

# LINKING EMPOWERMENT AND CAPABILITY DEVELOPMENT WITH INNOVATIVE BEHAVIOR: TESTING A MODERATING MODEL OF EMPLOYEE'S CREATIVE SELF-EFFICACY

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## Abstract

*The purpose of this study is to investigate the effect of empowerment and capability development on employee's innovative behavior. We also examine the moderating effect of worker's creative self-efficacy. The software developers working in IT firms have been selected for this study. The data were collected randomly from 200 software developers by using questionnaires. The results indicate that empowerment and capability development is significantly and positively related with employee's innovative behavior. Furthermore, the analysis revealed that employee's creative self-efficacy moderates the empowerment and capability development relationship with employee's innovative behavior. The results of the study are novel and productive for the top management of the IT sector. The study provides insight into employee's innovative behavior and suggests how organizations can boost innovations by empowerment is consistence with effective capability development programs.*

**Keywords:** Creative self-efficacy, innovative behavior, capability development, empowerment, Information Technology

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### Introduction

The increasing competitive and dynamic conditions of the markets of 21st century are elevating necessitation for organizations regarding frequent and effective development of new products and services, resulting into a stimuli for research in the instant topic (Aslam, Arfeen, Mohti, & Rahman, 2015; Spreitzer, 2008). The urge for innovation defines generation of new ideas and introduces their potential benefits by focusing roles within a work group, organization and the society (Craig, 2015; Aslam, Rehman, Imran, & Muqadas, 2016). This desire usually provides significant edge particularly in international concerns. The significance of innovation in effectiveness of organizations has wide range acceptance. Capability of an organization for innovation was admitted to be a competitive strength by Brown (1992). That's why, in previous decade capability of an organization for designing and implementing enhanced innovation for competitive edge, has got greater attention (Ertürk, 2012). Earlier researches have tried to find out the factors that improves capabilities of innovations. It was proposed by Muqadas, Rehman, Aslam, & Rahman, (2017) that internal sources like knowledge, skills, professional back ground and development programs are that internal factors which improves capabilities for innovation. It was also held to be a competitive advantage achievable through high quality work force enabling the organization to compete on the basis of its capabilities in a particular domain (Wolff & Pett, 2006). Hence, capability development program can be a key factor behind employee's innovative behavior. It was exhibited by Çakar and Ertürk (2010) in a recent study that empowerment and capability development are complimentary for each other. In the field of management, the popularity of the notion of empowerment is getting increased since last decade (Wall, Wood, & Leach, 2004). Employees are permitted to undertake certain roles and responsibilities through empowerment resulting into increased autonomy and work influence (Paré & Tremblay, 2007). It is also an admitted fact that creativity of employees

is considered to be a critical part of innovative ability of an organization and survival in creative environment has always been challenging, even then, it could not be held which type of capabilities, individuals must have for the instant purpose (Anderson, Potočnik, & Zhou, 2014). Organizational practices affect its employee's innovative capability, yet it is mainly dependent on employee's psychological characteristics. In a similar way, it was observed by Bandura and Locke (2003) "a resilient sense of efficacy provides the necessary staying power in the arduous pursuit of innovation and excellence". An auspicious implication of theory of self-efficacy in relation with employee creative performance is evident in the paradigm of creative self-efficacy (Shalley, Zhou, & Oldham, 2004). According to Tierney and Farmer (2002) creative self-efficacy is "one's ability to produce creative outcomes". In this nexus, the creative self-efficacy can hold for workplace creativity and employee's innovative behavior, yet necessitating the need to probe a number of issues related to the theory (Malik, Butt, & Choi, 2015). Most innovation research has followed efficiency perspective (Janssen, Vliert, & West, 2004), assuming therein that rational decisions are made by the organizations by adopting innovation for maximizing their efficiency gains for reviews on this dominant perspective, that was implicitly assumed by most of early studies on adoption, innovation and diffusion (Farr & Ford, 1990). The opinion based on efficiency is partially accountable for the pro innovation bias i.e. the opinion that innovation is advantageous for the individuals and the organizations. But at the other hand organizational behavior side is ignored most of the time and organizational culture variable and its various dimensions are overlooked, especially in developing countries like Pakistan (Malik et al., 2015). It is reported that psychologically empowered people feel a positive change in their attitude, behavior and cognition which leads them towards innovative ideas. Organizational culture can be an inhibitor or activator for process of innovation. In Pakistan both factors are neglected to a great extent (Mariam et al., 2015). In a recent study Gul et al. (2012) recognized that employees demand empowerment and training complemented with promotions or compensation. The study

