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Effect of authentic leadership on employee creativity in project-based organizations with the mediating roles of work engagement and psychological empowerment

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Abstract: The purpose of this research is to explore the relationship that exist between authentic leadership and employee creativity in project-based organizations. The mediating effects of work engagement and psychological empowerment on the relationship of authentic leadership and employee creativity were also focused in this research. Proficient organizations ensure presence of systematic practical approaches that can benefit employees in increasing their engagement levels and making them feel more empowered. The data were collected through convenience sampling from 246 respondents of different Project-based NGO's of Islamabad and Rawalpindi. The findings suggest that employee creativity is significantly associated with authentic leadership, work engagement, and psychological empowerment. In addition, it was also revealed that extra engaged employees at work were more creative and sense of empowerment also mediates the relationship between authentic leadership and employee creativity. This research contributes to the current literature that authentic leadership relates to employee creativity, through mediating effects of work engagement and psychological empowerment.

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PUBLIC INTEREST STATEMENT

Every individual capability and creativity is different and unique. Some may be more creative and some may be less. But a good leader or supervisor can influence the sub-ordinate or employee to work creatively. This particular article explains that how authenticity of a leader can play an important role in increasing employee creativity specifically in project-based organizations where meeting deadlines is a huge challenge. A sample of 246 employees from project-based organization was gathered, which was used to demonstrate the relationship that does exist between authentic leadership and employee creativity. The results showed positive and significant total effect of authentic leadership on employee creativity. Additionally, the impact of work engagement and psychological empowerment on this relationship was explored. Work engagement was mediating between authentic leadership and employee creativity. While psychological empowerment acted as a partial mediator. The results may help project-based organizations to take initiatives to increase authenticity in leaders and creativity in employees.

1. Introduction

For gaining competitive advantage in today's dynamic work environment creativity is a treasured source. Organizations have to advance creativity with an aim to endure and flourish along with ever-advancing technology, extreme internal and global competitive pressures, vague and very much stormy economic environment. Organizations also need to discover creative approaches to accomplish their own requirements. Organizations need leaders who can provoke positive behavior in their employees by motivating them. These behaviors are not necessarily part of their job requirement officially but they play a vital role in giving productive outcomes in organizations (Katz, 1964).

In today's world organizations are much more focused on helping employees/workers to enhance job performance rather than controlling and dominating them. According to Brungardt (1997) a constant research concern in the field of human resource expansion, management and managerial performance is Leadership. Leadership is one of the major relative factors that impacts creativity and innovation. Leaders play a decisive part in empowering and sustaining the development and nurturing of creativity and innovation. The development of a warm relationship between leader and employee is very much important to promote a healthy organizational environment. Among different styles of leadership, authentic leadership has gained much attention owing to paradigm change due to some incidents in different organizations. Leaders help followers find association and meaning at their workplace, thereby making an essential difference to organizations and in this context Authentic leadership has drawn significant attention (Cartwright & Holmes, 2006; George, 2003). For a better understanding of the association between advanced leadership styles, for instance authentic leadership and creativity, there is a great need of further investigation. Various researchers and practitioners have explored the effects of authentic leadership on employee behaviors and conducts to improve organizational performance.

By making creativity a pre-requisite condition for any job, employee creativity can be reinforced by leaders. Creativity can also be improved by showing positive response and rewards to employees when they accomplish creative outcomes (De Stobbeleir & Ashford, 2011). Motivated employees exhibit elevated levels of creativity (Amabile, 1988; Amabile, Conti, Coon, Lazenby, & Herron, 1996; Zhou & Ren, 2011).

In contrast some studies in the literature validate that employee creativity may decline under leadership and supervision. Leader's close observing attitude and narrow administration turn down the employee's creativity (Zhou & Ren, 2011). The contradictory outcomes motivated the research to figure out the effects of leadership (authentic leadership) on employee's creativity. In literature, different mediating variables such as hope, positive effect, and psychological capital have been tested between the association of authentic leadership and employee creativity. This research is one of the pioneer studies to explore the mediating effect of work engagement and psychological empowerment on the relationship of authentic leadership and employee creativity.

