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# Effect of Authentic Leadership on Work outcomes: Mediating role of psychological empowerment in telecommunication sector operating in Peshawar

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## ABSTRACT

The purpose of the study was to find out the relationship between authentic leadership and employee work outcomes i.e. employee's creativity, affective commitment, innovation and the main contribution in this was to introduce the mediating mechanism (psychological empowerment) through which authentic leadership is related to different outcomes. A quantitative approach was used to test the hypothesis and data was collected through standardized questionnaires from different employees of the telecom sector in Peshawar. A total number of respondents in this study was 186. This study shows a significant relationship between authentic leadership and creativity and the insignificant relationship between authentic leadership with affective commitment and innovation, thus hypotheses 1 supported and hypotheses 2 and 3 was not supported. This study aims that authentic leadership has a strong and significant correlation with employee's creativity but the insignificant correlation with affective commitment and innovation. Psychological empowerment has also a strong positive and significant correlation with creativity, affective commitment, and innovation. The present study also reveals that there is a strong and significant relationship between authentic leadership and psychological empowerment. The study found that psychological empowerment significantly mediates the relationship between authentic leadership, creativity, and innovation. Psychological empowerment partially mediates the relationship between authentic leadership with creativity while fully mediates the relationship between authentic leadership and innovation. Psychological empowerment does not mediate the relationship between authentic leadership and affective commitment. Thus hypotheses 6, and hypotheses 8 consider it was supported that psychological empowerment significantly mediates the relationship between authentic leadership and creativity, innovation.

**Key Words:** *Authentic Leadership, Psychological Empowerment, Creativity, Innovative Behavior and Affective Commitment*

## 1. INTRODUCTION

In today's dynamic environment organization needs to have a competitive advantage over competitors to survive and prosper (Busra et al, 20013). With a dramatic

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### Article info

Received June 14,2016  
Accepted Dec 24,2016  
Published Dec 26,2016

advancement in technologies, domestic and international competition, leaders have to play a vital role in building commitment of their employees with the organization, fosters creativity and innovative process (Muceldili, Turan, and Erdil, 2013). Leaders have to show Authenticity in their behavior, motivate and empower employees to take active participation in their work to achieve overall organizational goals.

Authentic leadership is the form of leadership characterized by four constructs including self-awareness, balanced processing, Internalized moral perspective and relational transparency (Kernis, 2003; Avolio and Gardner, 2004, Wulambwa, 2008). Self-awareness refers to the degree to which a leader is aware of his or her strengths and limitations, knows how others see him/ her and how he/ she impact others (Kernis, 2003). Balance processing is the degree to which a leader analyzes all the data carefully before coming to a decision (Gardner et al, 2005). Internalized moral perspective represents the degree where a leader sets highly standardized ethical and moral values and then guides actions according to those standard values (Wulambwa et al, 2008). Finally, relational transparency is the degree to which a leader presents his / her authentic self to others, openly shares information with others, and provides the opportunity to others to come up with new ideas and opinions.

Authentic leadership can influence attitudes and behaviors including organizational commitment, creativity, innovativeness, and psychological empowerment (Rego, Sousa, and Marques, 2012; Wulumbwa, Avolio, Gardner, 2008) that in turn help in achieving organizational goals and objectives. Employee's creativity can be fostered by making it a job requirement, by giving timely feedback to employees and by rewarding them on goal achievement (Stobbleir, 2011). Employee's creativity and affective commitment are enhanced, when leaders properly motivate employees (Zhou and Rin, 2011; Amabile, 1988, 1996). The employees committed to their work treat themselves as part of the organization and want to accomplish organizational objectives.

In recent years the topic (Authentic leadership and their outcomes) has gained a lot of attention from both scholars (Avolio and Gardner, 2005) and practitioners (George, 2003). Both argue that authentic leadership positively enhanced creativity, innovation and effective commitment of employees. Although the effect of authentic leadership on

employees creativity, innovation and commitment have been examined extensively in western context (Gardner, Avolio, and Wulumbwa, 2005; Wulumbwa et al, 2008 and 2010) but few studies have been conducted in Eastern context Like Pakistan.

As mentioned earlier in the introduction that creativity, innovation, and commitment have valuable employee outcomes in achieving organizational goals and objectives. A lot of studies have been conducted to examine these goal achieving sources and their relationship with authentic leadership in western context (Gardner, Avolio, and Wulumbwa, 2005; Wulumbwa et al, in 2008 and 2010) and therefore western domestic organizations and international firms are too ahead then developing countries like Pakistan due to the lack of research implementation.

In Pakistan, there are a number of national and multinational firms competing globally. So a gap exists to conduct a research study exploring the relationship between authentic leadership, creativity, innovation, effective commitment and to examine the effect of mediator variable (Psychological empowerment) in the Pakistani context. This gap has been identified by (Rego, Sousa, and Marques, 2012) and (Busra Muceldili, Haldun Turan, and Oya Erdil, 2013).

### **Objectives of the study:**

The main focus of this study was to determine the effect of authentic leadership on creativity, innovation and affective commitment. Furthermore, specific objectives of this particular study are:

- i. To investigate the relationship between psychological empowerment with creativity, innovation, and affective commitment.
- ii. To find out the mediating effect of psychological empowerment on the relationship between authentic leadership and creativity, innovation and affective commitment.