was conducted in the banking sector of Pakistan. Prior research has mostly focused on technical aspect of the organization and ignored human and psychological aspects of organization in Pakistan (Ahmad et al., 2016). This study intends to fulfill this gap. In this context, the current study aims to investigate the impact of empowerment and capability development on employee's innovative behavior. The study also intends to test the moderating effect of creative self-efficacy on the association between organizational culture and innovative behavior.

### **Literature Review**

#### *Innovative Behavior*

Organizations should persistently seek innovation and must develop high quality products/services besides timely and low cost delivery than their competitors, for competing in the global market. That's why, now employees are supposed to be creative within prescribed standards of work, efficiency and within budgetary limits. These limits can be overwhelmed by development of innovative notions and designs including their successful implementation (Cordero, Walsh, & Kirchoff, 2005). Previous researches have taken innovative behavior as a multi-dimensional process, including more than just the output of creative ideas (Karin, Matthijs, Nicole, Sandra, & Claudia, 2010). The Fit Model established by Schneider, Smith, and Paul (2001), proposed that potential of individuals produces best results when practices of organizations are corresponding with their own interest, capabilities and work values. For example, a culture that promotes innovation is one that allows the most creative employees to manifest their creativity in their performance. As per the Fit Model, personal characteristics of the employee leading towards innovation and the culture of organization both are equally responsible for the innovative product of the organization.

#### *Empowerment*

In the field of management, since last decade, the concept of empowerment got increased admiration (Voegtlin, Boehm, & Bruch,

2015). Empowerment has focused on that managerial techniques which are designed to “empower” employees, like delegating them decision making, greater accesses of organization’s resources and information helping them in decision making (Spreitzer, Kizilos, & Nason, 1997). Importance of successful application of empowerment was held by Ford and Randolph (1992), in innovation and performance of new product. Actually, the influence of employee empowerment on innovation is not decided and is yet debatable.

Definitely, literature review of these topics proved that empirical researches have analyzed relationship of those variables that have been controversial in the subject. Empowerment was found to have no effect on the innovative ability of the company by Kmiecik, Michna, and Meczynska (2012). However, a positive relationship was held between innovation and empowerment by some researchers (Berraies, Chaher, & Yahia, 2014; Erturk, 2012). Furthermore, in an early research Ogbonna and Harris (2000) pointed out that the process of participative in decision-making and information sharing throughout the organization, proved strength in innovation culture and innovation capability of an organization. Based on the aforementioned findings, we hypothesized:

**H<sub>1a</sub>**: Employee empowerment has significant impact on employee’s innovative behavior.

#### *Capability Development*

In developing competitive advantage, increased competitive markets and the globalization dully supplemented with the factors of demand are taken to be of milestone importance (Porter & Millar, 1985). Conversely, an exogenously determining perspective on the role of conditions and drivers of competitive advantage may not play only. It must also have to be accompanied with resource based viewpoint, essential for the likelihood of individuals of the firm develop and use resources of the firm pro-actively with strategy of detecting and

detaining ever changing external opportunities and conditions (Teece, 2007). In this mode, the importance for the development of particular resources for assuring competitive advantage in individuals firms with other firms is significantly focused (Peteraf, 1993). Depending upon their human and other resources, their routines, relations and competition in the market, the organizations should develop their internal resources. Fundamentally, the ability of changing procedures and routines for the purpose of reconfiguring and mobilizing tacit and intangible resources of the firm is known as dynamic capability. The management literature reported that capability development is an important element which can elevate innovative behavior (Grant, 1991). It was also recognized that some managerial activities support capabilities development which in results enhances innovation (Fernandez & Moldogaziev, 2013). In this context, we hypothesized:

**H2a:** Capability development has significant impact on employee's innovative behavior.

#### *Creative self-efficacy*

Self-efficacy is confidence in one's ability to get success in particular situations or accomplishment of a certain task (Saboor, Arfeen, & Mohti, 2015). Employees establish fortitudes about their capacities moderately depending upon how they see themselves (Gist & Mitchell, 1992). Kumar and Uzkuurt (2011), established the influence of self-efficacy on the innovativeness of professionals with a cultural background. Among the Turkish consumers, a positive relationship was indicated between self-efficacy and innovativeness. But there is lack of work on self-efficacy as a moderator; especially creative self-efficacy is not explored for its moderating effect in software development firms in Pakistan. In the context of this research creative self-efficacy was employed, referring to "the belief that one has the ability to produce creative outcomes" (Tierney & Farmer, 2002). In dissimilarity with earlier studies mediated or direct effects of creative self-efficacy on innovation or creative performance were exhibited

(Choi, 2004; Gong, Huang, & Farh, 2009). However, focus of present study is on moderating role. There are strong chances that employees with great sense of self-efficacy may result in more creative behavior. So, the idea of relationship between innovative work behavior and self-efficacy is established up to some extent.

**H1<sub>p</sub>:** Employee's creative self-efficacy moderates the association between employee's empowerment and employee's innovative behavior.

**H2<sub>p</sub>:** Employee's creative self-efficacy moderates the association between capability development and employee's innovative behavior.

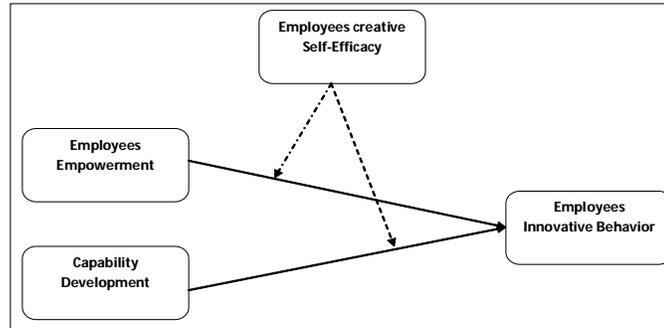
#### *Research Objectives*

Some specific objectives are given bellow

- ❖ To find out the empowerment and capability development relationship with employees' innovative behavior.
- ❖ To what extent employee's creative self- efficacy moderate empowerment and capability development association with employee' innovative behavior.

#### *Theoretical Framework*

On the basis of literature review the following prepositions are posited that is presented in proposed research model in figure given bellow:



### Research Design

Research model was positive focusing on the cause and effect relationship which can be confirmed by the data analysis. Research paradigm was also based on deductive reasoning approach having concern with the development of hypothesis built on existing theory testing of the hypothesis by designing a research methodology (Aslam, Ilyas, Imran, & Rahman, 2016; Rehman, Ilyas, Aslam, & Imran, 2016).

### *Sample and Procedure*

For empirical testing of proposed hypotheses, the data was collected from software developers, employed in twenty information technology (IT) companies performing in Punjab Pakistan. Sample size was 200 which was calculated with help of formula adopted from (Zikmund et al., 2012). Data was acquired with the help of a structured questionnaire. All dimensions and quantities of the questionnaire were formerly developed in English. A pilot study was conducted preceding administration of the questionnaire which proved that scales have been certainly and easily understood by the employees of IT firm. By hand distribution of questionnaires to each company was managed using a covering letter explaining therein the drive of

the survey and note for voluntary participation along with assurance of confidentiality. Furthermore, for the purpose of anonymity, research respondents were required to return the completed questionnaires directly to the research assistant.