Semedo, Coelho and Ribeiro (2017) explored the relationship between authentic leadership and creativity, with the mediating role of happiness. Further they recommended that more investigations should be carried out to recognize additional consequences of the presence of authentic leaders in organizations plus suggested other variables that mediate or moderate the relationship with creativity.

Malik, Dhar, and Handa (2016) carried out a research on authentic leadership and its impact on creativity of nursing staff. They suggested that more experimental studies should be carried out in other industrial sectors to generalize these findings. As their work was based on one mediator only,

they gave another recommendation of using other mediators to fully comprehend the association between authentic leadership and employee creativity and the factors that impact this relationship.

A research was conducted on relationship of authentic leadership and creativity by Rego, Sousa, Marques, and Cunha (2012) they suggested researchers to explore the variables they used to get a richer understanding of how these variables communicate empirically and interrelate with other variables. They endorsed using new mediating variables, such as psychological empowerment and work engagement.

Al Sahi AL Zaabi, Ahmad, and Hossan (2016) studied the association among authentic leadership and work engagement in Petroleum Company of UAE. They suggested the verification of relationship between authentic leadership and work engagement in another sector in UAE or elsewhere in another country.

2. Literature review

2.1. Authentic leadership and employee creativity

One of the developing pillars of the field of the leadership is authentic leadership since the last decade. Authentic leaders are required in organizations for helping employees find significance and association at work so that they can deal with the novel, chaotic, and vigorously altering work surroundings via making a vital difference in organizations. Authenticity originates from Greek philosophy and has an imperative place in theoretical writings and refers to "thine own self be true" (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Harter, 2002).

According to Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008) followers think about leaders authenticity according to how much they symbolize these four unique components that characterize authentic leadership; an internalized moral perspective which refers to a self-regulation system operated by internal moral values and principles which they strongly believe and follow; balanced processing which refers to making a decision impartially after carefully scrutinizing relevant data and information; self-awareness which refers to the understanding of a leader about his or her own strengths and weaknesses and their effect on others; and relational transparency which refers to the level to which a leader is geared up to share opinions and information among followers and encourages followers to do alike.

Creativity involves production of fresh and valuable concepts relating to goods, services, procedures, and processes (Madjar, Oldham, & Pratt, 2002; Zhou, Christina, & Shalley, 2003). Creativity look for unique ways of doing work and novel ideas associated with developing new opportunities (Amabile, 1983). In the place of work, the process in which new ideas are generated and original, appreciated, and valuable solutions are given for a particular problem is known as creativity (Amabile, 1988; Oldham & Cummings, 1996). In almost any employment at various stages; creativity is valued across many professions and industries. Creativity delivers rare and distinctive assistance to organizations. Creativity results in prosperous companies, satisfied employees, financial affluence, and social growth. According to definition, creativity has two fundamental basics; novelty and usefulness which explains creativity as creation of original and constructive ideas regarding goods, services, processes, management practices, business models, and competitive strategies (Zhou & Ren, 2011). The objective of creative performance is not merely production of enormous number of concepts, but to generate new products and services, to adapt market-place opportunities into business for organizations and to make organizations more operational through producing such ideas that can solve problems that are faced.

Leadership is a feature that empowers employees to promote creativity and innovation with the proper feedback (Muceldili, Turan, & Erbil, 2013). Concept of psychological security (Edmondson, 1999) and inherent motivation (Ryan & Deci, 2000) assist to endorse our hypothesis which affirm

authentic leadership is related to employee's creativeness which refers that authentic leaders encourage employee's insights of mental security and their built-in motivation, which consequently make them extra original. Michie and Gooty (2005) predicted that authentic leaders also raise authenticity amid their dependents because they sense less prone to the changes that employees' honest and original ideas may infer and are more prone to welcome their creative ideas. The quest of new opportunities results in disagreement of employees with leader (Cheung & Wong, 2011). Therefore, to accomplish a non-routine role of creativity, employees require reassuring behavior of leader (Amabile & Gryskiewicz, 1987). Creativity is nurtured by Employees' intrinsic motivation as naturally stimulated employees are (1) additionally inquisitive and slanted toward learning, (2) they are flexible in their intellectual thinking, (3) they are risks takers, and (4) when they encounter challenges, hurdles, and opportunities they seem to be more determined (Amabile, 1997; Farmer & Graen, 1999; Oldham & Cummings, 1996; Zhou, 2003; Zhou & Ren, 2012). Authentic leaders enhance the positive sentiments of employees by constructing supportive, positive, reasonable, and transparent connections with them (Peterson, Walumbwa, Avolio, & Hannah, 2012) which as a result escalates their creativity. A positive association between ethical and moral perspective and employee creativity has also been evident from previous studies (Bierly, Kolodinsky, & Charette, 2009; Valentine, Godkin, Fleischman, & Kidwell, 2011). Considering the literature (Ilies, Morgeson, & Nahrgang, 2005) proposes that authentic leaders by supporting the autonomy of their employees make them fundamentally more motivated. Therefore, our first hypothesis pursues that:

H1: Authentic Leadership has significant positive effect on employee Creativity.

2.2. Authentic leadership, work engagement, and psychological empowerment

Kahn (1990) explained employee engagement as the demonstration of people's entire personalities which include physical, intellectual, and emotional roles in their work part. He conceptualized that how employee perceives the work contexts surrounding him or her influences the level of the person's favorable engagement with it. The idea of work engagement can be defined as an optimistic, satisfying, job-related shape of mind that is distinguished by strength, devotion, and absorption (Schaufeli, Salanova, González-romá, & Bakker, 2002). To be exact, work engagement is considered to be representing how employees recognize their work (Bakker, Schaufeli, Leiter, & Taris, 2008) as a deliberate and thoughtful pursuit of work (dedication or intellectual engagement); as captivating and exciting (emotional engagement); and as stimulating and energetic that they are enthusiastic to devote themselves with passion (vigor or behavioral engagement).Work engagement has many positive outcomes that's why it is a crucial aspect for organizations. It has a substantial effect on employees along with organizations (Saks, 2006). Work engagement leads to better job performance and more positive work outcomes by attaching employees physically and emotionally to their organization (Kumar & Pansari, 2015; Menguc, Auh, Fisher, & Haddad, 2013; Schaufeli & Bakker, 2004).

Researchers and practitioners have increasingly paying attention to empowerment because it offers the potential to positively influence outcomes that not only advantages individuals but organizations as well (Liden, Wayne, & Sparrowe, 2000). The concept of empowerment has been well thought-out as a powerful weapon to elevate organizational efficiency. Giving people the authority to make decisions has been perceived as empowerment (Randolph, 1995). From previous theories of empowerment (e.g., Conger & Kanungo, 1988; Thomas & Velthouse, 1990) the idea of empowerment is digged out by Spreitzer (1995) and he explained psychological empowerment as a kind of intrinsic motivation which is established from four kinds of perceptions: meaning, competence, self-determination, and impact. It is argued that these four dimensions are essential to constitute the whole construct of psychological empowerment; and the overall degree of observed empowerment declines as a result of absence of a single out of these four dimensions. The conceptualizations of the dimensions are:

(1) Meaning: Perceived worth of a work or task.

(2) Competence: The magnitude to which an individual have faith in that he or she has the essential abilities to accomplish the organizational activities.

(3) Self-determination: A choice of introducing and regulating activities performed by self.

(4) Impact: Perceiving self has a kind of influence to one's immediate work atmosphere.

Therefore, psychologically empowered employee feels internally motivated because he recognizes his work worth something, he know that he is capable of doing that work, he has a kind of control to one's immediate work place and he has choice of introducing and regulating activities performed by self. All these magnitudes give the employee a boost and help him to feel empowered.

A close association among authentic leadership and engagement is effortlessly predictable. It has been reasoned that followers who work under authentic leaders are more probable to be engaged, as the leaders have a tendency to motivate their followers' value and conduct so that their followers are capable to be obvious, reasonable, ethical, and decent in their work role (Giallonardo, Wong, & Iwasiw, 2010). By creating a shared special sense of "us" leaders are capable to encourage work engagement and avoid stress among group members. Findings recommend that authentic leadership means being capable of facilitating the development of a distinctive sense of "us" shared among the leader and the group members (Steffens, Haslam, Kerschreiter, Schuh, & Dick,2014).

Therefore, it can be hypothesized that:

H2: Authentic Leadership has significant positive effect on Work Engagement.