### **Hypotheses:**

H0: There is an insignificant relationship between authentic leadership and creativity.

H0: There is an insignificant relationship between authentic leadership and affective

commitment.

H0: There is an insignificant relationship between authentic leadership and innovation.

H0: There is an insignificant relationship between authentic leadership and Psychological empowerment.

H0: There is an insignificant relationship between psychological empowerment and creativity, affective commitment, innovation.

H0: Psychological empowerment insignificant mediates the relationship between authentic leadership and creativity.

H0: psychological empowerment insignificant mediates the relationship between authentic leadership and affective commitment.

H0: psychological empowerment insignificant mediates the relationship between authentic leadership and innovation.

## 2. LITERATURE REVIEW

### Authentic Leadership

The term authentic leadership first defined by (Luthans and Avolio, 2003), they used the term authentic to describe “very basic, genuine elements of positive leadership development”. Authentic leadership is positive leadership style and more accurately the highest end of leadership (Avolio and Gardner, 2005). In literature, there is no specific view to defining authentic leadership. Wulumbwa et al, 2008, defines authentic leadership "as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development" (Walumbwa et. al., 2008:94). Authentic leadership consists of four dimensions, and these four constructs are, self-awareness, balanced processing, internalized moral perspective and relational transparency. Self-awareness is the degree, to which a leader is aware of his /her strengths and limitations, know how others see him and how he/she impacts others (Kernis, 2003; Wulambwa et al, 2008). Balanced processing is the degree to which a leader analyzes all the data carefully before coming to

a decision and response to the challenges (Gardner et al. 2005, Wulumbwa et al, 2008). Internalized moral perspective refers to the degree to which a leader sets moral and ethical standards, guides actions regarding that established standards, and express decision making and behaviors with such a high standardized values (Avolio and Gardner, 2005; Gardner et al., 2005; Wulumbwa et al., 2008). Relational transparency is the degree to which leader shares information with others openly, express his/her feelings and thoughts, giving weight to other opinions and provide them an opportunity to come up with fresh ideas, challenges, and opinions ( Gardner et al., 2005; Wulumbwa et al., 2008).

### **Psychological Empowerment**

Psychological empowerment is a state or condition in which employees feel and believe that they have some responsibility and control over his work (Maynard et al., 2007). Psychological empowerment is a form of intrinsic motivation “manifested in four cognition: meaning, competence, self-determination and impact” (Conger and Conungo, 1988; Thomas and Welthouse, 1990, Spreitzer, 1995). Meaning refers to the degree to which personal values and beliefs fit a particular job demand (Halkman and Oldham, 1980). Competence refers to the abilities needed by someone to be successful at their work (Bandura, 1989). Self-determination involves autonomy and control by someone in work initiatives, regulatory and continuance (Deci, Connell and Ryan, 1989). Finally, the impact is a state where individuals feel that they can control and influence the outcome of a unit or organization (Ashforth, 1989).

### **Creativity**

Creativity in the workplace means introducing and production of useful ideas, Solutions, services and procedures (Amebile, 1988, 1997; Oldham and Comings, 1997). Problem-solving, introducing new products and services, taking advantage of business opportunities and organizational effectiveness are the goals of creativity. According to Zhou and Ren, (2011) creativity has two core elements, i.e. Novelty and usefulness. Where novelty refers to newness and usefulness refers to implementation and value. According to Hirst et al, (2011) creative individuals are more innovative and innovation

is the first step in employee's creativity. The creation of the useful and valuable product, service, idea or a process by an individual working in the organization is known as creativity (Parjanen S, 2012).

### **Innovation**

Innovation has been defined by scholars in different ways. Innovation is not only defined in the context of new product and services, but also in the context of new methods, techniques, and practices. Innovation is the use of technological and market knowledge for developing and producing products and services for customer to generate profit (Warren, Susman, 2002). Innovativeness means adopting and using a new idea or behavior (Jimenez, 2011). Innovation is too much important in gaining organizational effectiveness, success and dealing in a turbulent environment. Scholars and practitioners argued that innovativeness has been affected by five major factors, organizational factor, employees' supervisor relationship, job characteristics, group social factors and individual characteristics (West and Farr, 1989). Innovation is the process of creating a new combination of existing resources and ideas (Schumpeter, 1934).

### **Affective commitment**

Organizational commitment is a psychological state that binds an employee relationship with the organization and decides to continue membership with that organization (Allen and Meyer, 1996, Meyer et al, 2002). Affective commitment is the first and one of the core components of organizational commitment. Affective commitment refers to a psychological state where an employee feels that they are emotionally attached, identified with and involved in the organization. Affective commitment refers to the employee's emotional attachment to the organization, involved in the organization, identified with and involved in the organization (Rhoades, et al, 2001).

### **Authentic leadership and Creativity**

Different scholars have developed the relationship between different leadership styles and creativity. Researchers have studied the impact of transformational leadership, empowering leadership transactional leadership and benevolent leadership on creativity

in very detail. But a few empirical studies have been conducted to examine the relationship between authentic leadership and creativity (Rego et al, 2012).

