree to strongly agree. Its cronbachs alpha value was 0.823.

##### 3.2.4 Trust

Respondents completed all the 8 items, instrument developed by Gunia et al. (2011). Sample items were like 1. The other party will try to be someone who keeps promises and commitment. 2. The other party will do what they say they will do 3. In negotiations most other parties are basically honest. This instrument is also measured against likert scale of 1-5. Strongly disagree to strongly agree. The reliability was 0.889

### 4 Results

#### 4.1 Correlation

The demographic variables consisted of age, gender, and work experience. Gender was coded 0 as male and 1 as female. Age was reported in years, and work experience was also reported in the number of years the participant had been managing projects. Results were considered significant at  $p \leq 0.05$ . As shown in Table 4.1.

Table 4.1 presents inter-correlations among the variables. As predicted, significant and positive correlations exist among servant leadership, team-building, trust and project success. Servant leadership and

Table 4.1: Correlations Matrix

Variable	1	2	3	4	5	6	7
Age	1						
Gender	-.164	1					
Experience	.657**	.011	1				
Project success	.013	.199	.005	1			
Servant Leadership	.079	.22	.083	.625**	1		
Team building	-.213	.280*	-.28	.641**	.367**	1	
Trust	-.153	.323**	.018	.628**	.564**	.754**	1

Notes: \*\* Correlation is significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed).

project success were significantly correlated ( $r = 0.625$ ,  $p < 0.01$ ), and the team-building index was also significantly correlated with project success ( $r = 0.641$ ,  $p < 0.01$ ) and servant leadership ( $r = 0.367$ ,  $p < 0.01$ ). Positive correlation of trust with team-building ( $r = 0.564$ ,  $p < 0.01$ ) and servant leadership ( $r = 0.564$ ,  $p < 0.01$ ).

## 4.2 Regression Analysis

Hypotheses were tested using regression analysis. Hypothesis 1 of the study states that Servant leadership positively influences project success. Results of the hierarchical regression analysis are shown in Table 4.2. In step 1, only the control variables were included in the model. None of the control variables was found to be significant in explaining project success. The result of step 2 indicates that servant leadership has a significant and positive relationship with project success ( $\beta = 0.625$ ,  $p < 0.001$ ) Hence, Hypothesis 1 has been accepted.

Hypothesis 2 proposes that team building mediates the relationship between servant leadership and project success. The results in step 1 of Table 4.3 indicate that the control variables had a negligible effect on team-building. On the other hand, servant leadership uniquely contributed 24.9% of the variance in team-building upon its addition to the model in step 2. The results further show a strong and highly significant relationship between servant leadership and team-building ( $\beta = 0.560$ ,  $P < 0.001$ ) leading to acceptance of hypothesis 2.

The true indirect effects via team building on the servant leadership lies between 0.1098 and 0.4659, for these results zero wasn't present in the 95% confidence interval. So, the effect of servant leadership on project success was partially mediated by team building.

Table 4.4 shows moderation results. The direct effect of servant leader on team building is significant with .356\*\*\* as we as that of trust with team building with .318\*\*\*. Although, significant, but by adding interaction term, i.e. SL\*Trust the effect of teambuilding

enhances at  $\beta = 1.285$ \*\*\* leading to the acceptance of hypothesis three, i.e. trust positively moderates the relationship between servant leadership and team building.

## 5 Discussion

The purpose of the present study was to investigate the linkage between servant leadership and project success through the mediating role of team-building and moderating effect of trust. As predicted, we found a positive association between a project manager's servant leadership and project success. This finding shows that the project manager's leadership style plays an important part in project success. Essentially, a servant project manager motivates and inspires team members towards a holistic conception of project success, characterized by efficiency, effectiveness, and stakeholder satisfaction. This finding answers the call by Turner and Müller (2005), who underlined that the project management literature failed to give sufficient attention to the role of project managers' leadership styles. We also found that team-building is positively related to project success. Through these classic team-building practices, organizations and project managers are more likely to improve team members' knowledge about the project goals, roles and responsibilities, interpersonal communication, and problem-solving skills, which would in turn influence project success.

Second, and perhaps more importantly, we demonstrated that trust moderates the relationship between a project manager's servant leadership and team building. This is the first study that explicitly identifies the moderating role of trust in the relationship between servant leadership and team building. This finding suggests that project managers exhibiting servant leadership are more likely to create the team-building practices in a project environment that will help them to realize project success. These practices include project goal-setting, role-clarification, interpersonal relations, and problem-solving techniques, which together moti-

Table 4.2: Regression Analysis

Predictor	$\beta$	Project Success		
		$R^2$	Adjusted $R^2$	$\Delta R^2$
Step 1				
Control Variables		0.013	-0.014	0
Step 2				
Servant leader	.625***	0.391	0.382	.391***

75.\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 4.3: Mediated Regression Analysis

IV	Effect of IV on M	Effect of M on DV	Direct Effect	Total Effect	Bootstrapping Indirect Effects LLCI	Bootstrapping Indirect Effects ULCI
Servant Leadership	.4928	.6506	.6506	.2520	.1098	.4659

Note. IV = Independent Variable, M = Mediator, DV = Dependent Variable, LL = Lower Limit, UL = Upper Limit, CI = Confidence Interval. \* $p < 0.05$ ; \*\* $p < 0.01$

Table 4.4: Moderated Regression Analysis

Predictor	$\beta$	Team Building	
		$R^2$	$\Delta R^2$
Step 1			
Control variables		.023	
Step 2			
Servant leadership	.356***	.240	.217
Trust	.318***	.379	.319
Step 3			
SL*Trust	1.285***	.432	.052

Note: N=101, \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

vate and empower a project team towards project success.

Trust is one of the mechanisms that will increase relationship between leader and follower. Leaders who are trusted by their subordinate or follower can easily develop sense of assurance and obligation in their follower and subordinate. Trust on leader can have an effect on many results of organization and based on much research trust is one of the significant elements of servant leadership, so servant leadership style is the best element for developing trust in the organization. Employees show further bond with each other that nurture empathy when they have trust in the organization and their leaders, servant leaders are supposed to be honestly concerned about the well-being of their dependents. Due to sensitive nature of the project servant project managers first aim will be project employee and

when manager will trust and care the project employee the project success and performance will be automatically increased.

### 5.1 Theoretical and practical implications

The present study contributes to the project management literature by integrating leadership theory and a team-building model. The results of this study show that team-building interventions link the relationship between servant leadership and project success. This advances our understanding of servant leadership and team-building in engendering project success.

Due to short span of time only one mediator was examined, future study can develop the model and also test the other type of mediator like employee trust,

knowledge sharing, and self-efficacy and for moderator test collectivism, organization culture and high power distance and employee ethical concern. Second, we collected the data at once i.e. cross sectional future research should collect the data in time lags.

