

**CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD**



**Impact of Innovative Leadership on Project
Employee Creativity, with Mediating Role of
Creative Self Efficacy and Moderating Role of
Project Collaborative Culture**

by

Tayyaba Saleem

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

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Department of Management Sciences**

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*Dedicated to my parents who dedicated their life to teach me how to step
forward...!*



CERTIFICATE OF APPROVAL

Impact of Innovative Leadership on Project Employee Creativity, with Mediating Role of Creative Self Efficacy and Moderating Role of Project Collaborative Culture

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Abstract

The purpose of the study is to understand how Innovative leadership (IL) contributes to Project Employee Creativity (PEC) in Project based organizations. The study proposes a framework to examine mediating role of creative self efficacy (CSE) between the relationship of Innovative leadership and project employee creativity. Furthermore, moderating role of project collaborative culture (PCC) is examined between innovative leadership and creative self efficacy. The data was collected from 250 employees working in different project based organizations. The data was analyzed. The results of the study demonstrated that innovative leadership is positively linked to project employee creativity. When leaders are innovative, they promote and motivate employee's contribution towards their objective. The mediating role of creative self efficacy is also significant between the relationship of innovative leadership and project employee creativity. On the other hand, study indicates that project collaborative culture strengthens the relationship between innovative leadership and creative self efficacy. Implications, limitations ad future research direction are discussed in the end.

Keywords: Innovative Leadership, Creative Self Efficacy, Project Employee Creativity, Project Collaborative Culture

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Abbreviations

CSE	Creative Self Efficacy
DV	Dependent Variable
H	Hypothesis
IL	Innovative Leadership
IV	Independent Variable
PCC	Project Collaborative Culture
PEC	Project Employee Creativity

Chapter 1

Introduction

1.1 Background of the Study

In organizations, the critical part of leadership is to influence the standards, thinking and behavioral expectancy that employees embrace (Verburg, 2019). For that reason, leader place a huge effort into development and alternation in culture of firms (Xenikou, 2017). The leader's role is of great significance for accomplishment of any goal, as he encourages the employees and generates a creative working climate to compete the organizational challenges (Anantatmula, 2010; Skinner, Smith, & Swanson, 2018).

Leadership is a key predictor of employee, team, and organizational creativity and innovation (Jiang & Chen, 2018). One of the main roles of the leader is to encourage their employee for the accomplishment of their tasks (Lai, Hsu, & Li, 2018). Leader's personal traits for example demographics characteristics, expertise and individuality form their leadership manners (Pastor & Mayo, 2008). Leadership increases the creative endeavor in an organization and become a part of innovation (Uddin, Fan, Das, et al., 2017). It's the responsibility of management to enroll which leadership is productive because success of team project depends on leadership (Keller, 1995). Organizations should focus on the style of leadership and working environment (Rifaldi, Ramadhini, & Usman, 2019).

Employees are always directed by their effective leaders for productive end result. Effective leader engage their employees by innovative process that involves defining issues, solving those issues and implementing the new solution (Schoemaker, Heaton, & Teece, 2018). Leader is to encourage followers to keep them busy in activities that result out in the success of the organization objectives. All leaders are not motivating their employees to think innovative. Leadership role is critical towards implementing creative organizational plan and encouraging group vision towards innovation (Zheng, Wu, & Xie, 2017).

An organization needs to be executing projects efficiently (Reich, 2007). One can see project as former case, i.e. a short-term effort carried out to produce an individual result (PMI, 2008a, p.5). Project based organization can be regarded as organization which generate products and outcomes by projects else for internal or external clients (Turner & Keegan, 2000). In project based organization, they easily take action towards customer changing needs and developed organizational structure for every demanding product (Gemunden, Lehner, & Kock, 2018). Currently, project based organizations are increasing tendency in corporate organizations (Pensel & Müller, 2012) and majority of their activities are carried out in terms of project (Project Management Institute, 2004).

Innovation is not superfluity but this is the need of 21st century organizations for their competitive edge (Kremer, Villamor, & Aguinis, 2019). Innovation means modification which has influence on exterior environment (Hayward, 1986). Innovation is basically defined in two terms: product innovation and process innovation. Product innovation is to gain client satisfaction by organization competency of producing new creative products. While, Process innovation reveals organization capability of suggesting better practices than existing process to enhance performance (Tsai, Huang, & Kao, 2001). Innovation and creativity are significant for organizations to survive. And they both strengthen each other (Hong, Hou, Zhu, & Marinova, 2018).

Researcher have embedded that innovation initiates from employees creative thoughts. Hence employees modify their jobs and place of work through their innovative performance in order to get done their preferred objective. Employees reform their

ideas and perception to resolve problems, and lastly perform creative activities (Chang & Yang, 2012). Project based organizations play an important role in creation of novel projects (Artto, Kulvik, Poskela, & Turkulainen, 2011).

Innovation is central to leadership and leadership supports and endorses innovative style of leadership. Leadership being innovative in nature promotes creative ideas (Pieterse, Van Knippenberg, Schippers, & Stam, 2010). The main focus in this research is how much leader is innovative in any organization, so that he will be able to make his employees confident and strengthen their self belief and hence employee's creativity will increase. Leader of the organization is responsible for the improved employee creativity (Duan, Liu, & Che, 2018).

Adjei (2013) define innovative leadership as the mixture of various leadership styles within organization to influence employees to generate creative ideas and solution. Innovative leadership is one of leadership style that inspires their followers to work hard and creative for a common objective (Khalili, 2017). Innovative leadership is positively linked to project employee creativity in addition to dependency of employees on their leader. According to the research innovative performance of the employees is associated with employee's self efficacy and their enthusiasm towards innovation (Zacher, Robinson, & Rosing, 2016). Innovative leadership is strongly task oriented, who promotes individual ideas, Prominence team association, clarify responsibilities and provides inspiring and motivating surroundings to his employees (Carmeli, Gelbard, & Gefen, 2010).

Innovative leader are practical and future oriented (Turner, 2018). Current study is to examine the association within innovative leadership and employee creativity to the context of project based organizations (Lukoschek, Gerlach, Stock, & Xin, 2018). When employees get stable in their own positions, they are probably turn out be more defensive and drift from collaborative to more competitive outlook. Innovative leadership being creative in nature stimulates the employees to think in a creative way to get solutions. These practices of leader foster project employee creativity (Mittal & Dhar, 2015).

Employees prove themselves more creative under innovative leadership. Innovative leader is one who governs the change process and promotes presentation of new

ideas and suggestions in a firm by creating supportive environment (Basadur, 2004; Newman, Herman, Schwarz, & Nielsen, 2018).

Creative self efficacy (CSE) is someone's own worth to bring novelty, sustaining effort that gives confidence to the person to produce creative end results (Choi, 2004). Creative self efficacy makes you able to motivate and function better in your tasks with an innovative approach. Knowledge is the power which enhance self efficacy (Tierney & Farmer, 2002; Dewett, 2007).

Self efficacy has particular type that is creative self efficacy (Tierney & Farmer, 2002). Personal efficacy motivates employees to keep trying for their survival in demanding situations. A person having strong belief of performing with improved vision shows the degree of belief in oneself. Our findings of creative self efficacy act like a mediator for creativity playing a part in the development of responsive aspect of creativity (Zhang & Zhou, 2014).