As authentic leadership has the characteristics of full range leadership, i.e. positive psychological capacities, ethical and moral perspectives and these constructs of authentic leadership is positively related to creativity. Previous literature on organizational creativity shows that to enhance employee's creativity, managers and leaders have to show their positive aspects in the workplace (Busra et al, 20013). Authentic leaders improve positive emotions of their subordinates by creating supportive behaviors, moral standards and transparent interactions which ultimately make them more creative (Peterson et al., 2012). Previous studies have also found a positive relationship between ethical and moral perspectives and employees creativity (Valentine, 2011; Bierly, 2009). According to Walumwa et al, (2008) authentic leadership components (self-awareness internalized moral perspective, relational transparency, and balanced processing) promote creativity.

### **Authentic leadership and Innovation**

Recently there has been great interest in the effects of authentic leadership on innovation. In 1978, (Cummings and O' Connell) studied that leadership is one of the most valuable factors in organizational innovation. Empirical studies support a positive relationship between leadership style and innovations (Scoot and Bruce, 1994, Jung et al, 2003). Leader-member exchange theory suggests that the quality relationship between supervisor and subordinates is highly related to and promote innovativeness (Graen and Scandura, 1987). Previous literature shows that leader-subordinate relationship developed from (low-quality leader-member exchange) to the (high quality leader member exchange). In high quality leader member exchange relationships subordinates are allowed greater autonomy and decision latitude which are very crucial to innovative behavior (Cotgrove and Box, 1970). Relational transparency is one of the authentic leadership constructs in which a leader presents his true interior, and that is evident to the employee about leader support for innovation (Gardner et al, 2005). Due to the relational transparency construct it indirectly explains how employees see innovative culture within

a team and company (Gumusluoglu and Elsev, 2009).

### **Authentic leadership and Affective commitment**

Authentic leaders motivate and transform their followers through authentic leadership behavior and positive modeling. Positive modeling includes self-awareness, balance processing, transparency, and authentic behaviors (Avolio, et al, 2004; Gardner et al, 2005). Shamir and Eilam, (2005) argued that it is necessary to develop authentic leaders to put followers in a positive way. Researchers have conducted a lot of studies in other areas of leadership such as transformational leadership, transactional leadership, and participative leadership but few studies on authentic leadership explaining employee commitment to an organization. However, Researchers (Shamir, and Eilam, 2005; Gardner et al, 2005) argued that authentic leadership have a strong correlation with affective commitment, which describes employees identification with the organization. Relational transparency construct of authentic leadership focuses on building the strength of the follower, to enlarge their thinking capacities, to develop a balanced, positive and engaging organizational context (Ilies et al.,2005; Avolio and Gardner, 2005; wulumbwa et al, 2010b) and such a context provide psychological support, trust and crucial helpfulness for commitment (Dale and fox, 2008).

### **Psychological empowerment and Creativity**

Scholars have developed a very rich literature regarding psychological empowerment that plays an important role in predicting performance, productivity, job satisfaction and employee creativity (Sashkin, 1984). Psychological empowerment relates that how competent employees feel in work environment. Psychologically empowered employees feel more satisfied with their work, pay greater attention, show higher organizational commitment, lower intention to quit an organization and improve creativity process. Hence to explore the mediation effect of psychological empowerment, this study proposes that there is a positive relationship between psychological empowerment and creativity.

### **Psychological empowerment and Innovation**

Researchers have studied for years to investigate which leadership style is

appropriate for supporting innovativeness. Some authors argue that participative, supportive leadership is necessary to encourage innovation (Caker, 2006; Caker and Eturk, 2010) while others describe transformational leadership is the ideal one (Howeel and Higgins, 1990). Participative leadership style results in psychological empowerment that would lead to increase in innovation (Lawler, 1990). Jung, Chu, and Wu, (2003) also examine that empowerment is positively related to innovation. Psychologically empowered individuals feel that they have control over their work, autonomy, self-effective in performing their work, and these features enable people to be more innovative (Amabile and Grykiewicz, 1989; Spreitzer, 1995).

### **Psychological empowerment and Affective commitment**

Psychological empowerment and organizational commitment are closely related to each other. Psychological empowerment reflects the flow of people perceptions and attitudes to work environment in relation to the (Robinson, et al., 1994). Thus more psychologically empowered manager would be more committed to the organization. The factors of psychological empowerment like meaning and self-determination can commit people effectively (Meyer, et al., 1998). According to Bandura(2002), when the goals seem to be attainable, employees raise their psychological attachment to the mission and will lead to employee's affective commitment. An Indian scholar (Sumi jha) also linked the relationship between psychological empowerment and affective commitment through Hackman and Oldham (1976) job characteristic theory. If employees perform work, possessing certain motivating characteristics like skill variety, task identity, task significance, autonomy and feedback, employees exhibits three different psychological states; meaningfulness, responsibility, and knowledge of results. Previous literature shows that these three psychological states show a positive relationship with work motivation and organizational commitment (Eisenberger, et al, 1990; Hackman and Oldham, 1976).

## **3. RESEARCH METHODOLOGY**

The population is the inclusive group of people, things or events of interest that the researcher desires to study (Sekaran, 2000).The population for this particular study includes managerial level employees/officers working in Telecommunication firms (Ptel,

Mobilink, Telenor, Zong, Ufone and Warid) operating in Peshawar. The approximate number of managerial officers working in Peshawar region offices of telecommunication firms is 750.