A study revealed that a close connection is there amid authentic leadership and psychological empowerment (Avolio, Gardner, Walumbwa, Luthans & May, 2004). Employees are treated with admiration rather than treating them as a resource to complete task by authentic leaders. Consequently, a stronger sense of connotation at work is experienced by employees, which is one of the leading aspects in psychological empowerment (Bandura, 1986; May, Gilson, & Harter, 2004). Besides this, one more vital factor in the employee's psychological empowerment is feeling autonomous in decision-making; employees of authentic leaders identify themselves as self-sufficient in making their own decisions (Conger & Kanungo, 2000; Meyerson & Kline, 2008). Self-awareness and self-regulated behaviors of both leaders and followers are positively affected by authentic leadership. Authentic leaders stimulate motivation for individual growth and self-development of their employees (Ilies et al., 2005). The employees feel more comfortable under such supervision where they can get motivation and inspiration. A leader who is genuinely authentic will surely try to make his employee feel empowered.

We, therefore, hypothesize that:

H3: Authentic Leadership has significant positive effect on Psychological Empowerment.

2.3. Work engagement, psychological empowerment, and employee creativity

Bedarkar and Pandita (2014) studied the drivers of employee engagement impacting employee performance and they establish that the most important resource of an organization is its employees, they must be given good space and time to create an ideal combination of work and fun at their place of work, this is the only way to set sense of engagement in the employees. Therefore, organizations should take steps to fulfill employee's expectations, thus, creating an impact on the performance of the employee which will affect the performance of the organization ultimately. A study was done on work engagement and performance in which 105 school principals and 232 teachers were involved (Bakker, Gierveld, & Van Rijswijk, 2006). A noteworthy and positive relationship between work engagement scores and performance and leadership was revealed in their research. Additionally, engagement was strongly associated to creativity; the participants with higher levels of

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work engagement were capable to come up with diverse ways to deal with difficulties and problems in their work environment. Fredrickson (2001) in his broaden-and-build theory of positive emotions explained that through widening the collection of opinions and actions that approach any mind, certain constructive emotions which may include happiness, curiosity, and contentment, all contribute to the competence to widen people's temporary thought – action repertoires and construct their personal resources that may range from materialistic to intellectual resources and also include social and psychological resources. For example, joy broadens resources by developing the urge to play and be more original. Work engagement is an important feature which emphasize on the insight of an employee toward his work. The additional meaning he gives to his work, extra engaged he feels at his job. As a result, it will increase his creativity and he will be able to give more dynamic and original results in his workplace.

Work engagement results in employee productivity as an outcome with many other productive outcomes in this experience (Robertson-Smith & Markwick, 2009).

Therefore, it can be hypothesized that:

H4: Work Engagement has significant positive effect on employee Creativity.

Employees utilize extra determination to view a problem from various perspectives, when they find out that their work needs are substantial and individually significant (Shalley & Gilson, 2004). On top of it, when employees believe that they have the ability and when they are given the requisite resources to carry out employment productively, they possess a certain range of autonomy more than job setup. For that reason, they can easily figure out great outcomes as a result of their behavior and performance. They are more likely to concentrate on idea production and solution-oriented results in an extra attentive and persistent way (Deci & Ryan, 1991; Spreitzer, 1995; Zhang & Bartol, 2010). As a result, employees who feel more psychologically empowered would be inclined to disclose extra creativity in their work. Furthermore, the relation between psychological empowerment and creativity is backed up by preceding research (Seibert, Wang, & Courtright, 2011; Zhang & Bartol, 2010). Empowered individuals observe more efficiency in carrying out tasks as they are more innovative and creative, (Spreitzer, 1995), and exhibit more extra-role performance (Morrison & Phelps, 1999). We therefore, hypothesize that:

H5: Psychological Empowerment has significant positive effect on employee creativity.

2.4. Mediating role of work engagement and psychological empowerment
The mediating effect of work engagement on the relationship between authentic leadership and employee creativity has never been studied in literature. But work engagement has been used as mediator in many studies between various variables. Bakker and Bal (2010) establish that work engagement fully mediated the association among autonomy and job-performance. In addition, Salanova and Schaufeli (2008) found that relationship between job resources and optimistic behavior at work is fully mediated by work engagement. Vinarski-Peretz and Carmeli's (2011) study confirmed that encouraging mental situation which includes work engagement plays a vital role in enhancing innovative performance. Binnewies, Ohly, and Sonnentag(2007) reported that individual inventiveness is absolutely related to idea creativity.