Motivation to take risks is a vital source towards creativity (Maurer & London, 2018). Team creativity is not only the medium for project employee creativity, it the outcome of social impact emerging from the creative acts of employees (Li, Li, & Lin, 2019). Creativity of a manager is directly related to project employee's creativity and its ideas, so it is considered that top level of organizational encouragement to employees endorse their creative self efficacy and outcomes in a more creative manner (Koseoglu, Liu, & Shalley, 2017).

Project employee creativity could be defined in terms of formation of novel and effective concepts regarding production of new services, mechanized techniques and process leads to firm promotion in competitive ambiance (Woodman, Sawyer, & Griffin, 1993). Leading creativity includes both identifying employees having creative potential and knowledge of how the team environment affects the employee's creativity with different temperaments (Hirst, Van Knippenberg, & Zhou, 2009). Furthermore, Project employee creativity is considered valuable for the successful achievement of the organization (Egan, 2005).

Project employee creativity (PEC) is dependent on team self motivation and essential for organizations enlargement (Bai, Lin, & Li, 2016). Project employee

creativity concentrates on both novelty and appropriateness (De Dreu & van Knippenberg, 2005). Several factors affect the project employee creativity that includes leadership styles (Zhang & Bartol, 2010), positive environment (Madjar, Oldham, & Pratt, 2002) and culture of the organization (Hahn, Lee, & Lee, 2015).

Project employee's creativity is an important root for bringing innovation in organization (Shalley, 1991; Zhou, 2003). Research about creativity reveals that innovation is source of creativity and they required employee's creativity when the objectives are challenging (Amabile, Conti, Coon, Lazenby, & Herron, 1996). Successful implementation of the project depends on innovative behaviors of members of the project (Lei, Lai, & Chen, 2018).

Organizations are collaborating with projects increasingly (Geraldi, Maylor, & Williams, 2011), which becomes the source of controlling change and improvement within organization (Backlund & Sundqvist, 2018). A supporting innovation environment is created by leadership (Zach, 2016). A social environmental element inside an organization influences both creative self efficacy and employees to work in an innovative (Tschannen-Moran, 2001). Yong (1994) consider that trustworthy environment is main factor in encouraging and motivating employees' to propose novel ideas. Innovation success is surely depends on collaborations for innovation (Alonso & Liu, 2012).

Leadership that promotes innovation plays a vital role in generating a project collaborative culture that facilitates the desirable exchange of information (Zach, 2016). Collaboration has three layers: organizational unit, prompt senior and colleagues in group of experts (Tschannen-Moran, 2001). Collaborative culture based on esteem, respect for each other and assistance (Le & Lei, 2017). Project Collaborative culture is the central part of organizational culture that demonstrates team effort, exchange of ideas, supporting individual's initiative, group work, risk indication and admiration (Lopez, Manuel Montes Peon, & Jose Vazquez Ordas, 2004).

Project collaborative culture is the source of generating shared asset because it assembles the participation of all employees towards the standard goal. As a result it fosters the organization to be more creative. Project collaborative culture in

organization enhances the employee's performance which in turn endorses their potential creativity (Yang, Nguyen, & Le, 2018).

Organizational culture is subjected to collaborative environment, creating straight forwardness and trust which encourage employees to share more thoughts and ideas for innovation (Donate & Guadamillas, 2011; Yang et al., 2018).

1.2 Gap Analysis

The present study is addressing theoretical and contextual gaps in the literature of innovative leadership with project employee creativity and creative self efficacy. In consideration of fast paced and temporary nature of project based organizations, innovation is a concern for all leaders. Present study is a response to call by Lukoschek et al. (2018) to inspect the innovative role of leader on project employee creativity working in project based organizations. Lee and Yang (2015) also suggested studying the role of creative self efficacy on Project employee creativity. The study is going to addressing this gap. Furthermore, moderating role of Project collaborative culture in different organization is used. But Project collaborative culture in Project based organization is missing in the literature. This study test the impact of Innovative leadership on project employee creativity in Project based organizations with moderating role of project Collaborative Culture in contextual setting of Pakistan.

1.3 Problem Statement

Innovation and creativity are the life blood of organization in this fast growing and rapidly changing environment. For this purpose, organization needs their employees to be creative. But little number of studies has explored the how of employee creativity. Employees in their firms are not getting supportive and creative environment. So there we need a role of innovative leader who boosts up their self belief and willingness to do their work by building innovative ideas and collaborative culture, as a result employee's creativity will enhance. Every single

organization needs creative and innovative employees and managers because it becomes the requirement of time to produce creative and build successful projects (Oldham & Cummings, 1996).

This concept has not been tested in the domain of project based organizations. Employees often fear of approval when they communicate their ideas and passion while talking to their leader or manager because they are lacking willpower.

Furthermore moderating role of project collaborative culture with the relationship of Innovative leadership and creative self efficacy has not been tested during previous studies particularly. By analyzing the relationship between variables will help out to recognize the consequences of innovative leadership on project employee creativity.

1.4 Research Questions

As a result of above stated problems, the current research is supposed to find out the solution of under question.

Research Question 1

Does Innovative leadership influence project employee creativity?

Research Question 2

Does Creative self efficacy mediates the relationship between innovative leadership and Project employee creativity?

Research Question 3

Does Project collaborative culture moderate the relationship?

1.5 Objective of the Study

The main aim of the study adds up to formulate and originate a frame to recognize the link among innovative leader and project employee innovations. Besides the moderating role of project collaborative culture is considered to enhance the

relation of innovative leadership and creative personal efficacy. The suggested relation between independent, mediating, moderating and dependent variables is demonstrated in the model of study. The Specific aims of the research are listed below:

Research Objective 1

To determine the relationship of Innovative Leadership and Project employee creativity.

Research Objective 2

To examine mediation between Innovative Leadership and Project employee creativity through creative self efficacy.

Research Objective 3

To inspect moderation of Project collaborative culture on the relationship of Innovative leadership and Creative self efficacy.

1.6 Significance of the Study

This study will fulfill the existing theoretical gap in previous literature because the research on Innovative leadership effect on project employee creativity through creative self efficacy had never been discussed in the field of project management. Creative behavior of a leader leads to increase the motivation level of their employees in the form of increased self efficacy. As this study has not done in last previous ages, so it will add more positivity in a creative manner towards the individuals creativity by the involvement of innovative leader through creative self efficacy, so that useful and novel ideas can be originated by employees in the organization.

Employees are always directed by their effective leaders for productive end result. Effective leader engage their employees by innovative process that involves defining issues, solving those issues and implementing the new solution (Schoemaker et al., 2018). This research will reveal the positive effect towards project employee creativity through innovative leader under collaborative culture of organization. Collaborative culture provides employees an enabling ambiance. It is

significant towards creativity and novelty of employees in organization (Simonin, 1997). Innovation-carrying environment and employee stimulation significantly affects the creative performance of the employee (Bammens, 2016).

Organizations ability to compete is particularly reliant on employee's creativity that introduces new and effective ideas which are momentous for the creation of advanced products and services (Carmeli et al., 2010). But leadership is considered as the most important factor that increases employee performance and creativity (Jung, 2001). This is the different scope which is not experienced until now with all variables (Innovative leadership, Project employee creativity, and creative self efficacy and Project collaborative culture) in project based organizations.