The sample size for this study was one hundred and eighty-six (186) respondents from telecommunication firms operating in Peshawar. The decision of choosing the sample size is based on the sampling standard provided by Sekaran (2003). As per that standard, for a total population of 750, the number of respondents in the sample size should be at least 186. The information was collected from managerial ranked employees/officers. Moreover, the sample size was drawn using convenient sampling technique, which is one of the most commonly used sampling technique in contemporary management research. Convenient based sampling technique was used, as Khurram et al (2013) has used convenient sampling technique and this study was conducted in the Pakistani context.

### Theoretical framework

The relationship between dependent variables (Creativity, Innovation, and Affective commitment), the independent variable (Authentic leadership) and mediator variable (Psychological empowerment) is illustrated in fig 3.1.

**Independent variable      Mediator variable      Dependent variables**

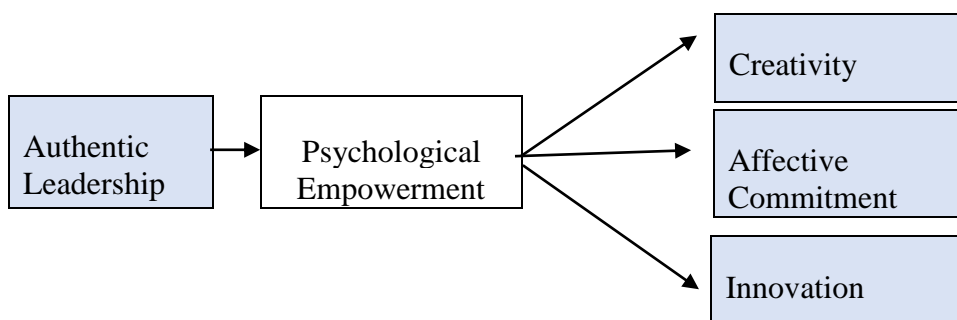


Fig 3.1 Hypothesized Models

### Econometrics Model

$$Y = \alpha + \beta_1 X_1 + e$$

$$Y (\text{creativity}) = \alpha + \beta_1 \text{Al} + \beta_2 \text{Psy-Emp} + e$$

$$Y (\text{Innovation}) = \alpha + \beta_1 \text{Al} + \beta_2 \text{Psy-Emp} + e$$

$$Y (\text{affective Commitment}) = \alpha + \beta_1 \text{Al} + \beta_2 \text{Psy-Emp} + e$$

### Data collection Method

In order to test the proposed hypotheses empirically, quantitative research method was adopted and data was collected through the use of a well-structured questionnaire. With prior approval from the supervisor, the questionnaire was finalized and all the primary data were collected through the use of a well-structured questionnaire. The data was collected from the Telecommunication firms operating in Peshawar, Khyber Pakhtunkhwa. The data was gathered through actual visits to the selected organizations in Peshawar and face to face distribution of questionnaires to one hundred and eighty-six (186) respondents.

### Data Analyses

The data was analyzed through SPSS and result was obtained in percentages. Descriptive Statistics was used and this study followed simple regression and multiple regression analyses. As there is mediator variable in this study, Baron and Kenny (1986) four steps proposed model was followed for conducting mediation analyses. Correlation and reliability test was used in this study.

### Variables and their Measurements

This study includes Five Variables i.e. Authentic Leadership, creativity, innovation, effective commitment and psychological empowerment. The Variables was measured with adopted scales. All items were measured on a five (5) point Likert scale which starts from strongly disagree to strongly agree. The questionnaire containing 43 items was the main instrument for data collection.

Authentic leadership was measured with 16 item scale developed by Bruce J. Avolio, William L. Gardner, and Fred O. Wulumbwa. (Copyright 2007 Authentic Leadership Questionnaire by Bruce J. Avolio, William L. Gardner, and Fred O.

Walumbwa. This mediating variable was measured with 12 items scale developed by Sprietzer (1995). All items of Psychological empowerment was measured on 5 points Likert scale starts from strongly Disagree to strongly agree. Creativity was measured with 6 item scale adopted from Kumar and Holman (1997) creativity questionnaire. Innovation was measured with 3 item scale adopted from Jimenez and Valle (2011) questionnaire. Affective commitment was measured with 6 item scale developed by Meyer and Allen (1993).

#### 4. RESULTS AND DISCUSSION

One hundred and eighty-six respondents were taken as a sample size from telecommunication firms operating in Peshawar. The Demographic data is mentioned in the following table i.e. 4.1.

##### Demographics

Gender					
Male	N	%	Female	N	%
	156	83.9		30	16.1
Age	N	%	Qualification	N	%
20-30	51	27.4	BA/BSC	56	30.1
31-40	88	47.4	MA/MS	119	64
41-50	38	20.4	MS/PhD	11	5.9
51& Above	9	4.8			
Experience	N	%	Income	N	%
1-10	107	57.5	25 and below	40	21.6
11-20	60	32.3	26-35	46	24.7
21-30	14	7.5	36-50	54	29
31 and above	5	2.7	51 & above	46	24.7

Table 4.1 Demographic Statistics

In above table, 4.1 respondents are divided on the basis of gender, age, qualification, experience and income of each respondent taken as a sample size. Where 83.9% respondents with a total number of 156 were male and 16.1% respondents with a total number of 30 employees were female in the sample size of 186 employees.

The employees between the ages of 31 and 40 maximally participated in the

study 47.3 % followed by 21 to 30 which were 27.4 %. The employees between 41 and 50 were 20.4 % and above 50 were least participants which were 4.8 % of the total sample size.

