

# Organizational Culture and Performance of Higher Educational Institutions: the Mediating Role of Individual Readiness for Change

Awais Imam<sup>1\*</sup>, Dr. Abdus Sattar Abbasi<sup>2</sup>, Dr. Saima Muneer<sup>3</sup>, Mubashar Majeed Qadri<sup>4</sup>

1 Virtual University of Pakistan

2 COMSATS Institute of Information Technology

3 Ali Institute of Education

4 Virtual University of Pakistan

\* corresponding author: awaisimam@gmail.com

## Abstract

This study is an enquiry to find out relationship between organizational culture and organizational performance of higher educational institutions (HEIs) of Pakistan with mediating role of individual readiness for change. The bottom line of the research is to determine the significance of organizational culture and individual readiness for change in academic leaders that leads to heightened performance of educational institutions. Further addition to the study is comparison of different dimensions of organizational culture with organizational performance with mediating role of individual readiness for change. A structured questionnaire was used to collect the data from 307 doctorate degree holding faculty members working in universities/HEIs of Pakistan. The findings from this research supported that individual readiness for change acts as partial mediator between the relationship of organizational culture and organizational performance. The study's findings provide understanding about the relationship between different dimensions of organizational culture with organizational performance. Study helps in providing guidelines to the policy makers and leadership of universities that how organizational culture and individual readiness for change can help to elevate organizational performance, increase productivity and enhance quality research output to secure respectable place in international research arena and ranking of HEIs.

**Keywords:** Organizational culture, Individual readiness for change, Organizational performance, Higher Education Institutions.

## 1. Introduction

Humans are conscious knowledgeable beings and we strive and thrive in a world where knowledge is rapidly changing, therefore we learn, adapt and change and move towards learning organization. Learning is also a pertinent function of universities which impart knowledge in students by changing them to better persons through behavior enhancement and modification as per defined norms and values i.e. culture. Hence, the essential outcome of learning is change and this is a vital function of culture mechanism. Organizational culture has been both blamed and credited for organizational failure and successful performance (Vallett, 2010). The purpose of the research was to find the relationship between organization culture and performance with mediating role of individual readiness for change. The study underhand has explored the dimensions of organization culture of higher education institutions (HEIs) / Universities/Degree Awarding Institutes (DAIs) of Pakistan; it has also explored the individual readiness for change with respect to performance. At micro level, the study at hand focuses on individual readiness for change and performance whereas mission, adaptability, involvement and consistency traits were taken as predictors of organizational culture. The focus of study was HEIs/universities and there are not many studies regarding HEIs, nor as an organizational perspective which addresses the variables of organizational culture, organizational performance and individual readiness for change at the same time. Therefore, a comprehensive study of the organizational culture and individual readiness for change and performance in Pakistan can contribute to serve the purpose of developing the higher education sector and research in this domain. Moreover, this study has called for theoretical propositions and assertions in multitude ways of understanding organizational culture and readiness for change and performance of HEIs of Pakistan. It is also expected that it can yield improvement in our global understanding of the link between dimensions of organizational culture and performance with mediating role of individual readiness for change.

### 1.1 Rationale of the study

Whatever the reasons are, in order to change an organization must be in the state of readiness for change (Rowden, 2001) and many researches Backer (1995), Eby et al. (2000) have established that for organizational change, members of the organization must be prepared and ready for the change, i.e. they should not fear the change. Rowden (2001) professed that to become a learning organization an organization should be in the state of constant readiness and Bernerth (2004) suggested that employee readiness is a critical factor in successful change and organizational performance. With reference to change, McNabb and Sepic (1995) purported that if a organizational culture is not conducive to the acceptance of change then change will most likely to fail despite of

proactive plans and desires, therefore organizational culture is the breeding ground of change. Hence it is pertinent to understand the relationship of organizational culture and individual readiness for change.

The Global Competitiveness Index (GCI) ranked nations on the criteria of performance and provides a competitive index to the world. According to GCI 2011–2012, Schwab (2010), Pakistan ranked 118 in the world. GCI assesses performance of the countries on different parameters. Efficiency is one of the parameter of GCI, and it discusses Higher Education as an important dimension of that parameter. Pakistan ranked 100 on Efficiency, 122 on Higher Education and quite low on sub-dimensions of Higher Education and Training. Whereas, Human Development Index (HDI) of UNDP ranked Pakistan 145 among all UN states. HDI has three dimensions and one of the dimensions is education. Therefore it is very pertinent to focus and understand the culture of higher education institutions of Pakistan and improve Pakistan ranking in GCI and HDI.

### **1.2 Research Question**

The problem to be focused in this study is to identify and provide an in-depth understanding of the organizational culture and organizational performance of HEIs of Pakistan with mediating role of individual readiness for change, which can help in improving the ranking of Pakistan in Global Competitiveness Index (GCI) and Human Development Index (HDI).

## **2. Literature Review**

### **2.1 Organizational Culture**

The notion is explained by Pettigrew (1979a) as it is manifest in the shared fundamental values, beliefs, attitudes, assumptions and behaviors of members of an organization. Culture is considered to be the significant factor in (1) build and unifying capabilities (Day, 1994), (2) shaping norms and procedures (Deal and Kennedy, 1982, Jarnagin and Slocum, 2007), (3) providing solutions, and eventually become a source of competitive advantage (Barney, 1986, Hall, 1993).