In addition, this study has considerable managerial implications. This model helps out management to better understand how innovative leader supports creative self efficacy, and how through help of creative self efficacy, project employee creativity can be increased. Finally, how project collaborative culture moderates these relationships in project based organizations.

1.7 Theories

Social learning theory is consumed as our theory foundation. Social learning theory developed by (Bandura, 1977).

1.7.1 Overarching Theory

Social learning theory is a theory of learning process and it states that how people learn new behaviors, values and attitude from one another through observation and their surroundings. It supports our model that employee's learn creative behavior from his leader and from environment in which he is working. Social learning theory helps to understand the relationship between leader and employee. There must be strong will of the leader to be innovative that is important for the development of innovative climate within organizations.

If the leader is innovative, he will give innovative ideas and motivate employees and by this creativity will transfer into his employees. If the employees who are working in organizations produce creative outcome, then their creative attitude will shift to other employees as well and a complete collaborative culture is created.

Employee will respond same as the leader respond toward him. Project Employee creativity should be the first preference of their leader. If the leader is innovative and motivate, employee will learn and respond in the shape of creative self efficacy. Employees and subordinate respond more positively when their leader benefits them ([Hollander, 1978](#)).

The more employees' work in supporting environment, more they will be appreciated and more they will work hard for the organization. Employees not feel opposition and are expected to speak and questions more in reliable environment which in turn provoke new create ideas and promote employee innovative performance ([Yu, Mai, Tsai, & Dai, 2018](#)). People having high creative self efficacy are motivate and in results they take problems and challenges as opportunity.

Chapter 2

Literature Review

2.1 Innovative Leadership and Project Employee Creativity

Creativity can come in the form of end result and a process (Gilson, Lim, Litchfield, & Gilson, 2015). Creativity, the creation of novel ideas, is essential to employee performance with organizations success and innovation (Zhou & Su, 2010). Creativity is primary step for innovation (Zhang & Bartol, 2010). Novel ideas help out organization to enhance their performance. A productive approach of resolving problems leads to increase competence and effectiveness (Kucharska & Kowalczyk, 2016).

Creativity is a high-risk operation having failure of high probability. Employees who have eagerness to take risk show more creativity (Duan et al., 2018). Researchers suggested creativity is a recurring and repeated process of idea creation and implementation as it not only takes place in initial phase of innovation process (Paulus, 2002). Innovation includes both generation of creative ideas in first phase and their execution in the second phase (Shalley & Zhou, 2008).

It's been a main area in the field of research to explore the accuracy that creativity and innovation are two distinct differences (Hulsheger, Anderson, & Salgado, 2009). Innovation and creativity turn out to be progressively major motive

of organizational achievement and success. Obviously the idea creation and implementation become the foundation of individual competitive edge (Anderson, Potočnik, & Zhou, 2014). Organizations needed to unify with leaders who can suggest creative solutions. This will foster innovation and creativity (Williams & Foti, 2011). Creativity in project teams plays a role of bridge between project employee creativity and organizational creativity (Chen, 2006).

Leadership capabilities are major source for successful innovative leadership (Heizer & Render, 2011). Managers promote project employee creativity through a style of leadership. So, it is very necessary to figure out the influences of various leadership styles on creativity (Cai, Lysova, Khapova, & Bossink, 2019). An effective Leadership style starts and ends with value basis. Values control the leader's relation with employees and proved to be helpful for creating a close environment with respect to one another. Literature suggests that values are important for establishing successful innovative style of leadership within the organizations (Sen & Eren, 2012). Innovative leadership is practice of giving direction that leads to create and implement something novel that is significant for the organization (Ailin & Lindgren, 2008).

Innovative leaders are be aware of past, observe the present and forecast the future and create a vision for bringing change. Their shared vision motivates and unites the employees towards common goal (Sen, 2007). Innovative leadership shows a leading role in achieving the competitive edge of creativity in support of organizations. Innovative leadership has been defined in three terms including facilitating, integrating and directing. Facilitating increases the creativity of employees as leader involvement is inventive. Integration merges the employee's contribution with leader's contribution. Directing is that employee is pulling off the leader's idea. Innovative leadership carries out a dominant part in perceiving the combative edge for creativity in favor of organizations (Randel & Jaussi, 2019).

The literature suggests two styles of innovative leadership: the transformational or transactional leadership forms across the organization, and leadership behavior pattern in innovation managing literature (Bossink, 2004). Leadership growth based upon intrepidity, creativity and collaboration that lead towards innovative

style of leadership. Innovative leaders have self-assurance in themselves. Creating innovative process to bring organization to a higher point is a source towards successful leadership (Kouzes & Posner, 2012). Therefore, Innovative style of leadership foster the employee's creativity when followed by different independent parameter which is basis of employee acceptance towards leadership and social related situations (Gagne & Deci, 2005). Innovative style of leadership notice the interest of his employees and stimulate them (Imran, Ilyas, & Aslam, 2016).

All employees are not likely equally creative. Some employees have higher level of creativity than other employees. Each employee has capacity to generate creative ideas that enhance the innovation (Fairbank & Williams, 2001). Project employee creativity is vital factor for any organization to sustain a definite competitive advantage in the marketplace (Anderson, De Dreu, & Nijstad, 2004). Project Employee creativity depends on both organization's innovativeness and creativity. Employee and creativity of an employee are consequences of their culture, public relation and education (Abdelmotaleb, Mohamed Metwally, & Saha, 2018). Project Employee creativity has an important role in promoting the organization effectiveness in today's climate (Zhou & Hoever, 2014). The literature on Project employee's creativity gives understanding of creativity outputs (Gong, Huang, & Farh, 2009). With the aim to support and strengthen employee's creative performance, organizations recruit employees having more creative potential, provide them trainings and re structure their rewards system (Jiang, Wang, & Zhao, 2012).

Amabile (1988) was probably the first one to initiate a theory based structure to find out the individual and environmental elements that promote or prevent employee creativity. Effective Leadership results in organizational productivity and employee performance efficiency. Innovative leader is generally understood to be both challenging and demanding (Murphy & Ensher, 2008). Along with innovative style of leadership, leaders play massive role in promoting innovation in organizations particularly the roles that urge innovation and creativity. Innovation comes out to be a realistic and successful with a proper leadership and without it, it is impossible (Hunter & Cushenbery, 2011). Innovative leadership focus on constant transformation and change as far as it expands over the entire

organization. Innovative leader is directed at all levels of management for idea generation. They keep influencing their employees which increase their creativity. Their self confidence in their employees made them grow and cultivate (Mantzaris, 2016). So we can say that innovative way of leadership promotes variation and tends to increase the self confidence of their employees in organizations.

Innovative leader supports courtesy and admired sharing of suggestions. Leader is aware of new employees in the firm and makes them feel that their ideas are important as of other team members. He supports his employees and managers throughout whole organization (Kremer et al., 2019).

Besides, creative performance of employees may influenced by the environmental factors like type of leadership (Wang, Tsai, & Tsai, 2014). In this fast competitive world, Innovation and project employee creativity are most essential factors towards success in the organizations. Leaders know very well how to keep their employees motivated and creative towards their goals. Employees trust on their leader, which promotes the project employees creativity (Chow, 2018). Researchers are promoting project employee creativity through definite leadership (Gupta, Singh, Kumar, & Bhattacharya, 2012).