Therefore, seventh hypothesis that is to be tested is as follows:

H6: Work Engagement mediates the relationship between the Authentic Leadership and employee creativity.

In addition to the studies that showed a positive relationship between AL and PE (Zhu, May, & Avolio, 2004), it is expected that PE will increase when perception of AL among employees increases. When a leader gives respect, trust, and identification to his employee, it guide employees to experience

better mental security which as a result help them to feel free to take risks, present conflicting thoughts, and put forward unconventional ideas without any hesitation (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Edmondson, 1999; Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010). Therefore, pushing employees to be extra creative and original in their routine tasks helps them to solve problems and avail opportunities.

It is important to note that although separate independent studies have been done to show that there are significant relationships between the variables mentioned, there has been no research that tests the goodness of fit of all these variables in a single study.

Therefore, sixth hypothesis that is to be tested is as follows:

H7: Psychological empowerment mediates the relationship between authentic leadership and employee creativity.

2.5. Proposed theoretical/conceptual framework
The following model was tested in order to predict the impact of Authentic Leadership on Employee's Creativity in Pakistani project-based organizations.
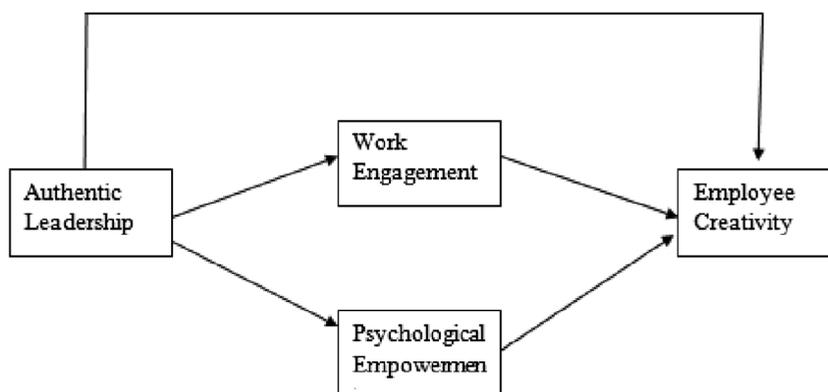
2.6. Proposed research methodology
The data were collected from 300 employees working in project-based NGOs' of Islamabad and Rawalpindi. Out of which data of 246 respondent's data were used for further analysis. P-P graphs and the values of skewness and kurtosis show that data are normally distributed.

2.7. Sources of instrumentation
This research was conducted using a five-point Likert scale, where 1 stand for Strongly Disagree, 2 symbolize Disagree, 3 correspond to Neutral, 4 signify Agree, and 5 embody Strongly Agree option for every variable item, except for demographics where nominal scale was used. For Authentic leadership 14-items scale was used which was developed by Schaufeli and Bakker (2003). Some of the items included in this instrument were "My leader clearly states what he/she means" and "My leader shows consistency between his/her beliefs and actions". Cronbach Alpha value was 0.87.

For Work Engagement 17-items scale was used which was developed by Schaufeli and Bakker (2003). Some of the items incorporated in this instrument were "At my work, I feel bursting with energy". And "time flies when I am working". Cronbach Alpha value was 0.89.

Twelve-items Psychological empowerment scale by Spreitzer (1995) was used to measure psychological empowerment. Some of the items incorporated in this instrument were "The work I do is very important to me" and " I have mastered the skills necessary for my job". Cronbach Alpha value was 0.81.

For the measurement of Creativity, Zhou and George's (2001) 13-item scale were used. Sample items include "come up with creative solutions to problems" and "a good source of creative ideas". Cronbach Alpha value was 0.85.

The cronbach value of all instruments for this present study was greater than 0.70 which according to Nunnally and Bernstein (1994) is acceptable confirming the reliability of the instruments. The demographic variables Gender and Education were controlled.

For mediation analysis Hayes and Scharkow (2013) process was used as it gives more precise results compared to baron and Kenny approach.