Organizational culture is the character of an organization, and that character interacts and communicates the mind set and behavior of an organization which eventually leads to good or bad performance (Schein, 1984). Many scholars have studied the properties, levels, dimensions and characteristics of organizational culture from different perspectives. In early works, Hofstede (1991) segregated culture into four dimensions (1) collectivism vs. individualism, (2) power distance (3) uncertainty avoidance and (4) masculinity vs. femininity. Later on Schein (1992) outlined three levels of culture (1) explicit behavior, (2) signs and (3) shared values. There are many different ways how culture can be assessed. For example, Beacher (1989) differentiate four types of culture on the basis of the type of authority (collegial, hierarchical, anarchical and political). Fjortoft and Smart (1994) differentiate organizational cultures on the basis of dynamism and externalism. Whereas Denison (2000) has grouped culture into four traits: (1) mission, (2) adaptability, (3) involvement and (4) consistency. Denison's model suggests four broad cultural traits help capabilities of an organization for coordinating and integrating internal resources and also adapting to the external environment. Organizations always strive to find a perfect balance between them. Each trait is measured by three dimensions.

### **2.2 Involvement Trait**

Involvement trait creates a sense of ownership and responsibility and further increases capacity and autonomy (Denison, 2000). It helps in the implementation of decisions. It facilitates flexibility and internal integration (Denison, 1984, Denison and Mishra, 1995, Fisher, 1997). Organizations high on involvement trait have more favorable employee attitudes.

To achieve organizational performance, an organization must broadcast empowerment, build teams, and develop the capability of employees (Becker, 1964, Lawler, 1996, Likert, 1961). Employees should feel that they have a part to play in the system. To achieve the involvement, employees should feel that they have some input in the decision making, their voice can be heard, and organizational goals are directly linked with their work (Spreitzer, 1995). Hence, involvement trait indices are (1) Empowerment, (2) Team Orientation, and (3) Capability Development.

### **2.3 Consistency Trait**

The consistency trait defines the values and system that are the basis of a strong culture. It provides a central source of integration, and coordination (Denison, 2000). It focuses on commonly accepted beliefs, norms and values. It is expected to enhance efficiency, effectiveness and performance by reducing control mechanisms and hence facilitating communication, coordination and costs reduction (Seashore, 1954, Fisher, 1997). Organizations are effective because they have strong culture which is highly consistent, agreed upon, coordinated and integrated (Davenport, 1993, Saffold, 1988). Consistency is an influential source of internal integration and stability which springs from common frame of mind and conformity (Senge, 1990). Hence, consistency trait indices are (1) Coordination and Integration, (2) Agreement, and (3) Core Values.

### **2.4 Adaptability Trait**

The adaptability trait refers to the organizations ability to translate the demands of the business environment in to

action (Denison, 2000). In the same manner, Yilmaz and Ergun (2008) contended that adaptability facilitates the conversion of customer expectations and external requirements into organizational processes. It improves the organization's ability to cope the volatility in environment. Hence, it can be viewed as predictor of organization's ability to build new innovations, market development and it also serves as defensive capacity for unexpected threats. According to Kanter (1983) it is most difficult to change well integrated organizations. External adaptation and internal integration are often at odds. Adaptability is driven by customers, risk taking, experience, and learning from mistake (Nadler and Francisco, 1998, Senge, 1990). Adaptable organizations continuously in the state of learning and always strive to enhance their systems to provide value to their customers (Stalk, 1990). Hence, adaptability trait indices are (1) Creating Change, (2) Customer Focus, and (3) Organizational Learning.

### **2.5 Mission Trait**

The mission trait reflects the organizations ability to define a meaningful long term direction that provides employees with a sense of focus and common vision of the future (Denison, 2000). It is based on external focus, stresses on stability and capability to give an organization purpose, meaning and strategic direction. A clear vision, goals and strategic objectives provides sense of direction and purpose which makes an organization successful (Mintzberg, 1987, Ohmae, 1983, Hamel, 1996). Change in organization mission leads to change in organization culture (Schein, 1990). It focuses on contradiction of internal integration and external adaptation at same moment of time (Hatch, 1993, Schein, 1990). Hence, mission trait indices are (1) Strategic Direction and Intent, (2) Goals and Objectives, and (3) Vision.

### **2.6 Individual Readiness for Change**

It has been defined and conceptualized in many ways. Bernerth (2004) suggested that "Readiness is more than understanding the change, readiness is more than believing in the change, readiness is a collection of thoughts and intentions toward the specific change effort" (p. 40). Whereas, Backer (1995) suggested that it involves with employees beliefs, intentions, attitudes and capability towards the need of change which eventually translate into organizational capability to change. Therefore, readiness is a state of mind with acceptance about the need. It is a cognitive predecessor of support or resistance to change and its value is not fixed. Backer (1995) further argued that change can occur even in the condition of low readiness but probability of successful change is low because low readiness for change is subjected to active resistance or low motivation to change. Therefore, high readiness for change leads to successful change. In terms of readiness for change, the proposed study will cover several aspects of change which employees possess. These aspects include resisting, participating and promoting change. With three aspects of attitudes toward change: resisting, participating, and promoting, the instrument provides a comprehensive situational analysis. Promoting and participating allows us to know which groups of people initiate the change. The resistance aspect allows us to know what situation a person is in, and what potentially contribute to resistance. Knowing this will ensure the success of organization development efforts.

### **2.7 Organizational Performance**

According to Daft (2009) "it is the extent to which an organization has successfully attained its goals". Choi (2002) assessed organizational performance from the eyes of its members. Studies of the performance of business firms have often used such financial measures as return on assets (Bloom and Milkovich, 1998, Westphal, 1999). The common relatively "objective" or quantifiable measures of performance rarely exist, making it difficult to compare organizations on performance measures. For this reason, the study used measures of perceived performance. The limitations of perceptual data in assessing organizational performance have been well recognized (Huselid, 1995). Objective and perceptual measures of organizational performance, however, have often been found to be positively related to each other (Kirkman and Rosen, 1999), and previous studies of organizational performance have also used perceptual measures (Brewer and Selden, 2000).