### *Measures*

All the items were measured on a seven point Likert-type scale where 1 indicates “strongly disagree” and 7 indicates “strongly agree”. In this study, we measured empowerment with a 12-item scale developed and tested by Spreitzer (1995). A 5-item scale, adopted from the work of Cho (2000) was used to measure capability development at organizational level. Employee’s innovative behavior was assessed by nine items based on Scott and Bruce’s (1994) scale for individual innovative behavior in the workplace. A scale developed by Schwarzer (1999) is more reliable in operationalizing self-efficacy. A five item scale was used to assess creative –self-efficacy from the work of Malik et al. (2015).

### *Reliability*

To measure the internal consistency of scale, reliability analysis was performed. Scales reliability was consistent with previous studies and in acceptable limits. To test the scales reliability, a pilot study was conducted. For this purpose data was collected from 50 respondents. It was determined with the help of Cronbach alpha ( $\alpha$ ). Table 1 contains results of reliability analysis.

**Table 1:**  
*Reliability Results*

Sr.#	Constructs	No Of Items	Cronbach Alpha
1	Empowerment	12	0.89
2	Capability Development	5	0.77
3	Creative Self-efficacy	5	0.82
4	Innovative Behavior	9	0.73

### Data Analysis

**Table 2:**

*Descriptive Statistics Results and correlations*

Sr. #	Variable	No Of Items	Mean	S.D	1	2	3	4
1	Empowerment	12	3.85	0.25	1			
2	Capability Development	5	4.25	0.16	0.70**	1		
3	Creative Self-efficacy	5	3.60	0.20	0.34**	0.26**	1	
4	Innovative Behavior	9	3.45	0.15	0.38**	0.32**	0.30**	1

\*\* Correlation is significant at the 0.01 level

Out of total distribution of 200 questionnaires, completed questionnaires received back were having 86.5% response rate. After deletions of records of missing cases, 161 questionnaires established study sample. A part of the research data was demographics like gender, age and total service length / tenure in the company, while no other personal information was taken. The average respondent was  $34 \pm 9$  years old. The sample comprised of 61.57% male and 38.43% female. Respondent's average tenure in the company was worked out to be 4.5 years.

#### *Hypothesis Testing*

In order to investigate the hypothesis, hierarchical regression analysis was performed. Moderated regression was used (Cohen, Cohen, West, & Aiken, 1983), in which employee's innovative behavior was dependent variable. In step one empowerment and capability development were introduced in equation. In step two, creative self-efficacy (the moderator variable) was introduced. Next the two way interactions (empowerment\* moderator, capability development\* moderator) with creative self-efficacy were entered in the equation one at time step 3. The moderation hypothesis was supported only if the two way interaction is different from zero and statistically significant. This would indicate that there is significant interaction effect between relevant independent variables on the

dependent variable. Results of regression analysis are presented in table 3 given below.

### **Regression Analysis**

Regression analysis revealed that empowerment ( $\beta=0.20$ ,  $p<0.01$ ), capability development ( $\beta=0.24$ ,  $p<0.01$ ) were positively related to employee's innovative behavior and results were statistically significant. Thus, our first two hypotheses which suggested that empowerment and capability development have significant impact on employee's innovative behavior were supported.

Dependent Variable					
Table 3: Regression analysis Result					
(Innovative Behavior)					
Independent Variables	$\beta$ - Value	T-Value	F-Value	R <sup>2</sup>	Adj.R <sup>2</sup>
<i>Step 1</i>			18.78**	0.14	0.13
EM	0.20	3.398			
CD	0.24	4.065			
<i>Step 2</i>			23.60**	0.17	0.16
CSE	0.26	6.55			
<i>Step 3</i>			26.20	0.22	0.20
CSE*EM	0.22	3.12			
CSE*CD	0.16	2.28			

Keeping in view moderation analysis, interaction amid creative self-efficacy and empowerment was observed to be deferent from zero and statistically significant ( $\beta=0.22$ ,  $p<0.01$ ). This finding supports our third hypothesis suggesting that creative self-efficacy moderates the relationship between empowerment and employee's innovative behavior. Furthermore, regression results disclose that interaction between creative self-efficacy and capability development is also different from zero. Hence statistical results ( $\beta=0.16$ ,  $p<0.01$ ) prove that employee's creative self-efficacy moderates the relationship between capability development and employee's innovative behavior, so our 4<sup>th</sup> and last hypothesis is also accepted.