3. Results

3.1. Correlation
Comprehensive table is appended below demonstrating the associations, Means, Standard deviations, and correlations between all variables including independent variable (IV) i.e. authentic leadership, dependent variable (DV) i.e. employee creativity and mediating variables (M) i.e. work engagement and psychological empowerment.

The mean value of authentic leadership is 3.46 which show that over all employees have positive attitudes toward their leader. For work engagement mean value is 3.60 which depicts that employees are more toward positive response. Psychological empowerment has mean value of 3.71, which demonstrates that employees feel more empowered. And for employee creativity the value of mean is 3.89, which is highest among all the variables. This value gives an idea about how much employee think of themselves as creative person which is more toward positive response.

Correlation demonstrates how each variable is associated with other variables.

The results show that authentic Leadership has significant positive strong correlation with Employee creativity (0.420**). Thus, H1 is supported. The correlation Table 1 show that authentic Leadership has significant positive strong correlation with work engagement (0.679**). Thus, H2 is also backed up. Authentic Leadership is also showing significant positive strong correlation with psychological empowerment (0.434**). As a result, H3 is supported. Work engagement has significant positive strong correlation with employee creativity (0.542**). Consequently, H4 is supported. Psychological empowerment has significant positive strong correlation with employee creativity (0.758**). Therefore, H5 is supported. So, all the direct hypotheses of our model are being supported by the correlation test.

Table 1. Correlation showing how each variable is associated with other variables								
	Mean	**SD**	**Gender**	**Edu**	**AL**	**WE**	**PE**	**EC**
Gender	1.36	0.481	1					
Edu	2.00	0.885	0.134*	1				
AL	3.46	0.775	−0.205**	0.059	1			
WE	3.60	0.733	−0.244**	0.112	0.679**	1		
PE	3.71	0.759	−0.069	−0.039	0.434**	0.695**	1	
EC	3.89	0.687	0.022	−0.059	0.420**	0.542**	0.758**	1

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

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Table 2. Mediated regression of work engagement between AL and EC showing all the paths							
	Coeff	**SE**	**t**	**p**	**R^2**	**Adj R^2**	**F**
AL to WE (a paths)	0.6129	0.0450	13.63	0.0000			
Direct effect of WE on EC (b paths)	0.5016	0.0676	7.41	0.0000			
Total effect of AL on EC (c path)	0.4005	0.0523	7.65	0.0000			
Direct effect of AL on EC (c′ path)	0.0931	0.0629	1.48	0.1400			
					0.3476	0.3368	32.10

Notes: AL = Authentic leadership; WE = Work engagement; EC = Employee creativity.

a path represents the relationship of AL with work engagement which is positive and significant.

b path shows relationship of Work engagement with Employee creativity which is also positive and significant.

c path shows the relation between AL and employee creativity without mediators and it is also positive and significant.

c′ path shows the mediating effect of work engagement between AL and employee creativity. The insignificant value of coefficient shows that mediation exists.

3.2. Regression

Table 2 (mediation I) shows positive significant relation between authentic leadership and work engagement (coeff = 0.6129, $p = 0.0000$), Work engagement is positively and significantly related to employee creativity (coeff = 0.5016, $p = 0.0000$). It also shows positive and significant total effect of authentic leadership on employee creativity (without mediator) (coeff = 0.4005, $p = 0.0000$). Therefore, H1, H2, and H3 are accepted.

In support to confirm the mediating role of work engagement mediation was tested through preacher and Hayes, the insignificant value of coefficient in direct effect of authentic leadership on employee creativity path shows that mediation exists and work engagement is mediating the relationship of authentic leadership and employee creativity. Consequently, H6 is accepted.

R^2 is measure of goodness of fit and it is also known as "co-efficient of determination". This term tells us about how much regression line is robust, empowered, and fit in the model. R^2 captures the fluctuations in dependent variable due to the fluctuations in independent variables. The R-square value in mediation I is 0.3476, which depicts that 34.76% fluctuations in DV (i.e. authentic leadership) are captured due to fluctuation in IV.