### **2.8 Link of Organizational Culture, Individual Readiness for Change and Organizational Performance**

What is the end result of all this change-related ability or readiness for change? Drawing on implementation theory, the most proximal outcome is likely to be effective implementation and better performance (Klein and Sorra, 1996). Therefore readiness of change can predict performance. Although many factors contribute to the speed and performance with which organizations move now a days (Damanpour, 1991), creating readiness for change has been regarded as particularly critical (Jansen, 2000, Kanter, 1983, Simon, 1996, Holt et al., 2007). Since, culture is the character of an organization, and that character interacts and communicates the mind set and behavior of an organization which eventually leads to good or bad performance (Schein, 1987) and addition to this McNabb and Sepic (1995) suggested that conducive culture is required to accept the change and therefore it is important to understand the relationship of organizational culture and readiness for change. The link between organizational culture and performance has been studied by many scholars (Denison, 2000, Hofstede, 1991, Pettigrew, 1979b, Quinn and Rohrbaugh, 1981). The more recent and authenticated work on organizational culture and performance has been done by Kotrba et al. (2012), which clearly established the relationship of organizational culture and performance.

### 3. Research Hypotheses

**H1:** Individual readiness for change has significant mediating role between the positive relationship of organizational culture and organizational performance of HEIs of Pakistan.

**H2:** Individual Readiness for change has significant mediating role between the positive relationship of consistency trait of organizational culture and organizational performance of HEIs of Pakistan.

**H3:** Individual readiness for change has significant mediating role between the positive relationship of adaptability trait of organizational culture and organizational performance of HEIs of Pakistan.

**H4:** Individual readiness for change has significant mediating role between the positive relationship of mission trait of organizational culture and organizational performance of HEIs of Pakistan.

**H5:** Individual readiness for change has significant mediating role between the positive relationship of involvement trait of organizational culture and organizational performance of HEIs of Pakistan.

#### 3.1 Theoretical Framework

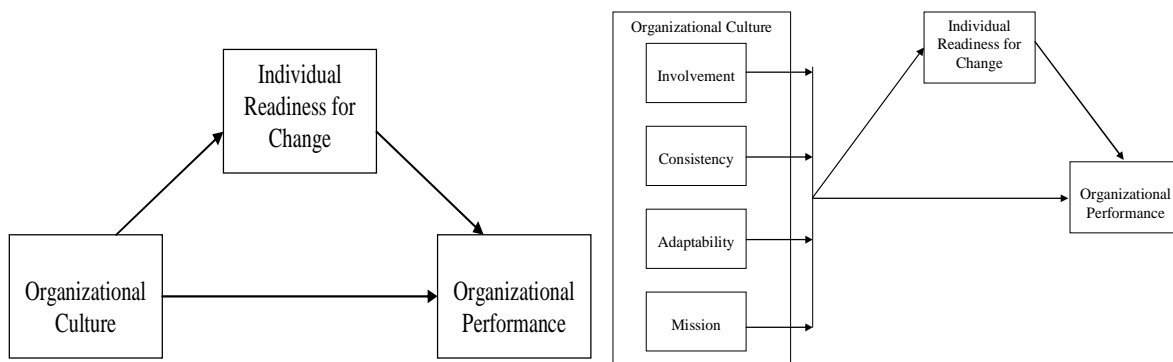


Figure 1. Theoretical framework of the

Figure 2. Detail theoretical framework.

#### 4. Instruments of the Study

In this study three instruments were used. Organization culture was measured by (Denison, 2000). Whereas, individual readiness for change was measured (Hanpachern et al., 1998). Organizational performance was measured using the scale of (Kim et al., 2005).

##### 4.1 Sample and Data Collection

Data was collected with the help of structured questionnaire. Simple random sampling technique was used. Respondents for the study were Phd faculty members of HEIs of Pakistan and 500 respondents were randomly selected from the Universities/DAIs. 360 out of 500 questionnaires were received. Later inspection resulted in 307 analyzable questionnaires. Respondent follow up was at most 2 times, which resulted in 61.4% usable response rate. The rationale of selecting only faculty members was (a) they are the official position holders; (b) they are the one who can influence organizational rules, regulations; (c) direction; (d) implementation; (e) performance (Obenchain et al., 2004). This perspective was also confirmed by Schifirnet (1997) who viewed that "faculty members are not merely the subject specialists but their personality and interactions also create and build organizational culture". Budd (1996) also argued that faculty is a key element in the organizational culture of the university and the faculty tends to be the most permanent members of the organization, certainly more permanent than any generation of students and, at this point in time, more permanent than university administrators.

##### 4.2 Validity and Reliability

CFA (Confirmatory Factor Analysis) was used to ensure the validity of the scales. As rule of thumb cut off value item factor loading less than .4 is followed. No items were dropped from the scale. Cronbach Alpha of each scale was measured to establish the reliability. Alpha values of all scales were greater than .5 which is greater than the general acceptable level of .5 (Nunnally and Bernstein, 1978). Hence, all scales confirmed the reliability standards.

#### 5. Results and Findings

All hypotheses were tested according to Baron and Kenny (1986) standards of testing mediation. Following abbreviations were used for the variables of the study: organizational culture (Cul), organizational performance (Per), individual readiness for change (Roc), involvement (Inv), consistency (Con), adaptability (Ada), mission (Mis).

**H1: Individual readiness for change has significant mediating role between the positive relationship of**

**organizational culture and organizational performance of HEIs of Pakistan.**

For the mediation analysis, it was established that the predictor (organizational culture) was related to the outcome (organizational performance) which is the (Step 1). The standardized regression coefficient (B = .668) associated with the organizational culture on organizational performance was significant ( $p < .05$ ). Therefore Path c was significant, and hence condition of mediation in Step 1 was met.