The second demographic shows that majority of the respondents 64 %, in number 119 have done MA/MS followed by secondly 30.1 %, in number 56 was graduate and least 5.9 % which was 11 in numbers have done MS and PhDs.

The third demographic variable was Designation of employees participated in the study. The table shows that lower level managers participate highly 38.2 % and in numbers 71 followed by middle-level managers 35.5 % and 66 numbers. Top level managers lastly participated 26.3 % and which was 49 in numbers.

The fourth demographic variable was experienced, and most of the employees having experience between 1 and 10 years participated largely. They participated 57.5 % and 107 in numbers followed by employees whose experience was between 11 and 20, and they participated 32.3 % and 60 in numbers. While 7.5 % employees participated having experience between 21 and 30 years and their number was 14 out of 186. The employees whose experience was above 30 years participated 2.7 % and they were 5 in numbers.

Lastly demographic was income of the respondents, and employees earning between 36 thousand and 50 thousand participated highly 29 % and 54 in numbers followed by 24.7 % employees earning above 50 thousand participated. Employees with income between 26 and 35 thousand participated 24.7 % followed by employees with income lower than 26 thousand 21.5 % participated in the study.

### Reliability Analyses

Cranach's Alpha is the coefficient of internal consistency. The theoretical value of alpha lies between 0 and 1, but higher values of alpha are more desirable.

Variable	No of items	Cronbach's Alpha Reliability
----------	-------------	------------------------------

Authentic Leadership	16	0.733	Reliable
Psychological Empowerment	12	0.816	Reliable
Employees Creativity	6	0.756	Reliable
Affective Commitment	6	0.770	Reliable
Innovation	3	0.714	Reliable

Table 4.3 Reliability measures of variables

The above table shows the results of reliability analyses. Cronbach's alpha values in above table show that the data for each variable collected is reliable. The alpha value of each variable is greater than 60 %, suggested that data collected is reliable (Cronbach, 1951). The value of Cronbach alpha lies between 0 and 1, however, if the value of Cronbach alpha is closed to one it clearly indicate that the data is reliable and there is the greater internal consistency of the items on the scale. The alpha reliability value for the sixteen item of authentic leadership is 0.733 which is reliable. The alpha value for the 12 items of psychological empowerment is 0.816 which is considered is reliable as these items are high inter-consistent. The alpha value for 6 items of creativity is 0.756 suggesting that items having a high level of internal consistency. Similarly, the alpha value for 6 items of affective commitment is 0.770 which is reliable. The alpha coefficient of 3 items of innovations is 0.714 which is reliable. So it is concluded from the results generated by reliability test that data collected is reliable and detecting no issues regarding data reliability.

### Correlation Analyses

Correlation tells us about how much two variables are related to each other. Pearson Correlation shows the degree of linear relationship between two variables. The range of Pearson Correlation is +1 to -1.

The 4.4 table contains the mean value of demographic variables, independent variable, mediator and dependent variables in column number first, while the second column addresses their standard deviations. The rest of the table addresses correlation analyses. Correlation analyses are conducted to assess and find out the degree of

relationship between demographics, independent, mediator and dependent variables. Correlation may be positive, null correlation or negative shows the respective degree of relationship. Above model shows Pearson r value of correlation and p-value of correlation, where r-value the direction of correlation and p-value represents its significance. The symbol (\*\*) represents high significance and (\*) low significance level.

The mean value of gender is above 1 with a standard deviation of 0.362 showing that we have on average males as the majority of our sample size. The mean value of age is 2.03 with a standard deviation of 0.813 which means the majority of respondents have age between 31 to 40 years. The mean value of qualification is 2.76 which are closed to three with SD of 0.542 which means that majority of respondents are MA/MSC qualified. Similarly, the mean value of Designation is 1.90 with a standard deviation of 0.799 which means that middle-level managers participate highly. The mean value of experience is 1.57 with a standard deviation of 0.744 which means that respondents having experience between 1-10 years maximally participated.

The table shows strong correlation between age and authentic leadership ( $r = .155^*$ ), shows positive but insignificant relationship with Psychological empowerment ( $r = .113$ ), creativity ( $r = .025$ ), affective commitment ( $r = .023$ ) and negative correlation with innovation ( $r = -.083$ ). The demographic, qualification has a strong and significance correlation with authentic leadership ( $r = .151^*$ ), creativity ( $r = .209^{**}$ ). The demographic, Designation has a strong positive and significance correlation with authentic leadership ( $r = .287^{**}$ ), psychological empowerment ( $r = .245^{**}$ ), creativity ( $r = .287^{**}$ ), but the insignificant correlation with affective commitment and innovation.

The main variable authentic leadership has a strong positive and significant correlation with Psychological empowerment ( $r = .199^{**}$ ), creativity ( $r = .313^{**}$ ), but the insignificant correlation with affective commitment and innovation. The table shows strong positive and significance correlation between psychological empowerment and creativity ( $r = .394^{**}$ ) affective commitment ( $r = .385^{**}$ ), innovation ( $r = .219^{**}$ ).