Scholars propose that project employee's creativity can be influenced in both direct and indirect ways. Directly, leaders provide intrinsic motivation and high rising needs to his followers that lead towards the creativity. In case of indirect effect, leader provide them trustworthy environment so that employees experiment and test different approaches without being anxious of disapproving results, this increase their creativity (Jung, Chow, & Wu, 2003). These three critical factors endorse the employee creativity in organizations: person's creative thinking ability, knowledge based on past experience and favorable creative work environment (Amabile, 1998).

Organizations ability to compete is particularly reliant on project employee's creativity that introduces new and effective ideas which are momentous for the creation of advanced products and services (Carmeli et al., 2010). But leadership is considered as the most important factor that increases project employee performance and creativity (Amabile et al., 1996; Jung, 2001).

Innovation describes leadership in different manners that lead towards the creativity of employee's by emphasizing on that leaders should promote innovation and endorse it (Caridi-Zahavi, Carmeli, & Arazy, 2016). Employees should be encouraged to support the innovative changes in organizations (Ozaki, 1991). Innovative behavior of employees includes creating innovative thought and way out towards the problems by which they reveal the ability to do innovation (Jong & Den Hartog, 2007). Innovative leadership has direct relationship to creativity with respect to organizational support. The innovative leader is open to vision and play his role in planning, decision-making, completion of outputs that seeks to be innovative both in theory and practice. Innovative leader outline the structure and success of innovative efforts inside the organization (Mantzaris, 2016).

Innovative leader provide their employees a fearless environment and give challenges. He serves as mentor for their employees and followers (Harms & Crede, 2010). Researcher suggests that innovative leader endeavor is to bring creativity between employees and foster their creativity in organization (Gilson et al., 2015). Innovative leadership raises the Project employee creativity by increasing their idea generation and applying their suggestions in organization division (Anderson et al., 2014; Birdi, Leach, & Magadley, 2016). This support that innovative leader play an important role in increasing employee's creativity.

Visionary leader is the characteristics of innovative leadership (Maladzhi, Yan, & Makinde, 2012). Visionary leadership has direct effect on employee's performances that comes out in the form of trust on their leader, assurance to the leader and on the whole organizational performance (Kirkpatrick, 2004). Visionary leader exhibit behaviors that allow employees to attain firm's objective in particular self belief and organizational aptitudes (Randolph & Sashkin, 2002). Visionary leader helps in motivating employee's creativity by supporting employees to recognize the organizational vision (Bass, 1998). As visionary leader being the quality of innovative leader, is positively link to project employee creativity. Hence innovative leadership is also connected to project employee creativity. Innovative leader has knowledge of applying incentives level in different circumstances. Hence raises stimulus among his employee's and supporters (Mullins, 2007).

Organizations are giving quality benefits to convince their client, the confidence of employees that they have skills to produce creative end result will enhance their creativity further, and therefore improve the quality services, helping firm to retain productivity (Maroudas, Kyriakidou, & Vacharis, 2008).

H₁: Innovative Leadership is directly linked with Project Employee Creativity.

2.2 Innovative Leadership and Project Employee Creativity: Mediating Role of Creative Self Efficacy

Leaders are required into effectual firms to transform culture and business and process them productively (Agbor, 2008). Leadership approach is significant for innovation. Leadership endorses innovation as a result organization survives (Sarros, Cooper, & Santora, 2008). Leaders who are responsive, encouraging and continuously ask for the input promote the employees creativity. Moreover, project employee's creativity effects the association between leader and their employees (Mathisen, 2011). Previous studies on Project employee creativity indicate that leader's encouragement and optimistic behavior towards employees made them more creative and successful (Makri & Scandura, 2010). When leader establish organization benchmark and climate of learning, employee's tends to be more innovative and as a result employee creativity will enhance (Jaussi & Dionne, 2003). According to Amabile et al. (1996) three aspects are necessary to increase the effectiveness and development of project employees creativity such that proficiency, novel concepts and inner motivation.

Behavioral researchers mostly show concerns in association between leadership and Project employee creativity (Zhang & Bartol, 2010; Reiter-Palmon & Illies, 2004). Leadership plays a major role that can control the strength of creative self efficacy in an innovative manner (Newman et al., 2018). Leadership style improves the creative self efficacy of employees and due to that employee's tends to show more

creativity (Tierney & Farmer, 2004). Such as for instance, researchers established a definite connection among creativity and efficacy by taking a variety of data from 828 employees covering 116 groups (Liao, Liu, & Loi, 2010). Innovative leadership provides fundamental changes by generating novel ideas, procedures and approaches to work out on the problems indicated in future (Burns, 1998).

Innovative leadership develops self assurance of their employees and makes them feel that they can perform creative work as they hold self efficacy (Afsar, Badir, & Saeed, 2014). Leadership keeping innovative nature motivates the employees by focusing on their intrinsic needs and expressing sense of work (Burns, 1998). Particularly, impression of self efficacy in creative endeavor assists to take away barriers towards innovative commitment (Gist & Mitchell, 1992). Creative self efficacy mediates the association of transformational leadership and project individual innovation (Wang, Rode, Shi, Luo, & Chen, 2013; Mittal & Dhar, 2015). Employees having high creative self efficacy would results in creative result (Jaiswal & Dhar, 2016).

Creative self efficacy reflects about individual self belief to sort out the problems in a creative and different way as it's an element of innovation. Creative self efficacy extremely boosts the inner motivation of an individual's cognitive practice (Da Costa, Paez, Sanchez, Garaigordobil, & Gondim, 2015; Daemei & Safari, 2018). A group that comprised of employees having high level of creative self belief and which one's group members are more responsive is supposed to produce more creative opinions (Baer, Oldham, Jacobsohn, & Hollingshead, 2008). Creative self efficacy increases the determination degree and manages endeavors of employees (Bandura, 1977).

Creative self efficacy emulates internal motivation so that employees do creative work. It can be called influential sign of creativity. Creative self efficacy of employees is considered as a intellectual mechanism behind creativity. Project employees' creativity would be of high level when they are getting quality of support, process engagement and self determination (Abdullah, Ashraf, & Sarfraz, 2017). Creative self efficacy serves as a driving power for creative person. Organizations must

encourage both project employees creativity strongly and foster their participation towards their work and effort. Organizations make their employees to think creative that enhance their creativity (Heo & Cheon, 2013). Creativity demands individuals to be courageous and confident while working on their objectives unless they are facing problems (Shalley, Zhou, & Oldham, 2004). Thus, if employees are having strong self belief on their creative capacities and activities, this will make them to do work more successfully (Ford, 1996).

The previous research on creative self efficacy has established in what way creative self efficacy visualizes individual innovative behavior as well as performance (Gong et al., 2009). Project employee's creativity is increased by enhancing the creative self efficacy (Chang, Chen, Chuang, & Chou, 2019). Creative self efficacy is motivation that's keep u motivate to overwhelm the issues (Yuan & Woodman, 2010). Motivation is considered as a key for regulating employee's work performance (Olusola, 2011). Motivational and provocative force is important for project employee creativity during work (Amabile, Barsade, Mueller, & Staw, 2005; Zhou & Shalley, 2008).