Table 1. Testing Mediator Effect of Roc (MV) on Per (DV) and Cul (IV)

Testing Steps of Mediation	B	SE	F	R <sup>2</sup>	Decision
Step 1 (path c) Outcome: Per <sup>1</sup> Predictor: Cul <sup>2</sup>	.668	.73	83.871	.213	.000 < .05
Step 2 (path a) Outcome: Roc <sup>3</sup> Predictor: Cul	.186	.047	15.656	.046	.000 < .05
Step 3 (paths b and c') Outcome: Per Mediator: Roc(path b)	.257	.088	47.236	.232	.000 < .05
Predictor: Cul(path c')	.620	.074			.000 < .05

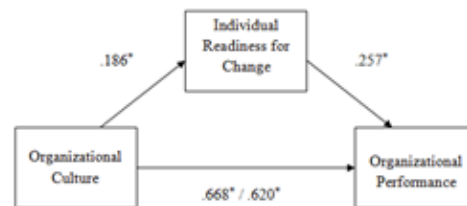


Figure 3 Mediator effect of Roc on Per and Cul

To ascertain that organizational culture was related to individual readiness for change (the hypothesized mediator), the regression coefficient (B = .186) was significant at the ( $p < .05$ ) and hence the condition of Step 2 was met (significant Path a). Now to test whether individual readiness for change was related to organizational performance; organizational performance regressed simultaneously on both of individual readiness for change and the organizational culture variables (Step 3). The coefficient, with the relation between individual readiness for change and organizational performance (controlling for organizational culture), was also significant (B = .257,  $p < .05$ ). Hence, the condition for Step 3 was met (significant Path b). The third regression analysis also provided an estimate of Path c', the relation between organizational culture and organizational performance, controlling for individual readiness for change. When path c' is zero i.e. independent variable becomes insignificant then there can be a complete mediation. Nevertheless, Path c' was (B = .620) also significant ( $p < .05$ ), though it was smaller than Path c which was .668. Since, after controlling for individual readiness for change, the effect of organizational culture appeared to be significant and smaller i.e. from (B = .668) to (B = .620) and hence reduced by  $.668 - .620 = .048$  which supported partial mediation. Results suggesting that even if individual readiness for change was one mediational pathway, it is certainly not the only one. Since product of paths a, and b equals to  $c - c'$ , the significance of the difference between c and c' can be calculated by testing the significance of the products of paths a, and b which determines the significance of indirect effect. To check the significance of indirect effect, Sobel test was performed which eventually determined the significance of partial mediation. The results of Sobel test indicated that indirect effect = .048 was statistically significant ( $z = 2.3027, p < .05$ ). Hence, it is established that individual readiness for change partially mediates the positive relationship of organizational culture and organizational performance and hypothesis was accepted.

It is important to know the amount of mediation. It was calculated from the standard of (Shrout and Bolger, 2002) which is  $ab/c$  ( $.048/.668 = .071$ ) and it was obtained from unstandardized coefficients. Thus about 7.19% of the total effect of organizational culture on organizational performance is mediated by individual readiness for change. However to find the accurate proportion of total effected mediated, a sample size of 500 is at least required (MacKinnon et al., 1995) but the study also has considerable sample size of 307. It is important to note that it only describes the amount of mediation rather than significance of mediated effect. Issue of multicollinearity was addressed by a statistical tool called Tolerance and VIF (variance inflation factor). For step 1 and step 2, there was no issue of multicollinearity ( $VIF = 1, Tolerance = 1$ ). For step 3, there was also no issue of multicollinearity as well ( $VIF = 1.051, Tolerance = .951$ ) and Durbin Watson = 1.816 which indicated that there was no problem of autocorrelation.

**H2: Individual readiness for change has significant mediating role between the positive relationship of consistency trait of organizational culture and organizational performance of HEIs of Pakistan.**

For the mediator analysis, it was established that the predictor (consistency) was related to the outcome (organizational performance) which is the (Step 1). The standardized regression coefficient (B = .544) associated with the consistency on organizational performance was significant ( $p < .05$ ). Therefore Path c was significant, and hence condition of mediation in Step 1 was met.

To establish that consistency was related to individual readiness for change (the hypothesized mediator), the regression coefficient ( $B = .134$ ) associated also was significant at the ( $p < .05$ ) and hence the condition of Step 2 was met (significant Path a). Now to test whether individual readiness for change was related to organizational performance, organizational performance regressed simultaneously on both of individual readiness for change and consistency variables (Step 3). The coefficient, with the relation between individual readiness for change and organizational performance (controlling for consistency), was also significant ( $B = .310$ ,  $p < .05$ ). Hence, the condition for Step 3 was met (significant Path b). The third regression analysis also provided an estimate of Path  $c'$ , the relation between consistency and organizational performance, controlling for individual readiness for change. When path  $c'$  is zero i.e. independent variable becomes insignificant then there can be a complete mediation. Nevertheless, Path  $c'$  was ( $B = .502$ ) and also significant ( $p < .05$ ), though it was smaller than Path  $c$  which was  $.544$ . Since, after controlling for individual readiness for change, the effect of consistency appeared to be significant and smaller i.e. from ( $B = .544$ ) to ( $B = .502$ ) and hence reduced by  $.544 - .502 = .042$  which supported partial mediation. Moreover, the results of Sobel test indicated that indirect effect =  $.042$  was statistically significant ( $z = 2.336$ ,  $p < .05$ ). Hence, it is established that individual readiness for change partially mediates the positive relationship of consistency and organizational performance and hypothesis was accepted. The amount of mediation was  $ab/c$  ( $.042/.544 = .077$ ). Thus about 7.72% of the total effect of consistency on organizational performance is mediated by individual readiness for change.