**Table 4.4 for Mean, Standard Deviation, and Correlation**

Variables	Descriptive		Correlation Analyses										
	Mean	SD	1	2	3	4	5	6	7	8	9	10	11

<b>Gender</b>	1.15	0.362										
<b>Age</b>	2.03	0.813	-									
			.272**									
<b>Qualification</b>	2.76	0.542	.318**	-.166*								
<b>Designation</b>	1.90	0.799	-.001	.313**	.550**							
<b>Experience</b>	1.57	0.744	-	.790**	-	.192**						
			.272**		.231**							
<b>Income</b>	2.59	1.089	-.006	.376**	.532**	.890**	.254**					
<b>MeanAI</b>	3.78	0.417	-.035	.155*	.151*	.287**	.082	.281**				
<b>MeanPSE</b>	3.40	0.391	-.011	.113	.062	.245**	.182*	.168*	.199**			
<b>MeanCRT</b>	3.95	0.518	.014	.025	.209**	.287**	.007	.253**	.313**	.394**		
<b>MeanAFC</b>	3.09	0.515	-.073	.023	-.056	-.002	.145*	-.023	-.006	.385**	.097	
<b>MeanINV</b>	3.73	.653	.011	-.083	.004	.016	-.123	-.056	.087	.219**	.293**	.182*

\*\* ,P<0.01

## Regression Analyses

Direct Relationship between independent and dependent variables

Ind. Variable			Dependent variables		
Authentic leadership			Employee Creativity		
F	R <sup>2</sup>		B	T	P
21.49	0.09		38	4.63	.000
Authentic Leadership			Affective Commitment		
F	R <sup>2</sup>		B	T	P
.008	.000		.008	.091 vx	.928
Authentic Leadership			Innovation		
F	R <sup>2</sup>		B	T	P
1.5	.008		1.36	.22	.222

Table 4.5

### Authentic Leadership and Employees creativity

The above model shows results of the simple regression model. In this model authentic leadership is independent variable and creativity, affective commitment and innovation are dependent variables. This linear regression model is interpreted below.

In the upper mentioned model F value is 21.49 with 0.000 level of significance, which is less than 0.05, clearly, indicate overall model fitness. The value of R2 is 0.09 and it means that 0.09 percent of variations in the dependent variable employee creativity are explained by the independent variable authentic leadership in the model. While the

rest of variations are due to other factors which are not included in the study. The value of  $R^2$  is positive but very low so it means that we have only considered one independent variable and many other factors causes' variations in the dependent variable employee creativity. The value of regression coefficient of authentic leadership is 0.38; it means that when authentic leadership increases employee creativity will increase. If we increase the value of authentic leadership by 1 percent it will bring 0.38 percent increase in employee creativity. The p-value of authentic leadership is 0.000, which is less than 0.05,  $P < 0.05$ , therefore we will reject the null hypotheses and conclude that there is a significant relationship between authentic leadership and employee creativity.

This relationship matches with past results and proves Avolio, Gardner, Wulumbwa, Luthans 2004 and yarmmarino et al 2008 findings that authentic leadership promotes psychological capital of employees which in turns increases employees creativity.

### **Authentic leadership and affective commitment**

The above model shows that F value is very low 0.008 with a P value of 0.928, which is not less than 0.05, indicates that overall model is not significantly fit. The  $R^2$  value is 0.000 which doesn't explain any changes in the response variable. The P value in above table is 0.928 which is not less than 0.05,  $P > 0.05$ ; therefore we will accept the null hypotheses that there is an insignificant relationship between authentic leadership and affective commitment.

The reason for this insignificant relationship could be the social desirability issue with the respondents of this study. Social desirability is a social science term that describes the tendency of respondents to answer in a particular way that will be viewed favorably by others. The cultural relativity of management could be one of the reasons for the insignificant relationship. It is not necessary to obtain same results in different cultures while conducting a research study (Hofsted, 1994).

Artem Kliuchnikov was a Ph.D. scholar in Regent University; he conducted a research study on authentic leadership effects on follower's organizational commitment mediated by trust. The relationship between authentic leadership and two components of

organizational commitment was insignificant. (Artem kliuchnikov, 2011) Authentic leadership effects on followers organizational commitment mediated by trust, emerging leadership journey, vol.4).

### **Authentic leadership and innovation**

The overall model is insignificant for the relationship between authentic leadership and innovation as the F value is very low 1.50 with a P value of 0.222, which doesn't fall in significance region. Although R<sup>2</sup> explains a very little changes but still the model is not significant. The value of regression coefficient is 0.136 and it means that with one percent increase in authentic leadership there will be 0.13 percent increase in innovation as well.

The P value is 0.222 which is greater than 0.05,  $P > 0.05$ , so we will accept null hypotheses and conclude that there is an insignificant relationship between authentic leadership and innovation in the model. The reason for this insignificant relationship could be the social desirability issue with the respondents of this study. Social desirability is a social science term that describes the tendency of respondents to answer in a particular way that will be viewed favorably by others. The cultural relativity of management could be one of the reasons for the insignificant relationship. It is not necessary to obtain same results in different cultures while conducting a research study ( Hofsted, 1994). This relationship also supports and matches with the results of (Artem kliuchnikov, 201) who conducted a research study and he accepted two null hypotheses as there were insignificant results.

### **Authentic leadership and Psychological empowerment**

Table 4.6 shows the effect of authentic leadership on the mediating variable psychological empowerment. The F value is 8.173 with a P value of 0.005 which is significant and shows overall model fitness. The value of R<sup>2</sup> is 0.04 which means that 0.04 percent of variations in psychological empowerment are explained by authentic leadership. The value of regression coefficient is .187; it means that if the value of authentic leadership increases by one percent it will bring .187 percent changes in psychological empowerment. The P value shows significance level and here the P value

is 0.005 which shows a significant relationship between authentic leadership and psychological empowerment, thus hypotheses 4th supported and we reject null hypotheses.