Empirical studies have supported direct positive relationship between motivation and project employee creativity. Creative self efficacy and motivation is compulsory required for employees' innovative activities from their eagerness to identify opportunities for creativeness and to generate ideas and implement them in the organization (Amabile & Pillemer, 2012). Innovative leader being creative in nature promotes the idea generation and support employees to work with confidence. So we can say that creative self efficacy is directly related to innovative leadership and mediating the association between innovative leadership and project employee creativity.

Research show that Leader holds creative expectations from his employees and this motivation tends to increase their creative self efficacy (Tierney & Farmer, 2011). Leader's confidence in one's own abilities endorses leader support towards creativity which enhances the involvement of employee's in innovative activities and at last increases their creativity (Oreg & Berson, 2011).

Researchers takes two type of employees, one out of industrial and second one from operated section and came to the result such that creative self efficacy proves to be foundation to creative production (Tierney & Farmer, 2002). Novelty as well as uniqueness is necessary while creative behavior as it is effective for the organization domain (Oldham & Cummings, 1996). Encouragement towards innovation by their leader supports the employees to think creative and generate creative ideas. Encouragement for creativity from leader and coworkers motivate them fully to sort out way for problems. Creative self efficacy clearly educes innovation behavior. People belief that they perform just as standard of creativity will increase their creative self efficacy. Creative self efficacy behaves like mediator relating diversity among individuals and contextual aspects to employee's creative performance (Kong, Chiu, & Leung, 2018).

In organization, creative self efficacy of employee's is dominated by organizational award policy as well as management behavior, and these two factors foster the Project employee creativity (Boxall, 2003). Literature has presented two factors of creative self efficacy that influence the employee's behavior namely can' and will' (Choi, 2004).

Employees react positively towards extrinsic factors by organizing their cognitive factors like self efficacy which influences the performance of employees. This confirms that creativity is introduced by the employees themselves (Gu, He, & Liu, 2017). Employees fulfill their tasks with motivation, when they are having strong self belief that their struggle and efforts will enhance the performance. Employees who are having high creative self efficacy possess self trust in their competencies to perform creatively. Employees who are having low creative self efficacy possess low expectations that they can do creative task successfully (Malik, Butt, & Choi, 2015). Employees who have creative self efficacy raise the stimulation, cognition to encounter circumstantial demands. They focus on problem identification as well as on their creative solution, and they make superior actions to get assistance for ideas and generates paradigm. Hence they can carry out particular tasks productively and attain organizational innovation objectives (Beghetto, 2006).

Employees along with profound creative self efficacy effectively handle failure and doubts as they execute creative work (Seligman, 2000). Creative personality and creative self efficacy both remain associated with employee's creativity (Wang et al., 2013). Organization individuality as creative employees would increase if managers offer enough opportunities for innovative activities. Employees by means of strong creativity factor have high creative personality (Farmer, Tierney, & Kung-Mcintyre, 2003).

Earlier studies suggested that creative self-efficacy is equally connected with participation as well as with creativity work (Carmeli & Schaubroeck, 2007). Creative self efficacy directly influences the project employee creativity (Wang et al., 2013). Creative self efficacy behaves like a basic medium among related factors as well as with individual's innovativeness (Liu, Jiang, Shalley, Keem, & Zhou, 2016). Creative self efficacy positively persuades the innovative practice but also influence the project employee's creativity (Hong, 2004). Employees hesitate to take part in creative activities when they recognize that their efforts towards creativity will be ineffective (Ford, 1996).

Innovative leader not merely depends on precise process (for instance, recommendation scheme) and adopted open-mindedness as well as clearly express themselves by their attitude. Innovative leader appear to foster employee's better understanding of other people proficiency. Supporting employees to work together over the boundaries turns into way that leaders may increase understanding about who knows something within organization. Innovative leaders take necessary actions to improve organizational recognition in addition with personal guidance. They promote unanimous support for employees across the whole organization (Kremer et al., 2019).

Innovative leadership holds innovative culture that is associated by such factors like failure to understand leadership change and lack of dealing management ability (Simsek, Veiga, & Lubatkin, 2007). Innovative leader nurture a culture of endless change. When leaders get liable to their followers, their motivation level increases and they perform excellent in order to meet organizations targets (Maladzhi et al., 2012). Innovative leadership style is strongly and directly influenced by employee's

creative self efficacy, hence innovative leadership also supports creative self efficacy of employees (Gong et al., 2009).

Innovative leader are inspiring leaders and high gain risk takers (Maladzhi et al., 2012). Being engaged in nature is the characteristics of innovative leadership. They are having strength to push employees towards creativity (Luu, Rowley, Dinh, Qian, & Le, 2019). Hence innovative leaders are promoting employees creativity. Previous study found that leaders who hold risk taking qualities are would promote a creative environment (Maladzhi, 2015). Innovative leader provide their employees a fearless environment and give challenges. He serves as mentor for their employees and followers (Harms & Crede, 2010). Researcher suggests that innovative leader endeavor is to bring creativity among employees and foster their creativity in organization (Gilson et al., 2015).

Innovative leader promote the development of innovative opportunities for employee's (Norrgren & Schaller, 1999). They are extremely determined and in the end influence their employees (Lindegaard, 2010).

H₂: Creative Self Efficacy mediates the association between Innovative Leadership and Project Employee Creativity (PEC).

2.3 Innovative Leadership and Creative Self Efficacy: Moderating Role of Project Collaborative Culture

A working environment is at highest priority when stimulating idea creation, innovation and creativity (Doran & Ryan, 2017). A leader responsibility is to create an atmosphere and culture that supports innovation and creativity. Collaborative process used to develop an innovative culture (Ishak, 2017). Culture defines the charisma of an organization. The culture can be known by its day to day business behavior which includes shared values, faith, thought and symbol (Kumar, Banerjee, Meena, & Ganguly, 2016). Previous studies show that culture of the

organization play a dominant role in employee innovation (Cokpekin & Knudsen, 2012). Employees' learning tends to improve by creating environment of innovation (Green, 1998).

Employee's should be given full freedom to resolve their problems and given dependency to apply creative ideas to their tasks without any hurdle. By this their creativity and innovativeness will enhanced (Park & Jo, 2018). Employees generate ideas that are effective for innovation in creativity supportive environment (Dul & Ceylan, 2014). Employee's not feel opposition and is expected to speak and questions more in reliable environment which in turn provoke new create ideas and promote employee innovative performance (Yu et al., 2018).

Employees in the organization lean to show more motivation in innovative activities when they realize that the environment in which they are working provides positive climate towards innovation and their innovative behavior is supported and appreciated by organization (Baer & Frese, 2003; Kark & Carmeli, 2009). Innovation-carrying environment and employee stimulation significantly affects the creative performance of the employee (Bammens, 2016). Innovation subsists in almost all the organizations. In order to create innovative climate, organizations provide atmosphere which react to new opportunities rapidly and maintain a flexible culture (Urbancova, 2013). Employees are more interested and convinced towards the achievement of goals when they perceive better innovative atmosphere.