Testing Steps of Mediation	B	SE	F	R <sup>2</sup>	Decision
Step 1 (path c) Outcome: Per Predictor: Con	.544	.070	59.846	.161	.000 < .05
Step 2 (path a) Outcome: Roc Predictor: Con	.134	.044	9.214	.026	.003 < .05
Step 3 (paths b and c') Outcome: Per			37.038	.191	.000 < .05
Mediator: Roc(path b)	.310	.089			.001 < .05
Predictor: Con(path c')	.502	.070			.000 < .05

Table 2. Testing mediator effect of Roc (MV) on Per (DV) and Con (IV)

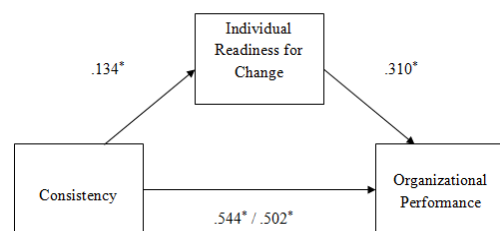


Figure 4. Mediator effect of Roc on Per and Con

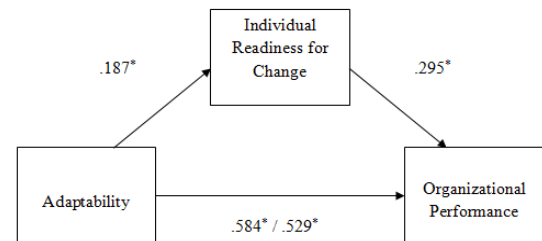
Issue of multicollinearity was addressed by a statistical tool called Tolerance and VIF. For step 1 and step 2, there was no issue of multicollinearity ( $VIF = 1$ ,  $Tolerance = 1$ ). For step 3, there was also no issue of multicollinearity as well ( $VIF = 1.030$ ,  $Tolerance = .971$ ) and Durbin Watson = 1.787 which indicated that there was no problem of autocorrelation.

**H3: Individual readiness for change has significant mediating role between the relationship of adaptability trait of organizational culture and organizational performance of HEIs of Pakistan.**

For the mediator analysis, it was established that the predictor (adaptability) was related to the outcome (organizational performance) which is the (Step 1). The standardized regression coefficient ( $B = .584$ ) associated with the adaptability on organizational performance was significant ( $p < .05$ ). Therefore Path  $c$  was significant, and hence condition of mediation in Step 1 was met.

**Table 3. Testing mediator effect of Roc (MV) on Per (D) and Ada (IV)**

Testing Steps of Mediation	B	SE	F	R <sup>2</sup>	Decision
Step 1 (path c) Outcome: Per Predictor: Ada	.584	.080	52.767	.145	.000 < .05
Step 2 (path a) Outcome: Roc Predictor: Ada	.187	.050	14.045	.041	.000 < .05
Step 3 (paths b and c') Outcome: Per			32.439	.170	.000 < .05
Mediator: Roc(path b)	.295	.091			.001 < .05
Predictor:Ada(path c')	.529	.081			.000 < .05



**Figure 5. Mediator effect of Roc on Per and Ada**

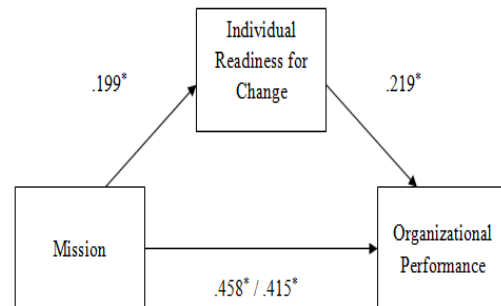
To determine that adaptability was related to individual readiness for change (the hypothesized mediator) the regression coefficient ( $B = .187$ ) associated also was significant at the ( $p < .05$ ) and hence the condition of Step 2 was met (significant Path a). Now to test whether individual readiness for change was related to organizational performance, organizational performance regressed simultaneously on both of individual readiness for change and adaptability variables (Step 3). The coefficient, with the relation between individual readiness for change and organizational performance (controlling for adaptability), was also significant ( $B = .295$ ,  $p < .05$ ). Hence, the condition for Step 3 was met (significant Path b). The third regression analysis also provided an estimate of Path c', the relation between adaptability and organizational performance, controlling for individual readiness for change. When path c' is zero i.e. independent variable becomes insignificant then there can be a complete mediation. Nevertheless, Path c' was ( $B = .529$ ) and also significant ( $p < .05$ ), though it was smaller than Path c which was  $.584$ . Since, after controlling for individual readiness for change, the effect of adaptability appeared to be significant and smaller i.e. from ( $B = .584$ ) to ( $B = .529$ ) and hence reduced by  $.584 - .529 = .055$  which supported partial mediation. Further, the results of Sobel test indicated that indirect effect =  $.055$  was statistically significant ( $z = 2.4008$ ,  $p < .05$ ). Hence, it is established that individual readiness for change partially mediates the positive relationship of adaptability and organizational performance and hypothesis was accepted. The amount of mediation was calculated from the  $ab/c$  ( $.055/.584 = .094$ ). Thus about 9.42% of the total effect of adaptability on organizational performance is mediated by individual readiness for change. Issue of multicollinearity was addressed by a statistical tool called Tolerance and VIF (variance inflation factor). For step 1 and step 2, there was no issue of multicollinearity ( $VIF = 1$ ,  $Tolerance = 1$ ). For step 3, there was also no issue of multicollinearity as well ( $VIF = 1.046$ ,  $Tolerance = .956$ ) and Durbin Watson = 1.936 which indicated that there was no problem of autocorrelation.

**H4: Individual readiness for change has significant mediating role between the positive relationship of mission trait of organizational culture and organizational performance of HEIs of Pakistan.**

For the mediator analysis, it was established that the predictor (mission) was related to the outcome (organizational performance) which is the (Step 1). The standardized regression coefficient ( $B = .458$ ) associated with the mission on organizational performance was significant ( $p < .05$ ). Therefore Path c was significant, and hence condition of mediation in Step 1 was met.