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# Antecedents of Brand Loyalty in Beverage Industry of Pakistan, Moderating Role of Brand Image

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**Abstract.** The aim of the current study was to examine a few antecedents of brand loyalty, such as brand awareness, perceived quality, especially focusing on the moderating role of brand image. The data were collected using survey method and statistical techniques such as correlation and regression were used for analysis and interpretation of the said data. The results indicated a positive relationship between perceived quality and brand loyalty but a negative relationship between brand awareness and brand loyalty. Additionally, no moderation has been found between brand awareness, perceived quality and brand loyalty due to brand image. Furthermore, perceived quality is found to be a determinant of brand loyalty. Overall, these results demonstrated that the influence on brand loyalty varies across various variables of study. Results from this study contribute to the marketing and brand managers seeking to improve their understanding of the ever growing brand loyalty topic.

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## 1 Introduction

A brand is generally defined as the name, sign, symbol, design or combination of them, that is aimed to give the goods and services recognition of a particular seller or a group of sellers and distinguish them from the competitors (Keller, 1993). Usually brands aim at assisting the buyers to meet their requirements in an optimal way, while sustaining their confidence in the worth of a product on which they had depended on previously; as doing so enhances the chances of the repeated purchase by the customer. Repeated purchase depends on the fact that a customer may get something valuable out of the purchase, to make them want to feel attached to the brand, consequently leading to the brand loyalty. From a company's standpoint, retaining such customers is much more lucrative and easier, as creating a new customer pool is not only costly but takes up much more time and effort than the former. Customer loyalty can be achieved by maintaining a healthy and treasured relationship between the customer and the brand (Raimondo et al., 2008). Companies having a large pool of buyers who are loyal to brand perform well by the virtue of increased sales and transactions, owing to their loyal customers, having a positive impact on brand and overall firm performance. Chaudhuri and Holbrook (2001) posited that a customer's loyalty to the brand is one of the major factors which influences the market share of the company. Similarly, Raju et al. (1990) postulated that the brands with a larger loyal customer base have to spend

much less when it comes to price promotions, offers, etc. in comparison to those with less loyal clientele. The greater the difference between the loyalty rates among two brands, the stronger one is more likely to be spending on marketing in order to enhance their sales (Agrawal, 1996). The Brand loyalty has been an issue for researcher in measuring it or finding its antecedents. According to an old approach loyalty has two components behavioral loyalty as well as attitudinal loyalty. Most of researchers have tried to integrate both components, to measure it. In this particular study we will follow the stochastic approach according to which Loyalty is a behavior. In this support we made the base three of theories Social exchange theory, Social learning theory and Theory of planned behavior.

A small literature in respect of brand exists in the developing economies. In Pakistan a least research work have been carried out in academics on brand. Pakistan is a different context in respect of the culture for example According to Hofstede (1984) study of national cultural comparison Pakistan has collectivism culture it means in Pakistani culture a group orientation is common approach. These groups may contribute in brand loyalty through positive words of mouth. Another dimension is the high rate of uncertainty avoidance. At the same time the literature suggests that risk aversion may lead to brand loyalty. It means here the research should be carried out on antecedent of brand loyalty.

Furthermore, the main argument in the favor of practical implication of this research is, in Pakistan the

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out comes of the marketing efforts of different brands are quite different from the rest of the world. Antecedents of brand loyalty are less likely to be the same in developing and developed countries, alike, owing to the economic differences.

As far as the beverage industry is concerned, the linkages between customer loyalty and the growth of the industry require to be paid a bit of attention, as in the recent years the beverage industry of Pakistan has observed a significant growth. As per the interview of Chairman Pakistan Beverage Manufacturers Association, the beverage industry has an annual growth of 15 percent, with its current size of over 120 million cases per annum. Additionally, the industry has the potential of growth increase in the coming next three to five years, at the same rate (Pakistan and Gulf Economist PAGE).

The rapid current growth rate of the beverage industry brings about certain opportunities as well as threats to the marketers. The opportunity to enhance the market share due to the growth may be threatened by the increase in the potential new entrants, jumping in to cash in the present opportunities. With the increase in the competition, the firms need to vigilantly invest in order to enhance the brand loyalty, as the easy availability of the alternatives may cause the customers to switch the brands; thus providing the rationale of the study, which may help the marketers find out more about the antecedents of the brand loyalty in order to enhance theirs, to retain and win the greater market share.

## 2 Literature Review

### 2.1 Brand Loyalty

The concept of brand loyalty has been proven to be of importance for the marketers and the researchers alike over the past few years. The brand loyalty can better be defined by the help of multidimensional theory of brand loyalty. Theory argued that the brand loyalty is a biased evaluation of a brand and behavioral as well as emotional tendency towards a brand. The antecedent of brand loyalty describes how a customer begins as a new customer and reaches the stage of brand loyalty, going through certain stages. [Aurier and Séré de Lanauze \(2011\)](#) described that through brand evaluation, customers manifest attitudinal loyalty which ultimately has a significant and positive impact on the relationship quality. Literature suggests that brand trust has a great effect on the brand loyalty, such that, brand trust and equity ultimately result in attitudinal and behavioral loyalty ([Taylor et al., 2004](#)). Similarly, a study by [Matzler et al. \(2008\)](#) also documented brand trust and equity lead to loyalty, attitudinal and behavioral; while the risk aversive behavior

of the customers also plays a vital role.

Along with the above mentioned factors, several studies have also focused on the personal characteristics and internal customer behavior of the customers, in order to gauge brand loyalty. Demographics have also believed to have an impact on the loyalty towards a brand. A study by [Møller Jensen \(2011\)](#) found that men were less likely to be brand loyal as compared to women, thus establishing that gender variable is one of the important factors to be considered while exploring the antecedents of brand loyalty. He further suggested that this could mean that the companies need to pay a special attention while advertising for men, in order to create brand loyalty. In a study focusing on the personality traits of brand, [Louis and Lombart \(2010\)](#) found a significant relationship between brand traits for coca cola with customer trust, commitment and attachment to the brand. Similarly, another study found that not all the dimensions of brand personality affect the brand loyalty; only extraversion is believed to have a significant impact on the loyalty ([Lin, 2010](#)). [Liu and Hu \(2011\)](#) posited that another factor which may add to the brand loyalty is the complementary products, which help enhancing the output of the core product and brand loyalty to the core brand as well. Pricing strategy also plays a certain role in the phenomenon. While studying the high priced brands, it is often noticed that brand loyalty is negatively associated with the price; whereas, for low price brands the pricing, deal promotions and the brand loyalty are positively related ([Al-Rousan and Mohamed, 2010](#)). As far as the market share and the strengths are concerned, the store brands can do so on the basis of the pricing strategy ([Luis Méndez et al., 2011](#)). Another study suggested that the usage level of the customer has an impact on the loyalty towards that particular brand ([Liu, 2007](#)); as well as the positive word of mouth, which seem to be a great source of the enhanced loyalty. [Hur et al. \(2011\)](#) established that brand dedicated groups spread the positive word of mouth about the brand amongst their peers, which enhances the purchase intention and ultimately brand loyalty.