Leader support and innovative climate both positively affects the innovative performance of employees (Chang & Yang, 2012). Employees who are encouraged by the workplace are more productive and innovative (DiLiello & Houghton, 2006). Employees in friendly innovative organizations share assets, switch creative ideas with each other and strengthen their teamwork to attain common goals. When employee's perceive satisfied response from the team, their level of interest and motivation increases towards their job (Xie et al., 2018).

Leader and team members works together to create collaborative culture so that employees become more innovative. And they perceive a very good experience while working in this environment. Leader facilities collaborative culture for their

employees so that they remain more motivated. Leadership and creativity is helpful in innovation for the establishment of organizational culture which promotes the innovative actions (Mumford & Licuanan, 2004). Leadership stimulates the employees and team to collaborate and think right out of the box for the profitability of organization (Hoch, 2013). Collaboration can also be based on experience among employees. Perhaps, more succeeded employees collaborate more with their co-workers and recommend them for a particular collaborative culture, because they don't want to strive with their co-workers as a consequences of their outstanding work (Soda, Stea, & Pedersen, 2019).

Collaboration is specified as repeated activities whenever employees collaborate with one another for similar objective through exchange of knowledge and expertise (Dietrich, Dalcher, Eskerod, & Sandhawalia, 2010). Project collaborative culture (PCC) appeared as combined effort for structuring teamwork and assembling unity among employees (Ahmed, Shahzad, Aslam, Bajwa, & Bahoo, 2016). Project collaborative culture supports employee's variety which is critical for generating and sharing information that is basis for novel idea creation and resourceful working (Rodan & Galunic, 2004).

Project collaborative culture and innovation are generally acknowledged as fundamental antecedents of initiating competitive edge for organizations. Collaborative culture increases the capacity of organizations to become more innovative. It creates shared strength and assembles the participation of all employees towards the common objective. Organizational culture is subjected to collaborative environment, creating straight forwardness and trust which encourage employees to share more thoughts and ideas for innovation (Donate & Guadamillas, 2011; Yang et al., 2018). Earlier studies correspond that engaging employees in creative activities will increase their brainpower to think creative in the organization. Project collaborative culture can be reflected in this way that how much engaging and supportive environment they are offering to their employees by providing time and resources for generating creative work and ideas (Birdi et al., 2016).

Project collaborative culture (PCC) renovates the employee's expertise and practice into organizational knowledge by non-stop proficiency and shared knowledge

(Yang, 2007). Organizations are demanding innovative leadership for their flexibility and innovativeness and to successfully encounter the day to day business requirements (Parker & Bradley, 2000). Innovative leader opens your mind toward discovery. Innovative leader provides a framework to encourage creative approach and allowing people to make accurate choices. Innovative leadership builds confidence among employees that they can do this (Stevenson, 2012). Innovative leadership relies on innovative skills, strong shared principles and remarkable aptitude of innovative leader. The efficiency of innovative leader is also dependent on the characteristics of the employee and internal and external surroundings factors (Paul, Blanchard, & Dewey, 1997).

An innovative leader is observed as innovative minded individual seeking for the options to build a culture wherever employees turns out be more creative (Kuesten, 2008). Researcher suggests if the leadership style is innovative then it will enhance the collaborative culture (Kramer & Crespy, 2011). Project collaborative culture being innovative in nature, firms are continuously ready to learn and acknowledge that what we organizations are offering and what are market needs (Brettel & Cleven, 2011).

It promotes the creativity and innovation in the organization (Perry-smith & Shalley, 2003). Project collaborative culture apparently considered as an element of organizational culture, as it is also based on shared ethics (Meredith et al., 2017). Project collaborative culture supports cooperation, diversification, trust and acceptance (Shahzad, Bajwa, Siddiqi, Ahmid, & Raza Sultani, 2016; Mohd Noor, Hajar, & Idris, 2015). Project collaborative culture is encouraged by innovative leadership that has been observed as a supportive leadership style that stimulates innovation. Appointing right employees and engage them to fulfill goals assemble a creative team (Hynes & Mickahail, 2018).

Innovative leader improve the surroundings and orientation that ultimately build better fit among organization and climate. Innovative leader encompass the support for employees efforts (Carmeli et al., 2010). Innovative leadership style derives the behavioral aspect of leadership. An innovative leadership style tends to foster an innovative environment and a suitable mindset among members of organization

(Sattayaraksa & Boon-itt, 2016). Innovative leader established channels of communication to help collaboration and create a shared vision (Taylor, Santiago, & Hynes, 2019). Collaboration itself is direct towards innovation and creative results (DeCusatis, 2008).

Innovative leadership is about collaborative environment in which leaders and supporters work together in the creative process. Different effective strategies are used by innovative leader such as target setting and participation in order to motivate employees. In Organizations, Innovative leadership relies on creative and stimulating contributions, working in a collaborative circumstance. The leader uses communication expertise to encourage the creation of innovative synergy to generate innovative result towards organizational challenges (Mainemelis, Kark, & Epitropaki, 2015).

Project collaborative culture provides employees an enabling ambiance. It is significant towards creativity and novelty of employees in organization (Simonin, 1997). Employee innovative behavior manifests the collective effect between the environment and creative self efficacy (Chang, 2018). Employees are having higher creative self efficacy in an innovative environment thus tends to show more innovative behavior (Jaiswal & Dhar, 2015). Thus, Employee's receives more creative self efficacy in creative climate that enable them to grow and work creatively.

Creative self efficacy founded as efficient approach for increasing project employee creativity, when employees felt that their efforts are important and appreciated. Inspirational incentive and working atmosphere can else prevent or increase the effect of creative self efficacy on innovative work, if employee's take it as influential (Walumbwa, Christensen-Salem, Hsu, & Misati, 2018).

Project collaborative culture provides employees an enabling ambiance. It is significant towards creativity and novelty of employees in organization. Employee innovative behavior manifests the collective effect between the environment and creative self efficacy. Employees are having higher creative self efficacy in an innovative environment thus tends to show more innovative behavior. Thus, Employee's receives more creative self efficacy in creative climate that enable them to grow and work creatively.

H₃: Project collaborative culture strengthens the relationship between innovative leadership and CSE.

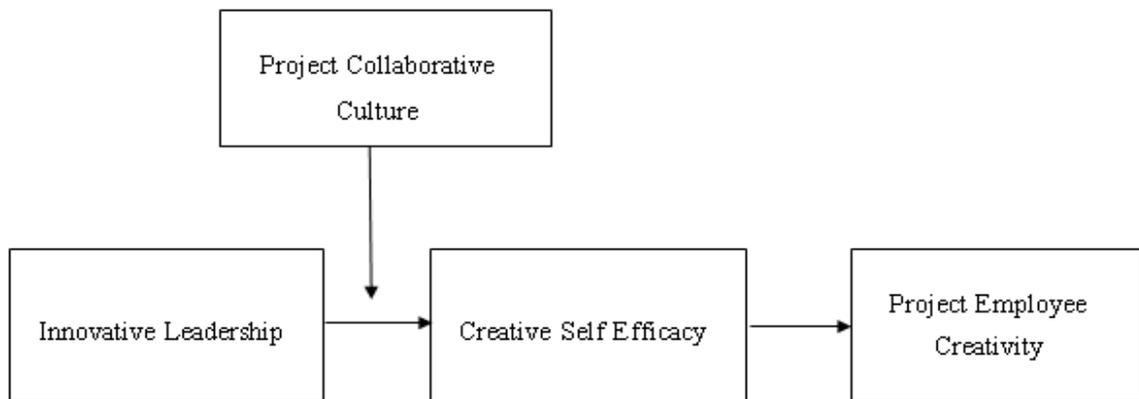


FIGURE 2.1: Research Model

2.4 Research Hypotheses

H₁: *Innovative Leadership is positively linked with project employee creativity.*

H₂: *Creative self efficacy mediates the relationship between innovative Leadership and project employee creativity.*

H₃: *Project collaborative culture strengthens the association among innovative leadership and creative self efficacy.*

Chapter 3

Research Methodology

This chapter includes all techniques and procedures comprising research design, population, sampling methods, characteristics of sampling, unit of analysis, instruments and reliability of each variables as well as items that are implemented for the purpose to get valid results.