Ind. Variable		Mediator variables		
Authentic leadership		Employee Creativity		
F	R <sup>2</sup>	B	T	P
8.173	0.04	.187	2.85	.005

Table 4.6

### Relationship between Mediator and Dependent variables

Mediator Variable		Dependent variables		
Psychological Empowerment		Employee Creativity		
F	R <sup>2</sup>	B	T	P
36.33	0.15	0.52	6.02	.000
Psychological Empowerment		Affective Commitment		
F	R <sup>2</sup>	B	T	P
34.54	.14	0.50	5.87	.000
Psychological Empowerment		Innovation		
F	R <sup>2</sup>	B	T	P
0.01	.04	0.36	3.16	.002

Table 4.7

### Psychological empowerment and employee Creativity

The above model shows linear regression relationship between psychological empowerment and employee creativity. The F value is 36.33 with a P value of 0.000 which shows that overall model is significant. The value of R<sup>2</sup> is 0.15 and its means that 0.15 percent of variations are explained in creativity by an independent variable which is psychological empowerment. The value of R<sup>2</sup> is positive but low, this indicates that other 85 percent of variations are due to other factors which are not considered in this study. The B value is 0.52 which is significant and shows that when psychological empowerment increases creativity will increase automatically. If we increase the value of psychological empowerment by 1 it will bring 0.52 changes in creativity. The P value is less than 0.05, P<0.05, so on the basis of this significance level we will reject null hypotheses and conclude that there is a significant relationship between psychological empowerment and employee creativity.

**Psychological empowerment and Affective commitment**

The above table shows the linear regression relationship between psychological empowerment and affective commitment. In above mention table, the value of F is 34.54 with 0.000 percent of significance level which means the overall models statistically significant. The value of  $R^2$  is 0.14 which means that psychological empowerment has explained 0.14 percent variations in affective commitment in this model, while the rest of 86 percent of variations are due to other factors that are not included in the study. The p-value is less than 0.05,  $P < 0.05$  suggesting that there is a significant relationship between psychological empowerment and affective commitment. So we will reject null hypotheses and conclude that there is a significant relationship between psychological empowerment and affective commitment. The value of regression coefficient is 0.50 which is significant and show a positive relationship between these two variables and a change of 1 percent increase in independent variable will bring a change of 0.50 percent increase in the dependent variable.

**Psychological empowerment and innovation**

The above table shows simple regression relationship between psychological empowerment and innovation. The F value is 10.01 with a p-value of 0.002 which is significant and show overall model fitness. The value of  $R^2$  is 0.04 which indicate little variation are explained in X by Y, and this value means that only 0.04 percent of variations in innovation are explained by psychological empowerment. The value of regression coefficient is 0.36 which reveals positive relationship and when we increase the value of psychological empowerment by 1 it will bring an increase of 0.36 in innovation. The significant level P value is 0.002 which is less than 0.05,  $P < 0.05$  suggesting a significant relationship between psychological empowerment and innovation. We will reject null hypotheses and conclude that there is a significant relationship between psychological empowerment and innovation.

**Mediation effect of Psychological empowerment on the relationship of authentic leadership and creativity**

Table 4.8 represents the result of the analyses between the independent variable (authentic leadership) and the dependent variable (Creativity) with the inclusion of

mediator variable (psychological empowerment). The results show that Beta value for authentic leadership reduced in mediation analyses from (.313 to .244) which demonstrate that there is partial mediation between all variables and funds statistically significant at every step. Hence the findings support hypotheses 6<sup>th</sup> in this study. The possible explanation for this partial mediation may be that there are another possible mediator and moderator variable that is influencing on this relationship.

### Coefficients'

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.485	.319		7.783	.000
	Authentic leadership	.388	.084	<b>.313</b>	4.637	.000
2	(Constant)	1.255	.377		3.326	.001
	Empowerment	.457	.085	.345	5.349	.000
	Authentic leadership	.303	.080	<b>.244</b>	3.785	.000

D.V: Employees Creativity, Table-4.8

The above table shows the results of mediation analyses between Independent variable (authentic leadership) and Dependent variable (Affective commitment) with the inclusion of mediator variable (Psychological empowerment). The results suggest that there is no mediation exists, indicates that psychological empowerment does not mediate the relationship between authentic leadership and affective commitment. So we will accept null hypotheses that psychological empowerment does not mediate the relationship between authentic leadership and affective commitment.

### Mediation effect of Psychological empowerment on the relationship of authentic leadership and affective commitment

Table 4.9 shows the results of mediation analyses between Independent variable (authentic leadership) and Dependent variable (Affective commitment) with the inclusion of mediator variable (Psychological empowerment). The results suggest that there is no mediation exists, indicates that psychological empowerment does not mediate the relationship between authentic leadership and affective commitment. So we will accept null hypotheses that psychological empowerment does not mediate the relationship

between authentic leadership and affective commitment.