Brand attachment affects the customer belief that the customer is better off with the particular brand than the other brand so as to make profitable transactions, and ultimately their dedicated conduct leads to brand loyalty ([Belaid and Temessek Behi, 2011](#)). In the context of customer loyalty, researchers have explored the dimensions of loyalty such as trust, perceived quality and cost of switching. [Aydin and Özer \(2005\)](#) in their study explored the antecedents of the customer loyalty. Their study results predicted that trust, perceived service quality and perceived switching cost seem to be the detrimental factors of customer loyalty. Dedicated customers are willing to pay more for a brand they recognize than the ones they don't ([Srivastava, 2011](#)). Loyalty has also been studied from the stand point of the

employees, which is known as internal branding. Punjaisri and Wilson (2011) established that when employees have been attached to the brand for an extended time, it is important for the firm to start focusing on internal branding as it may have a positive effect on employee commitment and on brand loyalty. Similarly, the service quality of the satisfied and committed employees will be better leading to the enhanced brand loyalty (Abu-ELSamen et al., 2011).

## 2.2 Perceived Quality

Perceived quality is how a customer believes the quality of the product will be based on his or her perception. Studies found that while managing brands, managers should focus on certain ten attributes, one of which is the quality (Herstein and Zvilling, 2011). Although, customers want a good quality product at a low price, it is however quite tricky to assess what quality a customer perceives in a brand and to meet that perceived criteria (Grunert, 2005). The features of the product comprise of intrinsic and extrinsic signals of quality. The intrinsic signals influence the perceived quality; therefore, literature suggests that managers should work hard to reduce the gap between perceived and the observed quality of the product in order to enhance the customer loyalty (Nath Sanyal and Datta, 2011). Another study found that brand credibility also enhances the perceived quality which consequently affects the purchase intention, whereas, pleasure seeking behavior has believed to moderate the relationship between these variables (Hyun Baek and Whitehill King, 2011). Similarly, Akram et al. (2011) posited that when a brand is believed to be globalized, it can affect the purchase intentions by paying attention to certain features such as perceived quality and prestige, as per the perception of the customer. According to social exchange theory the human relationships are based on the cost benefit analysis. So it can be argued that the customer is likely to become loyal with the brand in which they perceived quality. The research conducted by Nguyen et al. (2011) showed that there is positive relationship between customers brand loyalty and perceived quality.

*H1. Perceived quality has significant and positive impact on brand loyalty.*

## 2.3 Brand Awareness

Consumer knowledge is deemed to be important factor in determining the choice of products and services the same as awareness is deemed important factor in recall and recognition. The brand awareness is a basic degree of knowledge which an individual has about a brand for example at least he recognizes the brand or recalls the brand in some state of deprivation. Keller

(2003) argued that the brand awareness is the customer knowledge on the basis of which he can identify the category of brand and know about the need which it satisfies.

According to a study conducted by Alamro and Rowley (2011), brand awareness is an antecedent of brand preference, and awareness was furthermore categorized into two groups, i.e. controllable and non-controllable communication. They further established that in order to enhance the brand preference amongst customers, it is important to deliver to the customers. For which, advertising is believed to be the best tool, as it is used to introduce, recall and remind the customer about your product. Aravindakshan and Naik (2011) observed that when advertising is halt the ad remain in recollection of the buyers for twenty one days. Channel members also have significance in the value creation course by marketers. Gupta et al. (2010) observed that the brand knowledge is not sufficient for the resellers in a selection decision they also use to compare the brand with its delegate. Radder and Huang (2008) argued that in creating the awareness of a brand of high involvement products, the role of advertising is more important than low involvement products. Perception is the primary ingredient of consumer attitude and conduct. Rajagopal (2007) reported that it is very important what buyer perceives about a brand, so the firms are required focus and spend on the effective communication to make their consumers aware about unfamiliar brands and as a result they will be likely to make buying decision about those brands.

The customer usually sticks to the brand of which they are aware. According to social learning theory it can be argued that the brand awareness can contribute in the brand loyalty. Brand awareness basically comes from society may be from words of mouth or some other IMC tool. The type of product or service matters a lot in consumer decision. Another study on university brand posited that the customer is more likely to make a choice based on their awareness than on the reputation of the university, where different brands have same reputations (Brewer and Zhao, 2010). Nguyen et al. (2011) in their study established that brand awareness is positively linked with brand loyalty.

*H2. Brand awareness has significant and positive impact on brand loyalty.*

## 2.4 Brand Image

Brand image has been considered an important factor in the plethora of brand literature. Studies show that brand image can help a firm enhance its standing in the market by focusing on having a strong image (Lee et al., 2011). Similarly, in a study by Li and Hung (2009) which focused on school image, their results posited that the loyalty of the parents is more

likely to be linked with the school image. Likewise, when a brand is expended by company, apart from the perceived quality, the fit between the parent brand and its extension also affect the overall brand image (Müge Arslan and Korkut Altuna, 2010). Brand image has been studied as a moderator in literature of brand loyalty. Although the current study is considering the antecedents like quality and awareness, brand image is also an important factor while focusing on brand loyalty. When a company promises the deliverance of better quality with an intention to enhance the loyalty, brand image also comes into the play. Brand image has been believed to have a positive relationship with the brand loyalty (Bianchi and Pike, 2011). Likewise, brand image has a significant impact on the perceived quality of the said brand as well (Chan-Olmsted and Cha, 2008). Hsieh and Li (2008) claimed that positive brand image will help a company to meet the perception of the customer.

Hence it can be hypothesized that:

*H3. Brand image has moderating role in relationship between perceived quality and brand loyalty.*

*H4. Brand image has moderating role in relationship between brand awareness and brand loyalty.*