3.1 Research Design

3.1.1 Type of Study

The current study is carried out to explain the implications of innovative leadership upon project employee creativity with mediation of creative self-efficacy and moderation of project collaborative culture. The co-relational analysis is used in order to describe the connection among variables.

Several project based organizations were focused to get valid data which leads towards required results. Primarily, about 356 questionnaires were circulated to gather data and 250 actual responses were returned out of them. The chosen sample is supposed to symbolize the whole population of Pakistan. Thus, assist to generalize the results.

3.1.2 Research Philosophy and Quantitative Research

Based upon theory of determinism, the hypothetical and logical research procedure is implemented in this study. In this procedure currently existing and past literature were used to endorse the hypothesis that is tested empirically for verifying the suggested hypothesis. Quantitative methods are used and acknowledged for a huge size of population.

To collect quality data, quantitative research has been used in this study. That will elaborate the nature of association among variables used in the research.

3.1.3 Unit and Level of Analysis

Fundamentally, unit of analysis is considered essential component of every single research. Unit of analysis includes individual's employees working in project based organizations. The study concentrates on the relationship of leaders, employee's creativity and their creative self efficacy. To study the impact of innovative leadership upon project employee creativity, it was necessary to meet the specific project based organizations that have innovative employees doing creative and novel work and affecting employees working under their control.

3.2 Population and Sample

3.2.1 Population

Population sample have been used in this study includes leaders/managers and their employees operating in multiple firms in Pakistan. Project based organizations are the major cause for the competitive advantage for Pakistan, thereby providing a massive way to bring other foreigners for investing in Pakistan, which one by one enhancing the worldwide prestige of Pakistan in a form of rising and productive country. Creativity in employees cannot be seen in project based organizations without effective leadership through creative self efficacy.

Data for current study was gathered from the Software houses based in Rawalpindi and Islamabad. These are given below:

Software Houses	Frequency
Xorlogics	40
MTBC	15
Idea Tech	30
Web Matrix	25
Elixir House	17
Dera IT Solutions	42
Stairs IT, Solutions	19
MASIA Software House	29
Eziline Software House Pvt Ltd	16
Friends IT Solution	17
Total	250

3.3 Sample and Sampling Techniques

It's understood that gathering data from overall population is difficult for the reasons of time barriers as well as resource limitation. Hence the most usually method to collect data is sampling. To save time and specific limitations, convenient sampling was used in the present study. It is the main element of non-profitability

sampling method. Convenience sampling includes random data gathering in regard to gather data efficiently. Convenience sampling is most suitable approach for gathering data randomly from project based organizations of Pakistan illustrating the influence of innovative role of leader in enhancing employee's creativity in organization with the role of creative self-efficacy.

For achieving this target, a particular group of individuals are identified that are representing the entire population truly. Commonly, project based organizations were addressed who have granted a significant value to the impact of innovative leadership roles on the employee's creativity working in multiple projects. Respondents needed for sample required to be totally indulged in their project and tasks and fostering creative ideas and singularity by the support of effective leader.

Furthermore, in a climate of project based organizations leaders as well as employees are having close communication with one another and a higher level of assistance.

As study is going to support the novel opinions in promoting the creativity of employees, so major priority should be project based organizations of Pakistan. The sample comprises of leader as well as employees of several project based organizations. Therefore, data was gathered using self-reported questionnaires in order to avoid procedure of variance. Around, 356 questionnaires were circulated in project based organizations and only 250 valid responses were returned. The participants of present study were guaranteed that their information were treated confidentially and only be utilized for research objective.

3.4 Data Collection in Three-Time Lags

In our study, 10 different software houses in Rawalpindi and Islamabad were included as population. The data were gathered in three time lags. The data were collected three times from the same group of participants. There is a probability of diversion during cross sectional study, so time lag method is utilized to prevent this (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Past study indicates that time lag between measurements has to be specific and limited as increase in time lag, more the effect is removed (Dormann & Griffin, 2015). Fundamentally, Time lag is approach in which there is pause between first and next data collection survey that is 2 weeks in our case. Thus, in two months, data gathering was done in three time lags.

Time lag 1- T1:

Independent variable Innovative leadership and moderator project collaborative culture was measured in Time lag 1.

Time lag 2- T2:

The mediator creative self efficacy was measured at Time 2.

Time lag 3-T3:

In Time 3, dependent variable Project employee creativity was measured.

3.5 Sample Characteristics

The demographics used in present research are gender, age, qualification and experience. The characteristics of the sample are following:

3.5.0.1 Age

Age is regarded as most necessary demographics. Participants not feel comfortable to tell freely. Due to that range of ages was utilized in place of accurate age of the participants.

It has been mentioned in Table 3.1 that majority of the participants were having age between the range of 18-25 which means 55.5% of maximum of populations related to 18-25 age group; despite the fact, 27.6% of participants belongs to 26-33 age group, 9.6% participants were having age between 34-41, 6.0% of participants were between to 42-49 age group, while only 1.6% employees were among 50 or above.

TABLE 3.1: Age Distribution

Age	Frequency	Percent
18-25	138	55.5
26-33	69	27.6
34-41	24	9.6
42-49	15	6.0
50 or Above	4	1.6
Total	250	100.0

3.5.0.2 Experience

Sample specificity utilized for gathering data about the experience of participants. In order to easily gather the particular tenancy of participants, different range zones employees are used working on multiple projects.

TABLE 3.2: Experience Distribution

Experience	Frequency	Percent
0-5	172	68.8
5-10	27	10.8
11-15	25	10.0
15-20	14	5.6
20-25	7	2.8
25 or Above	5	2.0
Total	250	100

It can be described from the table 3.2 that 68.8% of the participants belong to range experience of 0-5 years, which shows that most of participants were having experience between the ranges 0-5 years; 10.8% participants were having experience ranges between 5-10 years, 10% participants were having experience ranges between 11-15, 5.6% participants were having experience ranges between 15-20 years, 2.8% participants were having experience range between 20-25 years and only 2% participants were having experience ranges between 25 or above.

3.5.0.3 Gender

Gender is a particular component of demographics. It underlines the importance of gender equality as well as differentiates the level of male and female in mentioned population sample. In our study, we well tried to sustain the level of gender equality, however but it can be seen that ratio of female participants is more than the ratio of male participants.