Testing Steps of Mediation	B	SE	F	R <sup>2</sup>	Decision
Step 1 (path c) Outcome: Per Predictor: Mis	.458	.057	64.434	.172	.000 < .05
Step 2 (path a) Outcome: Roc Predictor: Mis	.199	.035	32.425	.093	.000 < .05
Step 3 (paths b and c') Outcome: Per			35.483	.184	.000 < .05
Mediator: Roc(path b)	.219	.093			.019 < .05
Predictor: Mis(path c')	.415	.060			.000 < .05

**Table 4. Testing mediator effect of Roc (MV) on Per (DV) and Mis (IV)**



**Figure 6. Mediator effect of Roc on Per and Mis**

To determine that mission was related to individual readiness for change (the hypothesized mediator), the regression coefficient (B = .199) associated also was significant at the (p < .05) and hence the condition of Step 2 was met (significant Path a). Now to test whether individual readiness for change was related to organizational performance, organizational performance regressed simultaneously on both of individual readiness for change and mission variables (Step 3). The coefficient, with the relation between individual readiness for change and organizational performance (controlling for mission), was also significant (B = .219, p < .05). Hence, the condition for Step 3 was met (significant Path b). The third regression analysis also provided an estimate of Path c', the relation between mission and organizational performance, controlling for individual readiness for change. When path c' is zero i.e. independent variable becomes insignificant then there can be a complete mediation. Nevertheless, Path c' was (B = .415) and also significant (p < .05), though it was smaller than Path c which was .458. Since, after controlling for individual readiness for change, the effect of mission appeared to be significant and smaller i.e. from (B = .458) to (B = .415) and hence reduced by .458 - .415 = .043 which supported partial mediation. Moreover, the results of Sobel test indicated that indirect effect = .043 was statistically significant (z = 2.1518, p < .05). Hence, it is established that individual readiness for change partially mediates the positive relationship of mission and organizational performance and hypothesis was accepted. The amount of mediation was calculated from the ab/c (.043/.458 = .094). Thus about 9.39% of the total effect of mission on organizational performance is mediated by individual readiness for change.

Issue of multicollinearity was addressed by a statistical tool called Tolerance and VIF (variance inflation factor). For step 1 and step 2, there was no issue of multicollinearity (VIF = 1, Tolerance = 1). For step 3, there was also no issue of multicollinearity as well (VIF = 1.106, Tolerance = .904) and Durbin Watson = 1.842 which indicated that there was no problem of autocorrelation.

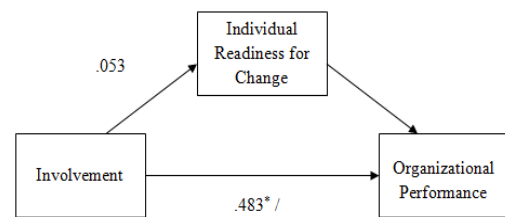
**H5: Individual Readiness for change has significant mediating role between the positive relationship of involvement trait of organizational culture and organizational performance of universities/DAIs of Pakistan.**

For the mediator analysis, it was established that the predictor (involvement) was related to the outcome (organizational performance) which is the (Step 1). The standardized regression coefficient (B = .415) associated with the organizational culture on organizational performance was significant (p < .05). Therefore Path c was significant, and hence condition of mediation in Step 1 was met. To ascertain that involvement was related to individual readiness for change (the hypothesized mediator), the regression coefficient (B = .053) associated also was not significant at the (p > .05) and hence the condition of Step 2 was not met (insignificant Path a). Therefore, step 3 could not be performed and process of establishing mediation could not be completed due to violation of the step 2. Hence hypothesis, that individual readiness for change mediates the relationship of involvement and organizational performance, was rejected.



**Table 5. Testing mediator effect of Roc (MV) on Per (DV) and Inv (IV))**

Testing Steps of Mediation	B	SE	F	R <sup>2</sup>	Decisio
Step 1 (path c) Outcome: Per Predictor: Inv	.483	.061	63.634	.170	.000 < .(
Step 2 (path a) Outcome: Roc Predictor: Inv	.053	.039	1.852	.003	.175 > .(
Step 3 (paths b and c') Outcome: Per Mediator: Roc(path b) Predictor: Inv(path c')					



**Figure 7. Mediator effect of Roc on Per and Inv**

### 5. Conclusion

This study was focused on higher educational sector of Pakistan. HEIs are the knowledge incubators and they serve as a backbone of innovation and prosperity. Higher education also contributes in the society while providing skilled human resources as input to the industry. The result of the study provided an insight that how can the performance Pakistani universities be improved. The study depicted the strength and relationships of dimensions of both organizational culture and performance with individual readiness for change as mediator, and it is first of its kind to test these variables in this style. The study also made a significant contribution by testing mission, consistency, adaptability, and involvement with organizational performance, while individual readiness for change served as a mediator. Statistical results of the indicated that organizational culture and individual readiness for change can play a role in organizational performance. However, the individual readiness for change was proved as partial mediator and involvement trait of organizational culture resists readiness of change. The faculty who are well aware of change and culture can better perform.