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.129	.334		9.363	.000
	Authentic leadership	.008	.088	<b>.006</b>	.091	.928
2	(Constant)	1.702	.388		4.383	.000
	Empowerment	.530	.088	.403	6.028	.000
	Authentic leadership	.107	.082	<b>.087</b>	1.297	.196

D.V: Affective commitment, Table 4.9

### Mediation effect of Psychological empowerment on the relationship of authentic leadership and innovation

The table presents the mediation effect of psychological empowerment on the relationship between authentic leadership and innovation. The result shows that there is full mediation effect on the relationship between authentic leadership and innovation due to the mediator variable (psychological empowerment). The Beta value of authentic leadership is reduced from (.087 to .045) which means full mediation exists. Thus hypotheses 8th were supported as there is full mediation by psychological empowerment.

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.223	.422		7.632	.000
	Authentic leadership	.136	.111	<b>.087</b>	1.225	.222
2	(Constant)	2.277	.522		4.358	.000
	Empowerment	.351	.118	.210	2.970	.003
	Authentic leadership	.070	.111	<b>.045</b>	.632	.528

D.V: Innovation, Table 4.1

## 5. DISCUSSION

The main purpose of this study was to examine the effect of authentic leadership and its relationship with employee's creativity, affective commitment, innovation and the mediation effect of psychological empowerment on the relationship among these

variables. The data was analyzed in terms of mean, standard deviation, demographic, frequencies, correlation, linear regression and reliability analyses. The specific objective was to study the mediating effect of psychological empowerment on the relationship between authentic leadership with creativity, affective commitment, and innovation in the telecom Sector operating in Peshawar. This study shows a significant relationship between authentic leadership and creativity and the insignificant relationship between authentic leadership with affective commitment and innovation, thus hypotheses 1 supported and hypotheses 2 and 3 was not supported. This study aims that authentic leadership has a strong and significant correlation with employee's creativity but the insignificant correlation with affective commitment and innovation. Psychological empowerment has also a strong positive and significant correlation with creativity, affective commitment, and innovation. The value of Cronbach Alpha was found to be reliable as approaching to .70. The present study also reveals that there is a strong and significant relationship between authentic leadership and psychological empowerment.

The study found that psychological empowerment significantly mediates the relationship between authentic leadership, creativity, and innovation. Psychological empowerment partially mediates the relationship between authentic leadership with creativity while fully mediates the relationship between authentic leadership and innovation. Psychological empowerment does not mediate the relationship between authentic leadership and affective commitment. Thus hypotheses 6, and hypotheses 8 was supported that psychological empowerment significantly mediates the relationship between authentic leadership and creativity, innovation. This research supports previous studies that there is a positive relationship between authentic leadership and creativity. Authentic leaders promote psychological capital of employees which ultimately enhances employee's creativity (Avolio, Gardner, Walumbwa, 2004, Yammarino et al, 2008). Employees who have a higher psychological capital are more creative (Avolio, et al, 2004). The study provides support to previous literature that authentic leadership through balance processing and self-awareness dimensions has a positive effect on creativity (Rego et al, 2012).

The contribution of this study to the literature is the findings of the relationship

of authentic leadership with creativity, affective commitment, and innovation along with the mediation effect by psychological empowerment in a single model.

## 6. CONCLUSION

Authentic leadership is strongly related to employee's creativity and there is a strong significant relationship between authentic leadership and employee's creativity. Authentic leadership has a positive but insignificant relationship with affective commitment and innovation. This could be cross culture issue or may be social desirability issue with employees in this study. Authentic leadership has a significant relationship with the psychological empowerment in this study. Partial and full mediation is found and mediator variable (psychological empowerment) significantly mediates the relationship between authentic leadership with creativity and innovation but does not mediate the relationship between leadership and affective commitment. This study found a strong positive correlation between authentic leadership and creativity and also a strong correlation between psychological empowerment with creativity, affective commitment, and innovation. So based on the results of this study all of the hypotheses are supported but hypotheses 2, 3 and 7 were not supported.

## 7. LIMITATIONS OF THE STUDY

This study is not without its limitations. The first and most important limitation is the use of convenient sampling technique in this study. The quality of this study can be improved by using random sampling technique. This study followed Common Variance method (CVM). According to this method, data was gathered for authentic leadership, psychological empowerment, employee's creativity, affective commitment and innovation from the same source. This could be improved by collecting the data from the leader as well as from the followers, where leaders could rate their subordinates for creativity, affective commitment and innovative traits and employees/ followers could rate their leaders for authentic leadership traits.

Translations of items in questionnaire could be one of the limitations of this research study. Further, a detailed background of research study and explanation regarding variables may help and increase understanding of employees how to respond to a particular question. In terms of methodology, the sample size of this study is restricted

to a certain group with similar demographic characteristics: employees in the telecom sector in Peshawar.

## 8. FUTURE DIRECTIONS

This research study identifies strong gap to conduct future research studies. Convenient sampling technique was followed in this study, so simple random sampling and purposive judgmental sampling technique can be used in future studies.

Future directions also focus on relating authentic leadership with other psychological behavior like job satisfaction, employee's performance, turnover intention, and organization citizenship behavior. This study includes one mediating variable (psychological empowerment), future studies may include other mediator and moderator variables like Psy-capital, leader member exchange, trust and motivation to draw a conclusion based on their findings.

According to (Hofstede, 1991) culture varies from country to country and different cultures exhibit different values, so future researchers should investigate the same model in different cultures, that will strengthen theory development cross-culturally. Employees working only in telecom sectors are included in this study; future studies may test this model in other organizations and industries.

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