### Discussion and Conclusion

The role of empowerment and capability development and employee's creative self-efficacy in fostering their innovative behavior was engrossed in the instant research. In line with prospects and preceding research (Berraies et al., 2014), empowerment was positively and statically significantly related to employee's innovative behavior. Another significant impact of the study is provision of empirical indication regarding significant positive association between capability development and employee, innovative behavior (Fernandez & Moldogaziev, 2013). The unique and novel contribution of the study is that empowerment and capability development positive association with employee's innovative behavior is moderated by employee's creative self-efficacy. According to findings of this study, when employee's creative self-efficacy is high, they become more innovative and come with novel ideas. So trainings must be imparted to hem which are supposed to enhance their creative self-efficacy and in result they will become more innovative and provide a base for competitive edge in market arena.

Prior research revealed that innovation capability is a crucial competitive advantage for organizations, being very important for creating wealth, economic and business growth (Beckman & Barry, 2007). Organizations have been increasingly searching new means for effectively enhancing their innovative ability. Innovating successfully for organizations is usually linked with good performance having related with consequent growth. In an increasingly hostile and continuously changing business environment, innovation signifies not only growth but means of survival as well. Thus, for the long-term sustainable success of the organization's strategies, managers should try to increase employees innovation capability by stimulating their innovative behavior.

For achieving this, a manager's focus should be on empowerment of employees and put more effort capability

development. Managers should be careful about empowerment processes. By fashioning an environment of empowered work place throughout the organization, managers can enhance their ability to increase employee's innovative behaviors and capability to innovate, which is very essential for organization's sustainable achievement. Nevertheless in this research, it is also suggested that creative self-efficacy would moderate the relationship between independent variables and dependent variable. Thus, alternative policies and programs should be implemented for those, who were low in creative self-efficacy, so that the empowerment and capability development could be more effectual and operational on innovation.

Several implications have been proposed from practical and theoretical viewpoints. The differential influences of the variables examined point out a need to identify importance of empowerment and capability development and to employ creative self-efficacy foci. The findings also reinforce the notion that it is crucial for organizations to discover how to enhance employee's creative self-efficacy. If organizations desire to have more innovative employees, and thus high performing organizations, they should formulate the human resources practices that promote employee empowerment and create capability development programs as well.

### **Limitations and Future Directions**

Budding limitations in the design of the research must have to be considered while evaluating contribution and findings of the instant study. First of all, a bit high correlation between some scales might point out speculation in the items counting towards desirability bias and positivity. While, on the other hand it is proposed that the organizational culture scales had discrete relations with other measures. Therefore, should be given separate and considerable weightage.

Secondly, the data was cross sectional making its causal implication, impossible. All the variables were measured at the same time and from the same source. So in order to avoid proceeding of all

dependent variables on all independent variables, the scales were ordered in the actual survey. However, longitudinal designs, in which both predicting and criteria variables have been measured over time, must be mostly useful extensions of the contemporary study. Context of the research has limited and bounded the findings, implications and conclusions of the research but future researches can make replica of this study quite in several distinct ways. We are also of the firm belief that researches in future that would be assessing analogous data from various backgrounds will deliver informative validation of this study. Moreover, by the investigation of firm's other specific effects and managerial implications, such as perceptions, leadership, justice, rewards on innovating behavior may guide practitioners and academicians to have an enhanced understanding of the determinants of innovativeness.

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