### 6. Recommendations

- It was also noted that organizational culture is highly important for organizational performance which is consistent with the findings of Haque and Anwar (2012) thus it should be emphasized more.
- Moreover, statistical results indicated that individual readiness for change has the major role in effecting the organizational performance, it is therefore recommended that educationists develop a better understanding of capability of change.
- Higher educational institutions must conduct workshop and training sessions to elevate individual readiness for change.
- Consistency trait represents the strong culture of an organizational is it measured by core values, and agreement, which can become a short term predictor of organizational performance (Gordon and DiTomaso, 1992). In the long run, consistency with the current system leads to lack of innovation and limits the organization's ability to adapt to changes in the environment (Denison, 1984). This is the reason, why individual readiness for change becomes pertinent factor of adaptation and organizational performance.
- However, Gordon and DiTomaso (1992) found that culture of adaptability but not stability is also predictive of short term performance but combination of two can be most powerful. Since, interaction effects were not measured as it was not the objective of the study, therefore, the proposition of Gordon and DiTomaso demands further research.
- It is important to understand that the external environment (economic, political, social and technological) also effects the performance of an organization. Therefore, one needs to take external environment as control variable. Therefore, if lowered scores on constancy, and adaptability signify lowered performance then one should consider the other factors of external environment.
- In order to achieve high productivity from knowledge workers, educational leaders can account of promoting strong organizational culture and to identify needs of teaching staff and accordingly provide solution for those needs. All this eventually leads to preparing them and enhance organizational performance.

- Jobs in all walks of life are becoming demanding and challenging, individual readiness for change, can build up skills and competencies.
- On the theoretical side, organizational culture and individual readiness for change are strong contenders for bringing organizational performance and effectiveness.

### 7. Limitations

Self reporting response of organizational performance; concrete data of performance can produce more valid results. The results of the study cannot be generalized on manufacturing sector or banking sector organizations.

### 8. Future Research

- To further validate the hypothesized relationship, a longitudinal research study is required. Especially in case of involvement trait of organizational culture.
- Concept of organizational culture and its relation with organisational performance with mediating role of individual readiness for change can be extended to other sectors of Pakistan to get a better understanding. It will bring more generalization to the theory.
- Different cultural traits can be more significant in different industries. For instance, involvement trait was insignificant in the study, but it may be opposite in different sector.
- Whether lowered score on different traits (consistency, adaptability) signifies lowered performance or whether caused due to the direction of change occurring in the economic, political, technological and social environment.
- Interaction effect of different organizational traits should be tested with organizational culture, with mediating role of individual readiness for change.
- A comparative study can be made between public and private sector HEIs to further validate the results.
- Some other organizational variables like conflict management, organizational commitment, employee turn over can be introduced to the model.

### References

- BACKER, T. E. 1995. Assessing and enhancing readiness for change: Implications for technology transfer. *NIDA research monograph*, 155, 21-41.
- BARNEY, J. B. 1986. Organizational culture: can it be a source of sustained competitive advantage? *Academy of management review*, 656-665.
- BARON, R. M. & KENNY, D. A. 1986. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51, 1173.
- BEACHER, T. 1989. Academic Tribes and Territories: intellectual enquiry and the cultures of disciplines (Buckingham, SRHE/Open University Press).
- BECKER, G. S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, by Gary S. Becker, London.
- BERNERTH, J. 2004. Expanding our understanding of the change message. *Human Resource Development Review*, 3, 36-52.
- BLOOM, M. & MILKOVICH, G. T. 1998. Relationships among risk, incentive pay, and organizational performance. *Academy of Management Journal*, 41, 283-297.
- BREWER, G. A. & SELDEN, S. C. 2000. Why elephants gallop: Assessing and predicting organizational performance in federal agencies. *Journal of public administration research and theory*, 10, 685-712.
- BUDD, J. M. 1996. The organizational culture of the research university: Implications for LIS education. *Journal of education for library and information science*, 154-162.
- CHOI, B. 2002. *Knowledge Management Enablers, Processes, and Organizational Performance: An Integration and Empirical Examination*. Korea Advanced Institute of Science and Technology.
- DAFT, R. L. 2009. *Organization theory and design*, South-Western Pub.
- DAMANPOUR, F. 1991. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of management journal*, 555-590.
- DAVENPORT, T. H. 1993. *Process innovation: reengineering work through information technology*, Boston, Mass.: Harvard Business School Press.
- DAY, G. S. 1994. The capabilities of market-driven organizations. *the Journal of Marketing*, 37-52.
- DEAL, T. E. & KENNEDY, A. A. 1982. Corporate cultures: The rites and rituals of corporate life. Addison-Wesley Pub. Co.(Reading, Mass.).
- DENISON, D. R. 1984. *Bringing corporate culture to the bottom line*, Periodicals Division, American Management Associations.