Table 3 (mediation II) shows positive significant relation between authentic leadership and psychological empowerment (coeff = 0.4352, $p = 0.0000$), psychological empowerment is positively and significantly related to employee creativity (coeff = 0.6349, $p = 0.0000$). It also shows positive and significant total effect of authentic leadership on employee creativity (without mediator) (coeff = 0.4005, $p = 0.0000$). Therefore, H1, H4, and H5 are accepted.

Table 3. Mediated regression of psychological empowerment between AL and EC showing all the paths							
	Coeff	**SE**	**t**	**p**	**R^2**	**Adj R^2**	**F**
AL to PE (a paths)	0.4352	0.0580	7.50	0.0000			
Direct effect of PE on EC (b paths)	0.6349	0.0412	15.40	0.0000			
Total effect of AL on EC (c path)	0.4005	0.0523	7.65	0.0000			
Direct effect of AL on EC (c′ path)	0.1242	0.0413	3.01	0.0029			
					0.5962	0.5895	88.95

Notes: AL = Authentic leadership; PE = Psychological empowerment; EC = Employee creativity.

a path represents the relationship of AL with psychological empowerment which is positive and significant.

b path shows relationship of psychological empowerment with Employee creativity which is also positive and significant.

c path shows the relation between AL and employee creativity without mediators and it is also positive and significant.

c′ path shows the mediating effect of psychological empowerment between AL and employee creativity. The significant value of coefficient shows that mediation does not exist.

Psychological empowerment is hypothesized to mediate the relationship between authentic leadership and employee creativity in our model. To confirm the mediating role of psychological empowerment mediation was tested through preacher and Hayes, the significant value of coefficient in direct effect of authentic leadership on employee creativity path shows that partial mediation exists and psychological empowerment is partially mediating the relationship between authentic leadership and psychological empowerment. Consequently, H7 is partially accepted.

R-square captures the fluctuations in dependent variable due to the fluctuations in independent variables. The R-square value in mediation II is 0.5962, which depicts that 59.62% fluctuations in DV (i.e. authentic leadership) are captured due to fluctuation in IV.

4. Discussion

The findings of this research suggest noteworthy hypothetical contributions to the literature and organizational implications. It is the first study which empirically tested and validated the mediating effect of work engagement and psychological empowerment on the relationship of authentic leadership and employee creativity. Recent studies involving mediating variables between authentic leadership and employee creativity only included hope, positive effect, and psychological capital. The significant coefficient values between the variables allow us to predict that an association exists among them. The results show that authentic leadership is a strong predictor of employee creativity. The same results have been suggested in literature by Rego et al. (2012). Employees are more creative under authentic leaders because they feel much more engaged and empowered under their supervision. Authentic leadership has also shown positive strong correlation with work engagement, which indicates that an authentic leader is proficient enough to keep his employees more engaged and involved in their work by creating a special association with them. Giallonardo et al. (2010) also explained this relation that employees who work under leaders who show authenticity are likely to be more engaged at their work.

The hypothesis which stated that Work engagement has positive significant relation with employee creativity is also accepted in results which confirm that more engaged employees will show more creativity. When a person is more engaged in his/her work, it is naturally expected that more productive results can be achieved. Bakker et al. (2006) did a research in which they established a fact that engagement has a strong association with creativity because the respondents who possess high level of work engagement in their research showed a broad range of ways to cope with on job difficulties and problems. Work engagement is also mediating between authentic leadership and employee creativity which implies that more engaged employees who recognize their work as important part of their lives are more likely to be more creative under authentic leaders.

In our findings, authentic leadership has found to be strongly correlated with psychological empowerment which reveals the impact of an authentic leader on sense of empowerment in employees. Zue, May, and Avolio (2004) found out that there is an essential relationship among authentic leadership and empowerment. Thus, our results are confirming their findings. When a leader is authentic, he gives his employees a sense of respect and creates an extraordinary association with them in workplace. This as a result, makes the employee feel more motivated and empowered. Psychologically empowered employee feels internally motivated because he recognizes his work worth something, he know that he is capable of doing that work, he has a kind of control to one's immediate work place, and he has choice of introducing and regulating activities performed by self. All these magnitudes give the employee a boost and help him to feel empowered. Therefore, the employee can generate new ideas on regular basis and can be more creative in carrying out different tasks.