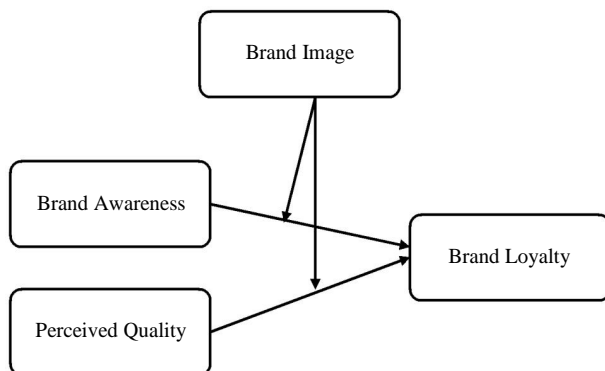


Figure 1: Conceptual Framework

### 3 Research Methodology

#### 3.1 Sample and Data Collection

The aim of the current study was to examine a few antecedents of brand loyalty, such as brand awareness, perceived quality, especially focusing on the moderating role of brand image. In order to achieve the above objective quantitative method is used for data analysis. The population was students, consumers and employees. The study is descriptive in nature. Our research was a quantitative research in which we have done non probability sampling. Structure question-

naire was used by using convenience sampling technique, because through this technique researcher is able to gather a large amount of information easily at very low cost. The respondent participates voluntarily and made sure that their answers will be confidential and will only be used for this investigation. In order to narrow down the focus of the study, soft drinks, such as Pepsi, Coca Cola, Sprite and 7Up were chosen as a focused brand. Questionnaires were distributed to 150 respondents out of which 103 were usable with 86% response rate. Out of the 130 respondents, 78 were males and 52 were females. The data were collected from Islamabad and Rawalpindi. Majority respondents fall between 18 and 35 years. The questionnaires were distributed by hand to different students, employees, and consumer and from some users online data were also collected who had access to internet.

#### 3.2 Measurement

Data were collected using already developed questionnaires. In order to measure brand image, a three item questionnaire developed by Aaker (1996) and Martinez and De Chernatony (2004) was adopted. Perceived quality was measured adopting a 3 item questionnaire developed by Dodds et al. (1991) and Zeithaml (1988). Brand loyalty was measured adopting a 4 item questionnaire by Jacoby and Kyner (1973) and brand awareness, scales developed by Aaker (1996) consisting of 4 items were adopted. The five-point Likert scale was used to measure the relationship between dependent and independent variable from strongly disagree to strongly agree.

### 4 Results

The data were analyzed using SPSS, through correlation and regression analyses. The results are discussed further.

Table 4.1 shows the correlation matrix between the variables. As per the results, the correlation between brand awareness and loyalty is positive and significant at 0.23. Similarly, brand image and loyalty also have a positive and significant correlation (0.46). The rest of the variables also show positive and significant correlation, showing that, perceived quality and brand loyalty are positively correlated at .40, whereas, awareness and brand image are correlated at a significant value of .043. Likewise, awareness and perceived quality are also positively correlated at .50 and ultimately, brand image and perceived quality were also significantly correlated at .48.

The regression results in Table 4.2 indicate that there is a no significant relationship between brand awareness and brand loyalty, i.e.  $b=0.06$ ,  $t=.69$ ,  $p=.41 > .000$ ; whereas, perceived quality happens to have

Table 4.1: Correlation Analysis

	Brand Loyalty	Brand	Brand Image	Perceived
Brand Loyalty	1	.23**	.46**	.40**
Brand Awareness	.23**	1	.43**	.50**
Brand Image	.46**	.43**	1	.48**
Perceived	.40**	.50**	.48**	1

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

Table 4.2: Regression Analysis

Predictors Model	Brand Loyalty			
	R <sup>2</sup>	$\beta$	T value	Significance P
Brand Awareness	0.24	0.06	0.69	0.41
Perceived Quality	0.24	0.46	5.00	0.00

Predictors: PQ, BA

Dependent Variable: BL

Table 4.3: Regression Analysis of Moderation

Predictors Step 1	Brand Loyalty			
	R <sup>2</sup>	$\beta$	T value	Significance
Brand Awareness	0.10	0.23	3.83	0.00
Perceived Quality	0.25	0.50	6.54	0.00
Brand Image*Quality	0.32	-0.14	-0.25	0.80
Brand image*Awareness	0.37	-0.42	-0.84	0.39

Predictors: PQ, BA

Dependent Variable: BL

a significantly positive relationship with brand loyalty at  $p=0.000$  ( $b = .46$ ,  $t=5.0$ ). Similarly, for the moderation, moderated regression results were found to be non significant at  $p=0.80$  ( $b = -.14$ ,  $t = -.25$ ) therefore, hypothesis three is not supported, i.e. brand image moderates the relationship among perceived quality and brand loyalty. Likewise, our hypothesis four that brand image moderates the relationship between brand awareness and loyalty has also been rejected with  $p = .39$  ( $b = -.42$ ,  $t = -.84$ ).

## 5 Discussion

The main aim of the study was to explore the concept and implication of brand loyalty in Pakistan. Although, brand loyalty has been a well studied construct, but the cultural and consequent socioeconomic differences among cultures rendered it important to take up the study in the Pakistani context, which hasnt

been done yet. The results of hypothesis 1 are quite similar to earlier studies for example (Nguyen et al., 2011). Result of H2 was not as we have hypothesized. It may have different reasons, like awareness is a basic degree of knowledge about some brand but loyalty is the continuous preference and commitment towards a brand and a biased evaluation of a brand. It may involve experience for customer to reach loyalty. Or it may also be argued that there may be a series of mediating variables in this relationship.

The study results indicated that brand awareness causes 25.4% variation in brand loyalty with quite low degree of confidence, whereas, the negative and insignificant relationship was found between these two constructs. It is because; basic degree of knowledge must depend on source of knowledge. Majority population of Pakistan lives in a joint family system cannot be ignored, where our decisions are heavily influenced by the word of mouth. Similarly, as far as the selection of brands is concerned, people tend to pay

attention to the general opinion of their friends, families, colleagues, etc. This creates awareness amongst people regarding brands, therefore leading to the purchase intention. But this however may not necessarily be enough to be loyal to that specific brand. But on the other hand, people in Pakistani culture don't rely too heavily on the advertisement before making a purchase decision, due to the high level of uncertainty avoidance. So consequently, it can be sufficient to deduce that brand loyalty is not only affected by the brand awareness but is influenced by how customers achieve that level of awareness and through which means. Furthermore perceived quality brings about 25.4% variations in brand loyalty with 100% confidence interval. The results indicate a positive relationship which has been significantly proven and supported by previous literature as well.

The moderating role of brand image on the relationship of brand awareness and brand loyalty as well as on the relationship of perceived quality was not proved. As per the results, brand image not only mediates the relationship between brand loyalty and its antecedents, it simultaneously moderates the said relationships. Literature provides ample evidences that brand image moderates the relationship between brand loyalty and its antecedents, both in service and manufacturing industries alike.

## 5.1 Managerial implications

This study and its results may prove useful for the managers while making decisions regarding the loyalty programs. The results suggest that it is imperative for the management to pay special attention to the advertising strategy which helps shape, mould and create the perception of the product in the eyes of the customers. As these findings suggest, perceived value of the product is of utmost importance and should play a vital role in formulating the awareness and loyalty programs.

## 5.2 Limitations

No study is without any certain limitations, therefore, so isn't the current study. The sample was drawn using convenient sampling technique which puts a limitation of the study, and hampers the generalization of the results on all regions. The data were also collected in one lag, which may be unable to cater to the changing market conditions over the period of time.