- DENISON, D. R. 2000. Organizational culture: Can it be a key lever for driving organizational change. *The international handbook of organizational culture and climate*, 347-372.
- DENISON, D. R. & MISHRA, A. K. 1995. Toward a theory of organizational culture and effectiveness. *Organization science*, 6, 204-223.
- EBY, L. T., ADAMS, D. M., RUSSELL, J. E. & GABY, S. H. 2000. Perceptions of organizational readiness for change: factors related to employees' reactions to the implementation of team-based selling. *Human Relations*, 53, 419-442.
- FISHER, C. J. 1997. *Corporate culture and perceived business performance: A study of the relationship between the culture of an organization and perceptions of its financial and qualitative performance*. ProQuest Information & Learning.
- FJORTOFT, N. & SMART, J. C. 1994. Enhancing organizational effectiveness: The importance of culture type and mission agreement. *Higher Education*, 27, 429-447.
- GORDON, G. G. & DITOMASO, N. 1992. Predicting corporate performance from organizational culture\*. *Journal of management studies*, 29, 783-798.
- HALL, R. 1993. A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic management journal*, 14, 607-618.
- HAMEL, G. A. 1996. *Competing for the Future*, Harvard Business School Press.
- HANPACHERN, C., MORGAN, G. A. & GRIEGO, O. V. 1998. An extension of the theory of margin: A framework for assessing readiness for change. *Human Resource Development Quarterly*, 9, 339-350.
- HAQUE, A. & ANWAR, S. 2012. Mediating Role of Knowledge Creation and Sharing between Organizational Culture and Performance: An Empirical Analysis of Pakistan's Banking Sector. *Journal of Basic and Applied Scientific Research*, 2, 3276-3284.
- HATCH, M. J. 1993. The dynamics of organizational culture. *Academy of management review*, 657-693.
- HOFSTEDE, G. 1991. *Cultures and organizations: Software of the mind*.
- HOLT, D. T., ARMENAKIS, A. A., FEILD, H. S. & HARRIS, S. G. 2007. Readiness for Organizational Change The Systematic Development of a Scale. *The Journal of applied behavioral science*, 43, 232-255.
- HUSELID, M. 1995. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 635-672.
- JANSEN, K. J. 2000. The emerging dynamics of change: resistance, readiness, and momentum. *Human Resource Planning*, 23, 53-55.
- JARNAGIN, C. & SLOCUM, J. W. 2007. Creating corporate cultures through mythopoetic leadership. *Organizational Dynamics*, 36, 288-302.
- KANTER, R. 1983. *The change masters: Innovation for productivity in the American corporation*. New York Simon and Schuster.
- KIM, E., JO, S. A., HWANG, J.-Y., SHIN, C., KIM, D. K., WOO, E. K., KIM, S.-S., SHIN, K. R. & JO, I. 2005. A survey of depressive symptoms among South Korean adults after the Korean financial crisis of late 1997: prevalence and correlates. *Annals of epidemiology*, 15, 145-52.
- KIRKMAN, B. L. & ROSEN, B. 1999. Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42, 58-74.
- KLEIN, K. J. & SORRA, J. S. 1996. The challenge of innovation implementation. *Academy of management review*, 1055-1080.
- KOTRBA, L. M., GILLESPIE, M. A., SCHMIDT, A. M., SMEREK, R. E., RITCHIE, S. A. & DENISON, D. R. 2012. Do consistent corporate cultures have better business performance? Exploring the interaction effects. *Human Relations*, 65, 241-262.
- LAWLER, A. 1996. Building a bridge between the big bang and biology. *Science (New York, N.Y.)*, 274, 912.
- LIKERT, R. 1961. *APDSI. New patterns of management*.
- MACKINNON, D. P., WARSI, G. & DWYER, J. H. 1995. A simulation study of mediated effect measures. *Multivariate Behavioral Research*, 30, 41-62.
- MCNABB, D. E. & SEPIC, F. T. 1995. Culture, climate, and total quality management: Measuring readiness for change. *Public Productivity Management Review*, 18, 369-385.
- MINTZBERG, H. 1987. Crafting strategy. *Harvard Business Review*, 65, 66-75.
- NADLER, D. & FRANCISCO, C. A. 1998. Champions of change : How CEOs and their companies are mastering the skills of radical change. *San JosseyBass*.
- NUNNALLY, J. C. & BERNSTEIN, I. 1978. *Psychometry theory*: New York: McGraw Hill Book Company.
- OBENCHAIN, M. A., JOHNSON, C. W. & DION, A. P. 2004. Innovation in higher education: The influence of organizational culture. *Christian Higher Education Journal*, 3, 1-25.
- OHMAE, K. 1983. *The mind of the strategist*, Penguin Harmondsworth.

- PETTIGREW, A. M. 1979a. On studying organizational cultures. *Administrative science quarterly*, 24, 570-581.
- PETTIGREW, T. F. 1979b. Race, ethics, and the social scientist. *The Hastings Center report*, 9, 15-8.
- QUINN, R. E. & ROHRBAUGH, J. 1981. A competing values approach to organizational effectiveness. *Public Productivity Review*, 122-140.
- ROWDEN, R. W. 2001. The learning organization and strategic change. *Advanced Management Journal*, 66, 11-24.
- SAFFOLD, G. 1988. Culture traits, strength, and organizational performance: Moving beyond 'strong' culture. *Academy of Management Review*. 13, 546-558.
- SCHEIN, E. H. 1987. Coming to a new awareness of organizational culture. *Sloan Management Review*, 25.
- SCHEIN, E. H. 1990. Organizational culture. *American Psychologist*, 45 SRC - GoogleScholar, 109-119.
- SCHEIN, E. H. 1992. *Organizational culture and leadership*.
- SCHEIN, M. 1984. New patients: how to get them and how to keep them. *Dental management*, 24, 42-3, 46.
- SCHIFIRNET, C. 1997. Changing Adults' Education. *Bucharest, Fiat Lux Printing House*.
- SCHWAB, K. 2010. The global competitiveness report 2010–2011. *Geneva, Switzerland*.
- SEASHORE, S. E. 1954. Group cohesiveness in the industrial work group.
- SENGE, P. 1990. The fifth discipline: The art and practice of the learning organization. *New York DoubledayCurrency*.
- SHROUT, P. E. & BOLGER, N. 2002. Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological methods*, 7, 422-45.
- SIMON, N. J. 1996. Meeting the challenge of change: The issue of readiness. *Competitive Intelligence Review*, 7, 86-88.
- SPREITZER, G. 1995. Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38 SRC - GoogleScholar, 1442-65.
- STALK, G. 1990. *Competing Against Time: How Time-Based Competition is Reshaping Global Mar*, Free Press.
- WESTPHAL, J. D. 1999. Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *Academy of Management Journal*, 42, 7-24.
- YILMAZ, C. & ERGUN, E. 2008. Organizational culture and firm effectiveness: An examination of relative effects of culture traits and the balanced culture hypothesis in an emerging economy. *Journal of World Business doi101016jjwb03019*, 43 SRC - GoogleScholar, 290-306.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage:

<http://www.iiste.org>

## CALL FOR JOURNAL PAPERS

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. There's no deadline for submission. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> The IISTE editorial team promises to review and publish all the qualified submissions in a **fast** manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

## MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Recent conferences: <http://www.iiste.org/conference/>

## IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