The results of the research shows psychological empowerment has positive significant relation with employee creativity which suggests that the employees who feel more empowered in their work place are going to be more creative. They will feel free to make their own decisions and will not feel hesitant to try new ideas and solutions for different problems they face in their organization.

Moreover, there are many researches in literature which hold up this link between creativity and empowerment (Seibert et al., 2011; Zhang & Bartol, 2010). Psychological empowerment is also playing role of partial mediator among authentic leadership and employee creativity. This gives an impression that employees who feel more empowered will show more creativity under the supervision of authentic leader.

5. Theoretical implications
Rego et al. (2012) and Malik et al. (2016) have suggested that more empirical research is necessary to recognize the system through which authentic leadership influences employee creativity. This is the first research which empirically tested and validated the mediating effect of work engagement and psychological empowerment on the relationship of authentic leadership and employee creativity. The results of this research supported all the hypotheses which states that authentic leadership has positive significant effect on employee creativity through work engagement and psychological empowerment. The results are considerable because they support the literature and it suggests that an authentic leader can provide an environment and working conditions that may help his employees to improve their performance especially in terms of creativity.

6. Managerial implications
The results from this research can be helpful for managers and organizations to recognize how to enhance employee's creativity through authentic leadership as our findings reveal that employees' creative behavior is linked to team leaders' authenticity. A leader must know himself in terms of his own strengths and weaknesses in order to understand that how it effects his followers and sub-ordinates. It also suggests that organizations which aspire to increase employee creativity should focus on selecting leaders with authentic features and put into practice appropriate training activities that aim to increase leader's authenticity. Organizations can support managers in achieving more authentic style so that they can affect the employees' creativity. Different methods which may include multisource feedback, the use of role playing, and arranging leaderless group discussions can increase leaders self-awareness and it will help them to take a deep insight into their employees point of view (Hsiung, 2012; Ilies et al., 2005), and it will eventually make them extra authentic in their leadership style.

Managers should pay attention to promote the work engagement and psychological empowerment of their employees through different HR practices. Work engagement and psychological empowerment should be measured through different surveys often to scrutinize their level of engagement and empowerment.

7. Conclusion
Quite a few contributions to the literature were achieved in this research. First of all we have built and tested a model which includes the impact of authentic leadership on employee creativity in the presence of work engagement and psychological empowerment as mediators. Leaders and managers should consider these findings to achieve preferred results and optimistic attitude from their employees. Different training programs need to be developed to enhance authenticity in leaders and managers in order to get maximum creativity from the employees. Furthermore, the results revealed that work engagement is a significant mediator in the association between authentic leadership and employee creativity. Authentic leaders can enhance the level of creativity in employees by influencing their work engagement levels. As it was evident from results, that employees who work under authentic leaders had high levels of work engagement. Therefore, to elevate the work engagement level of employee different HR activities should be considered and applied in organizations. Psychological empowerment was partially mediating the relation between authentic leadership and employee creativity, so it can be inferred that a more psychologically empowered employee will be more creative as compared to less empowered employee. Hence, different steps should be taken in different project-based organizations to make their employees more empowered.

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8. Limitations and future directions

There are certain limitations of this work. Firstly, this research is based on convenience sampling technique in which sample is taken which is handy and easily available. In this method, may be some groups are not included in sample. To represent the targeted population accurately, future studies should think about restating the same model with random sampling technique. Secondly, this research covers employees from development sector only which concerns the generalizability of our findings. Future studies could measure the generalizability of this model by taking samples from employees in other cultures and sectors. The same research should be carried out in some other sectors involved in projects. The same model can also be studied in countries other than Pakistan to endorse these results.

Due to shortage of resources i.e. time, the unit of analysis for this research was taken individual which otherwise could have been dyads. Future research should pay attention on some other unit of analysis i.e. Dyads, where the authentic leadership part of the questionnaire will be filled by the employee and employee creativity part will be filled by the leader.

Data were collected just once during the research; on the other hand, future studies should collect the data at different points in time (longitudinal studies) or by means of a multiple-source method. The absence of a moderating variable in the model can also be measured as a limitation.

Psychological empowerment is partially mediating between authentic leadership and employee creativity in present research, thus it should be taken as moderator in future to scrutinize if this variable has any moderating effects on the relationship of IV and DV.

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