Lastly, data were collected from 4 major cities of the country. Data from across the country and region may provide more comprehensive and probably slightly different picture.

## 5.3 Future Research

For future research in the same area, a larger sample size, with data from across the country may help get a clearer picture and more generalized results. Similarly, same constructs should be explored in other product categories, from across the industries to gauge how different industries respond to the same constructs. Ultimately, the study can be expanded from merely focusing on the antecedents of the brand loyalty to the outcomes as well.

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# Protege Locus of Control and Psychosocial Mentoring: Mediating Role of Mentoring Initiation and Moderating Role of Trust

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**Abstract.** This study examined proteges work-locus of control, mediating role of mentoring initiation and moderating role of trust in mentor for successful psychosocial mentoring relationships at work. Data were collected using a self report questionnaire from a sample of 79 employees of a large commercial bank in Pakistan. Results of multiple regression analysis indicated that proteges external work-locus of control was negatively associated with psychosocial mentoring. However proteges mentoring initiation and trust on mentor did not play mediating and moderating role respectively in this relationship. The study discusses implications for theory and practice.

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## 1 Introduction

Psychosocial mentoring was identified as a mentoring function in which mentors used counseling, acceptance and confirmation, and friendship to enhance proteges perceptions of competence, esteem and success at work (Kram, 1983). According to O'Neill (2005), mentors provided counseling by discussing and advising on proteges personal and professional issues empathically, acceptance and confirmation by demonstrating respect for and trust in proteges personal and professional competencies, and friendship by informal interaction and voluntary discussion of topics both related or unrelated to work. According to Ghosh (2014), proteges high in proactivity, learning goal orientation, gender similarity with mentor, ethnic similarity with mentor, perceived similarity with mentor, age difference, cognition and affect based trust with mentor, informality of mentoring and perceived organizational support were more likely to receive psychosocial mentoring. Psychosocial mentoring had indirect rather than direct impact on proteges turnover intentions (Scandura and Schriesheim, 1994). Affective organizational commitment was found to mediate the relation of psychosocial mentoring and turnover intention (Craig et al., 2013). Organizational cooperative context and organic type were found positively related to psychosocial mentoring O'Neill (2005). Proteges reported more psychosocial mentoring from mentors internal rather than external to their organization (Baugh and Fagenson-Eland, 2005). Proteges in same race and same sex mentoring dyads reported receiving more psychosocial support than those in different race and different sex mentoring dyads (Thomas, 1990). No significant differ-

ence was found in psychosocial mentoring provided by male and female mentors (Ensher and Murphy, 1997). Psychosocial support was found an important ingredient in expatriate success in international assignments (Shen and Kram, 2011). Proteges and their mentors perceive that mentors have a responsibility to provide psychosocial function however proteges receive less psychosocial function in formal mentoring relationship (Haggard and Turban, 2012). Psychosocial mentoring resulted into higher protege resilience against stress at work (Kao et al., 2014).

Meta-analysis of mentoring studies by Ghosh (2014) revealed heterogeneity of the effect size for the relationship between protg external locus of control and psychosocial mentoring thus implying possibility of presence of moderators such as relational factors (e.g. gender similarity, ethnic similarity, perceived similarity, self disclosure, self disclosure, age difference, and trust etc.) and or structural factors (e.g. mentoring type, supervisory status, perceived organizational support, and mentoring phase etc.). Thus there was a need to identify and examine factors at work that moderate the relationship between protg locus of control and psychosocial mentoring. There was also a need to confirm that mentoring initiation that mediated association of general locus of control and overall mentoring earlier (Turban and Dougherty, 1994) also mediated work specific locus of control and a sub function of mentoring called psychosocial mentoring in Pakistani context.

In this study, we shall examine impact of protgs work locus of control on psychosocial mentoring received with mediating effect of mentoring initiation and moderating effect of protgs trust on mentor. We are

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taking trust as a moderator because it has already been found to positively and significantly influence mentoring relationships (Chun et al., 2010; Richard et al., 2009) and therefore it is highly likely that it will moderate the relationship of locus of control and psychosocial mentoring function. We are taking mentoring initiation as mediator because it has been found to mediate general locus of control and mentoring relationship (Turban and Dougherty, 1994) and therefore likely to mediate between specific work locus of control and psychosocial function of mentoring. We are not aware of any study that examined moderating role of trust on mentor and mediating role of mentoring initiation over the relationship between protégé external work locus of control and psychosocial mentoring.

This study adds to the literature of mentoring firstly by examining the direction of relationship between protégés external work locus of control and psychosocial mentoring i.e. positive or negative, secondly by examining the moderating effects of trust and thirdly by examining mediating effects of mentoring initiation on this relationship. It also instigates inquiry into exploring factors that moderate and mediate this developmental relationship. It also informs the practitioners about the fruitfulness of developing proactivity-enhancing and trust-enhancing interventions between mentoring dyads at workplace.

Two perspectives exist in mentoring research i.e. mentoring as received by protégés and mentoring as provided by mentors (Qian et al., 2014). This study follows the first perspective. Social exchange theory (Blau, 1964) and expectancy theory (Vroom, 1964) shall serve as the underpinning theoretical perspectives for this study in which social and psychological factors determine success of such developmental relationships. Mentoring is also an exchange relationship and thus makes it available for study under social exchange theory.

## 2 Literature Review

### 2.1 Protégés work locus of control and psychosocial mentoring

Protégés work locus of control (Spector, 1988) was defined as a personality trait characterized by the perception of the degree to which a protégé could influence events and their outcomes at work. The construct of protégés locus of control was drawn from attribution theory (Heider, 1958). Later Rotter (1966) introduced differentiation of internal and external locus of control. However we shall be using context specific sub dimension of general locus of control i.e. work locus of control (Spector, 1988) which has been found to yield stronger relationship with work related criteria than general locus of control (Wang et al., 2010).

A protégé with internal locus of control shall perceive that events and their outcomes are mostly under personal control. Whereas a protégé with external locus of control shall perceive that events and their outcomes are mostly out of personal control i.e. under control of other influential persons, events or ultimately luck. Externals were more likely than internals to react with depression after a conflict (Hahn, 2000). Hence they are unlikely to initiate help seeking behavior even after facing personal and professional problems due to their beliefs of lower personal control. Protégés core self evaluation (a construct composed of locus of control, neuroticism, generalized self efficacy and self esteem) was found positively related to their report of mentoring received (Hu et al., 2014). Noe (1988) found that career planning and effective utilization of mentor (by discussing issues & placing queries) led protégés to report receiving greater psychosocial mentoring than those who did not. Thus protégés with external locus of control are less likely to effectively utilize mentors due to their lack of personal control beliefs and thus likely to report lesser psychosocial mentoring.

*H1. External locus of control at work will be negatively and significantly related with psychosocial mentoring.*

### 2.2 Mediating role of protégés mentoring initiation between work locus of control and psychosocial mentoring

Initiation of mentoring can be defined as a proactive behavior in which protégés take initiative to identify and engage a mentor to obtain career and psychosocial support (Turban and Dougherty, 1994). Kram (1983) described mentoring initiation as the first phase of mentoring relationship characterized by initiative taken by either or both protégé and mentor. Our focus is proactive behavior of protégés for initiating mentoring and not the proactive behavior of mentors seeking protégés for mentoring provision.

Proactive personality was found positively related to psychosocial mentoring through voice behavior of protégés (Liang and Gong, 2013). Protégé willingness to learn was positively related to mentors willingness to provide mentorship (Allen, 2004). One study found that mentors responded positively to their protégé initiatives and encouraged their explorative behaviors (Janssen et al., 2013). Interaction opportunities influenced mentoring received through mediation of mentoring initiation by protégés (Aryee et al., 1999). Turban and Dougherty (1994) found that protégés can impact the mentoring received through their active engagement in initiation of mentoring behavior. They also found that the protégés with certain personality traits including internal locus of control were more likely to engage in initiation of mentoring behavior and in turn

more likely to receive mentoring. This implies that proteges with external locus of control are less likely to engage in initiation of mentoring behavior. Their study did not distinguish between different mentoring functions received i.e. career, psychosocial and role modeling. Therefore we can deduce that proteges with external locus of control are less likely to engage in initiating psychosocial mentoring behavior and in turn or less likely to receive psychosocial mentoring.

*H2. Mentoring initiation mediates the relationship of proteges external locus of control and psychosocial mentoring at work.*

### 2.3 Moderating role of trust between work locus of control and psychosocial mentoring

Trust between protege and mentor can be defined as the degree of confidence in and intention to act upon on the statements, behaviors and decisions of each other (McAllister, 1995). The construct of trust between mentor and protege was derived from social exchange theory (Blau, 1964). It is also a source of successful social exchange relationships at (McAllister, 1995). There is evidence that trust can reduce opportunism in social relationships (Williamson, 1979) thus it can lead to long term relationships. More trust was observed between same sex mentoring dyad than between cross sex mentoring dyad (Thomas, 1990). Lower traditionality (submission to authority) and higher trust of protege in mentor, when combined, strengthened the negative relationship of mentoring and job related stress (Qian et al., 2014).

The beliefs of proteges with external locus of control, that events and their outcomes are not under their control, are likely to prevent them from help seeking behaviors when facing personal and professional issues. Thus they are unlikely to share their emotions with and seek psychosocial support from others especially those whom they do not trust. Interpersonal comfort between mentor and protege plays an important role in successful mentoring relationship (Allen et al., 2005). Trust is likely to improve interpersonal comfort. Also proteges perceptions of lower control over events and their outcomes result into lower self esteem. Trust in formal mentor has been found to be positively related with proteges psychological meaningfulness, psychological availability and psychological safety of work (Li and Tan, 2013). Psychosocial mentoring is a mechanism to regain higher level of self esteem (Kram, 1983). Thus trust gives proteges the confidence to approach their mentor for receipt of psychosocial support. Proteges trust in mentor has been found to be positively related to mentoring in formal mentoring relationships (Chun et al., 2010; Richard et al.,

2009). Therefore it is likely that high trust in mentor shall weaken the negative relationship of proteges external locus of control and psychosocial mentoring at work. Moderately strong relationship was observed between trust and risk taking (Colquitt et al., 2007). Psychosocial mentoring involves risk taking on part of proteges due to disclosure of professional and personal problems of which mentors can take advantage if they want to. Thus we can propose proteges high in external locus of control are more likely to receive psychosocial mentoring in presence of trust than in its absence.

*H3. Trust on mentor shall moderate the negative relationship between external locus of control at work and psychosocial mentoring in such a way that high trust on mentor shall weaken the relationship.*

## 3 Methodology

### 3.1 Population and Sample

We collected primary data from employees working in a large commercial bank using a self report questionnaire. We contacted respondent personally at workplace and telephonically. Data were obtained off site. Personal and professional relations were used for identifying respondents and encouraging their participation. Respondents were requested to report information on all four variables in the questionnaire and return through expeditious means including courier service. The respondents were alerted to select responses based on their actual thinking and avoid wishful thinking. They were also guided to think about their relations with a mentor from whom they routinely take advice on their personal and professional issues. We confirmed the respondents complete anonymity of information. 200 questioners were distributed out of which 82 were received back and 79 were usable. Thus the response rate was 41%. 67% of respondents were within age bracket of 26-33 years. 52% of respondents were male and 48% were female. 67 percent of the respondents were Master degree holders. 83% of respondents were having experience less than 13 years.

We selected a banking organization for data collection because nature of work was relatively complex, stressful and working hours are long thus requiring junior employees to seek more mentoring from senior employees. Also education level and English language competency of bank employees was better than employees in other sectors that were helpful in accurate understanding of items. We explained purpose of our study and requested the bank to provide a list of employees. A list of 300 officers and executives of the bank was obtained. We used simple random sampling to identify 200 respondents. Data were collected during May and June 2015. Filled questionnaires were reviewed for completeness.

### 3.2 Measures

This questionnaire included standardized instruments to measure protégés work locus of control, mentoring initiation, trust on mentor and psychosocial mentoring. Work locus of control described employees control beliefs over events and their outcomes at work (Spector, 1988). A 16 items instrument developed by Spector (1988) was used to measure protégés work locus of control. Sample items included: A job is what you make of it., If employees are unhappy with a decision made by their boss, they should do something about it., and Most people are capable of doing their jobs well if they make the effort. Cronbachs Alpha of these 16 items was 0.67. Mentoring initiation describes proactive behavior of protégé to begin mentoring relation for career and psychosocial support (Turban and Dougherty, 1994). It was measured by using a four-item instrument developed by Turban and Dougherty (1994). Sample items included: sought to become acquainted (familiar) with higher-level managers., made personal efforts to have my work become visible to higher level managers., taken the initiative to seek counseling and advice from higher level managers., and taken the initiative to find mentors in the organization.. Permission for using the instrument was obtained from the developer. Cronbachs Alpha of these 4 items was 0.77. Trust describes the level of confidence and intention to act upon on the statements, behaviors and decisions of each other (McAllister, 1995). Trust on mentor was measured by using 10 out of 11 items of an instrument developed by McAllister (1995) with sample items such as I can talk freely with mentor about difficulties I am having at work and know that (s)he will want to listen., We would both feel a sense of loss if one of us was transferred and we could no longer work together., and If I shared my problems with mentor, I know (s)he would respond constructively and caringly. Cronbachs Alpha of these 10 items was 0.81. We dropped 1 item due to its lower relevance with protégés trust on mentor. The item, Given this persons track record, I see no reason to doubt his / her competence and preparation for the job is more relevant for measuring mentors trust on protégé. Psychosocial mentoring describes a mentoring function in which mentors used counseling, acceptance and confirmation, and friendship to enhance protégés perceptions of competence, esteem and success at work (Kram, 1983). Noe (1988) developed a 29 item instrument for measuring mentoring that included items for measuring three functions i.e. career, psychosocial and role modeling. We adopted 11 items of this instrument measuring psychosocial function only with sample items such as My mentor has encouraged me to try new ways of behaving in my job., My mentor has demonstrated good listening skills in our conversations., and My mentor has shared personal experiences as an alternative perspective to my prob-

lems.. Cronbachs Alpha of these 16 items was 0.90. A five point Likert scale was used for all items with 1 representing Strongly Disagree and 5 representing Strongly Agree.

## 4 Results

### 4.1 Correlation

Statistical analysis including correlations and regressions were run on the data using SPSS. We controlled age, gender, qualification and experience.

Table 4.1 presents correlation among the model variables. Work-locus of control was negatively, weakly and significantly associated with psychosocial mentoring ( $r = -0.27$ ,  $p \leq .05$ ). It was negatively, moderately and insignificantly associated with mentoring initiation ( $r = -0.49$ ,  $p = .68$ ). Mentoring initiation was positively, strongly and significantly associated with psychosocial mentoring ( $r = -0.50$ ,  $p \leq .01$ ). Trust on mentor was positively, strongly and significantly associated with psychosocial mentoring ( $r = 0.87$ ,  $p \leq .01$ ). Work-locus of control was negatively, moderately and significantly associated with trust on mentor ( $r = -0.35$ ,  $p \leq .01$ ). These bivariate associations lend tentative support for all hypotheses except for mediation due to insignificant association work-locus of control with mentoring initiation (the mediator).

### 4.2 Regression Analysis

Following are the results of regression analysis:

Hypothesis 1 predicted that external locus of control shall be negatively and significantly associated with psychosocial mentoring. We used regression analysis to test this hypothesis. In step 1, we introduced control variables in the model. In the second step, we regressed psychosocial mentoring on external locus of control. Table 4.2 shows results of regression analysis excluding t-test value and its p-value. Value of slope coefficient ( $\beta = -0.43$ ) indicates that a unit change in locus of control shall yield a 0.43 units change in psychosocial mentoring in opposite direction. The coefficient of determination  $R^2$  ( $R^2 = 0.12$ ) indicates that control variables and locus of control when combined explain 12% of variation in psychosocial mentoring. Whereas change in coefficient of determination ( $\Delta R^2 = 0.06$ ) indicates that locus of control alone accounts for 6% variation in psychosocial mentoring. And finally value of t statistic above 2 ( $t = -2.28$ ) at significance level below 0.05 ( $p = .02$ ) supports our hypothesis. Thus hypothesis 1 has been supported statistically.

Hypothesis 2 predicted that mentoring initiation shall mediate the association of external locus of control and psychosocial mentoring. Initially insignificant correlation was found between locus of control and psy-

Table 4.1: Correlations and Reliabilities <sup>a</sup>

Correlations	1	2	3	4
1. Work locus of control	1 (.67)			
2. Mentoring initiation	-0.05	1 (.77)		
3. Trust on mentor	-.35**	.47**	1 (.81)	
4. Psychosocial mentoring	-.27*	.50**	.87**	1 (.90)

<sup>a</sup>  $n = 78$ ; alpha reliabilities are mentioned in parentheses. \*\*  $p < .01$  (two tailed); \*  $p < .05$  (two tailed).

Table 4.2: Results of Regression Analysis for Outcomes

Predictor	Mentoring initiation			Psychosocial Mentoring		
	$\beta$	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$
External locus of control						
Step 1:						
Control variables		0.01			0.06	
Step 2						
External locus of control	-0.08	0.01	0.002	-0.43*	0.12*	0.06*
Mentoring initiation						
Step 1:						
Control variables					0.06	
Step 2						
Mentoring initiation				0.43*	0.30*	0.23*

\*\*  $p < .01$  (two tailed); \*  $p < .05$  (two tailed).

Table 4.3: Results of Mediated Regression Analysis for External locus of control

Predictor	Psychosocial Mentoring		
	$\beta$	$R^2$	$\Delta R^2$
External locus of control			
Step 1			
Control variables		0.06	
Step 2			
Mentoring initiation	0.43***	0.30***	0.25***
Step 3			
External locus of control	-0.40**	0.35**	0.30**

\*\*\* $p < 0.001$  (two tailed); \*\*  $p < .01$  (two tailed); \*  $p < .05$  (two tailed).

chosocial mentoring with  $r = -0.49$  and  $p = .66$ . We further ran regression to test mediation and used the suggestions of a [Baron and Kenny \(1986\)](#). The first condition of this method required that significant association must hold between path (a) i.e. independent variable and proposed mediator. To test this first condition, we regressed mentoring initiation on external locus of

control. In first step, we introduced control variables. In step 2, we regressed mentoring initiation on external locus of control. Results in Table 2 indicate that locus of control and mentoring initiation were negatively and insignificantly associated ( $\beta = -0.08$ ;  $p = .71$ ). The t-test value was also less than 2 ( $t = -0.36$ ). This means that first condition for mediation is not fulfilled and medi-

ation does not exist statistically. Although it was not required to test other three conditions of mediation but we decided to check these conditions to reassure rejection of mediation hypothesis. Significant associations were observed between in path (b) i.e. mediator and dependent variable, path (c) i.e. between independent and dependent variable, and path (c) i.e. between independent and dependent variables after controlling mediator as indicated in Table 4.3, and hence mediation was absent statistically. Thus hypothesis 2 was not accepted statistically.

Hypothesis 3 predicted that trust on mentor shall play the role of moderator and shall reduce the negative association of external work locus of control and psychosocial mentoring. We used moderated regression analysis to test this hypothesis by determining interactive effects of proteges locus of control and trust on mentor on psychosocial mentoring. In first step, we introduced control variables to the model. In second step, we controlled both independent variable and moderator i.e. locus of control and trust on mentor. In the third step, we introduced the interaction term of locus of control trust on mentor and regressed psychosocial mentoring on this interaction term. Value of slope coefficient ( $\beta = 0.20$ ) in Table 4.4 indicates that a unit change in interaction term (locus of control trust on mentor) shall yield a 0.20 units change in psychosocial mentoring in same direction. The coefficient of determination  $R^2$  ( $R^2 = 0.79$ ) indicates that control variables and interaction term (locus of control trust on mentor) when combined explain 79% of variation in psychosocial mentoring. Whereas change in coefficient of determination ( $\Delta R^2 = 0.006$ ) indicates that interaction term alone accounts for 0.6% variation in psychosocial mentoring. And finally value of t statistic below 2 ( $t = 1.47$ ) at significance level below 0.05 ( $p = .14$ ) shows that interaction term is not significantly associated with psychosocial mentoring. Thus moderating effect of trust on association between locus of control and psychosocial mentoring is statistically insignificant and inconclusive. Thus our hypothesis 3 of moderation was not accepted statistically in this sample.

To summarize the results, our main hypothesis 1 is accepted due to statistical significance. However mediating hypothesis 2 and moderating hypothesis 3, despite having strong theoretical support are not accepted due to statistical insignificance of results for current sample. At this point, one fact deserves attention i.e. introduction of moderator has changed direction (from negative to positive) and magnitude (from  $\beta = -0.43$  to  $\beta = 0.20$ ) of our main hypothesis although at insignificant level ( $p = .14$ ). Thus trust on mentor has moderated the relationship in hypothesized direction but the effect is statistically insignificant and thus inconclusive.

## 5 Discussion

The objective of current study was examining the association between proteges external locus of control and psychosocial mentoring at work place with mediating role of proteges mentoring initiation and moderating role of trust on mentor. Our findings have led us to three main conclusions. First, we found a statistically significant negative association between external work locus of control and psychosocial mentoring. It was consistent with findings of Hu et al. (2014) in which they found positive relation between proteges core self evaluations and receipt of mentoring. Core self evaluation is a higher order construct that includes locus of control (Judge et al., 2003). Higher core self evaluations imply higher locus of control which is equivalent to lower external locus of control. Higher locus of control in core self evaluations is likely to yield higher receipt of mentoring ceteris paribus and similarly our lower external locus of control also leads to higher psychosocial mentoring which is a specific function of mentoring. Although apparently these two similar relations have opposite directions to each other but these have logically the same direction. It is likely that trait of high external locus of control reduces proteges' motivation to seek psychosocial mentoring support due to lower expectation of success in beginning and maintaining the mentoring relationship and of success of such relationship in resolving proteges psychosocial issues.

Second, we found that mentoring initiation did not act as a mediator between external locus of control and psychosocial mentoring. This was strange in view of previous findings of Turban and Dougherty (1994) in which mentoring initiation significantly mediated relationship between locus of control and mentoring. We could not establish statistical significance of relationship between external locus of control and mentoring initiation despite presence of strong theoretical support. The statistical insignificance of relationship might be explained by high uncertainty avoidance culture of respondents. Respondents of our sample belong to a national culture that is high on uncertainty avoidance (Hofstede and Hofstede, 1991). It is likely that respondents might be avoiding uncertainty stemming from exposure of their professional and personal problems to a potential mentor. This uncertainty might be leading to a fear of becoming victim of opportunistic behavior of potential mentor which might be preventing them from initiating psychosocial mentoring relationship.

Third, we found that trust moderated the association of locus of control and psychosocial mentoring in hypothesized direction but its impact was not statistically significant leading to rejection of our third hypothesis. The statistical insignificance of trust for relationship of locus of control and psychosocial mentoring might be explained by low individualistic culture

Table 4.4: Results of Moderated Regression Analysis for External locus of control

Predictor	Psychosocial Mentoring		
	$\beta$	$R^2$	$\Delta R^2$
External locus of control			
Step 1			
Control variables		0.06	
Step 2			
External locus of control	0.07	0.78	0.71***
Trust on mentor	1.07***		
Step 3			
Locus of control Trust on mentor	0.2	0.79	0.006

\*\*\* $p < 0.001$  (two tailed); \*\* $p < .01$  (two tailed); \* $p < .05$  (two tailed).

of respondents i.e. trust is not relevant for respondents belonging to cultures of low individualism. Respondents of our sample come from a national culture that is low on individualism (Hofstede and Hofstede, 1991). This possible explanation is supported in literature in which high level of individualism was found to be negatively correlated with trust in peers (Kiffin-Petersen and Cordery, 2003). This finding underscores that trust gains more importance in individualistic cultures than in collectivist cultures. Thus trust might be an important moderator for relationship of locus of control and psychosocial mentoring between members of a highly individualistic culture but not for our respondents who come from a culture of low individualism.

## 5.1 Theoretical and Practical Implications

Our findings provide further support to existing literature of mentoring that proteges personality impacts mentoring relationships. Main theoretical contribution of our study is that important mediating and moderating mechanisms such as proteges mentoring initiation and trust on mentor respectively lose their relevance under certain conditions and thus become ineffective in explaining this vital relationship. This study opens inquiry into discovering conditions under which certain mediating and moderating factors are more relevant than others for this relationship. It also instigates search of more relevant mediating and moderating factors for this relationship. Several practical implications can be derived from our findings. Employees with external locus face difficulty in finding psychosocial support at work that has potential of hindering their effective functioning at work. Managers can provide psychosocial support to such employees to keep them working at optimal performance level. Organizations can provide formal and informal opportunities to resolve psychosocial issues of such employees. Such opportunities can include professional psy-

chological help, indoor sports, and outdoor events for social interaction of junior and senior employees. Senior employees can be trained and encouraged to provide psychosocial support in form of counseling to employees facing psychosocial issues at work.

## 5.2 Limitations and Recommendations

Our study is not without certain limitations. First, a limitation was that all respondents came from same service setting i.e. banking. Their characteristics and work activities differ significantly from employees of other kinds of work setting e.g. production. Specifically their work was high in complexity, interdependence, and mental labor. They were more educated, recruited through more formal process, and used to receive formal functional trainings. Therefore the results of this study cannot be generalized to other work settings without caution.

Second, common method error was a concern as we collected data on all variables from only proteges through self report measures. However we believe that it is not a significant concern as all scales were measuring perception of proteges on items that were not judgmental of their performance and thus none of the scales appeared to motivate respondents to inflate their responses.

A third limitation was cross sectional design of the study. Longitudinal design could not be implemented due to limitation on resources of time, money and personnel for administering the study over multiple periods. Therefore results of this study should not be interpreted as causation.

Future researchers need to look for more relevant factors that could mediate and moderate this relationship in cultures that are different on cultural dimensions. Ghosh (2014) provides a useful list of factors that can be explored for potential mediation and moderation effects in this relationship. Greater sample size



as well as diversified sample can be employed by including employees of other industries. Longitudinal study design contains good potential to infer causal relations. This relationship can be studied under different theoretical framework such as psychological contract breach.

This is the first empirical study to examine the mediation and moderation effects on relationship between external work locus of control and psychosocial mentoring from proteges perspective. Although no significant evidence of mediation and moderation was found in this study but these results are tentative and thus require further investigation with a larger and diverse sample. Also studies with mediators and moderators more relevant to this relationship and more relevant to a specific culture have potential of furthering mentoring theory and practice.

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## CONTRIBUTOR'S GUIDELINES

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