TABLE 3.3: Gender Distribution

Gender	Frequency	Percent
Male	75	30.0
Female	175	70.0
Total	250	100

In Table 3.3, it has been shown that most of the participants were females which depicts that 70% of participants were females and 30% of the participants were males.

3.5.0.4 Qualification

Qualification is the important component which contributes towards the victory of entire nation. Therefore, after gender, qualification is significant measure of demographics. It offers novel and rare opportunities to the students in the worldwide.

Definitely, qualification is important in exhibiting creativity and innovativeness in the organizations.

TABLE 3.4: Qualification Distribution

Qualification	Frequency	Percent
Inter	13	5.2
Bachelors	131	52.4
Masters	8	3.2
MS/M.Phil.	92	36.8
PhD	6	2.4
Total	250	100

In table 3.4, it has been shown that majority of participants were from bachelors, which contains 52.4% of total participants from the whole population. 5.2% participants were having qualification of Inter, 3.2% of participants were having qualification of masters, 36.8% of participants were having qualification of MS/M.Phil and only 2.4% were from the PhD participants.

3.6 Control Variables

Demographics such as age, gender, qualification and experience were utilized as control variables as we check their impact on our dependent variable .Control variables are creative self efficacy and project employee creativity in our research. We perform one-way ANOVA on the variables to find the significance. The results shows among all variables, none is controllable ($p > 0.05$).

TABLE 3.5: Control Variables

Variables	CreativeSelf Efficacy		Project Employee Creativity	
	F Value	Sig.	F Value	Sig.
Gender	1.53	.22	2.84	0.09
Age	.812	.48	1.55	.18
Experience	.524	.758	1.69	.137
Qualification	1.64	.164	.75	.55

3.7 Instrumentation

3.7.1 Measures

The data was gathered using questionnaires picked from multiple sources. Questionnaires were circulated in each software houses and project based organizations. Questionnaires had been also distributed online for the rapid response. Based on past studies, online gathering of data is simplest and rapid source of collecting data. It was easy for participants to fill online instead of filling it manually. There is no impact on the nature of the data while using any one of the approach mentioned above (Church, Elliot, & Gable, 2001).

Each item of the study Innovative leadership (IL), creative self efficacy (CSE), project employee creativity (PEC) and project collaborative culture (PCC) was filled by the individuals. All items within the questionnaires are filled on the basis of 5 points Likert-scale where 1 corresponds strongly disagree, 2 corresponds Disagree, 3 corresponds Neutral, 4 corresponds Agree and 5 corresponds strongly agree. All of these scales were certified by passing them using reliability test.

The questionnaires consists of 26 questions having 5 portions namely demographics, IL, CSE, PEC and PCC. Demographics contain the variables gender, age,

qualification and experience. The participants of present study were guaranteed that their information were treated confidentially and only be utilized for research objective. 356 questionnaires were circulated for data analysis and only 270 valid responses were returned. But genuine numbers of questionnaires utilized for describing the results were 250. The dismissed questionnaires from 270 were not having correct information and several of the questionnaires were unfilled making the study not applicable.

So we had a total response of 71%.

3.7.1.1 Innovative Leadership

Innovative leadership is assessed by 6 item scale developed by (Van de Ven & Chu, 1989). Participants showed the strength of acceptance to these testimonies on a 5 point Likert scale, where 1 correspond “strongly disagree” and 5 corresponds “strongly agree”. The sample items include “The leader emphasizes teamwork”, “the leader clarifies individual responsibilities”, “the leader provides clear feedback to the employees”.

3.7.1.2 Creative Self Efficacy

Creative self efficacy is evaluated by 13 item scale. This scale was adopted from Yang and Cheng (2009). Participants showed the strength of acceptance to these testimonies on a 5 point Likert scale, where 1 correspond “strongly disagree” and 5 corresponds “strongly agree”. The sample items contains “The belief that I would suggest new ways to achieve goals or objectives”, “The belief that I would come up with new and practical ideas to improve performance”.

3.7.1.3 Project Employee Creativity

A four item scale of the employee creativity developed and utilized by Tierney, Farmer, and Graen (1999). Participants showed the strength of acceptance to these testimonies on a 5 point Likert scale, where 1 correspond “strongly disagree” and

5 corresponds “strongly agree”. The sample item include “Demonstrate originality at my work”, Try out new ideas and approached to problems”, “Identify opportunities for new products/ process”.

3.7.1.4 Project Collaborative Culture

To measure collaborative culture, we adopted 3 items scale. This was adopted by [Hurley and Hult \(1998\)](#). Participants showed the strength of acceptance to these testimonies on a 5 point Likert scale, where 1 correspond “strongly disagree” and 5 corresponds “strongly agree”. The sample item contains “People in the project team were supportive and helpful”, “There was willingness to share responsibility for failure”, “There was willingness to collaborate across different groups”.

TABLE 3.6: Instruments.

No	Variable	Source	Items
1	Innovative Leadership	(Van de Ven & Chu, 1989)	6
2	Creative Self Efficacy	(Yang & Cheng, 2009)	13
3	Project Employee Creativity	(Tierney et al., 1999)	4
4	Project Collaborative Culture	(Hurley & Hult, 1998)	3

3.8 Statistical Tool

The relationship between Innovative leadership which is independent variable and Project employee creativity which is dependent variable was checked by linear regression. Regression analysis is carried out in our study to check the effect of different factors on our dependent variable. Past studies on regression analysis give sureness that variables are still endorsing the acceptance and rejection of suggested hypothesis or not.

Moreover, [Preacher and Hayes \(2004\)](#) methods were utilized for analyzing mediation and moderation. It includes different models and possibilities for mediation and moderation analysis. In order to seek mediation analysis model 4 is used and for moderation analysis model 1 is utilized. Both moderation and mediation analysis by [Preacher and Hayes \(2004\)](#) includes three steps. In the first phase, the dependent variable is placed in outcome column that is project employee performance and Independent variable that is Innovative leadership is placed in IV column. At the end, put all the demographics in covariant columns.

IBM AMOS has been used for investigating measurement model. Statistics involved multiple indices like RMESA, CFI, GFI and TLI.

3.8.1 Measurement Model

To study model of measurement Confirmatory factor analysis (CFA) is utilized composed of four latent variables: innovative leadership, creative self efficacy, project employee creativity and project collaborative culture. The mixture of different fit index number is utilized to estimate the model fit. Model contains chi-square model, approximate root means square error approximation (RMSEA), Comparative fit index (CFI), Tucker-Lewis index (TLI) and Goodness of fit index (GFI). The measurement model presented matchless fit across different models. A satisfactory authenticity is presented by CFA results for four factor model.

TABLE 3.7: CFA for Complete Model

	χ^2	Df	CMIN	GFI	TLI	CFI	RMSEA
Initial Model	553.739	370	1.497	0.869	0.884	0.894	0.45
Modified Model	385.345	331	1.164	0.908	0.962	0.97	0.026

* $P > 0$

It is shown in table [3.7](#) that value of GFI is 0.908 which is greater than 0.90 that means good fit to the data. The value of TLI is 0.962 and CFI is 0.97 those are

more than 0.92 and the value of RMSEA is found to be 0.026 which is less than 0.05. It informs model good and validity is confirmed.

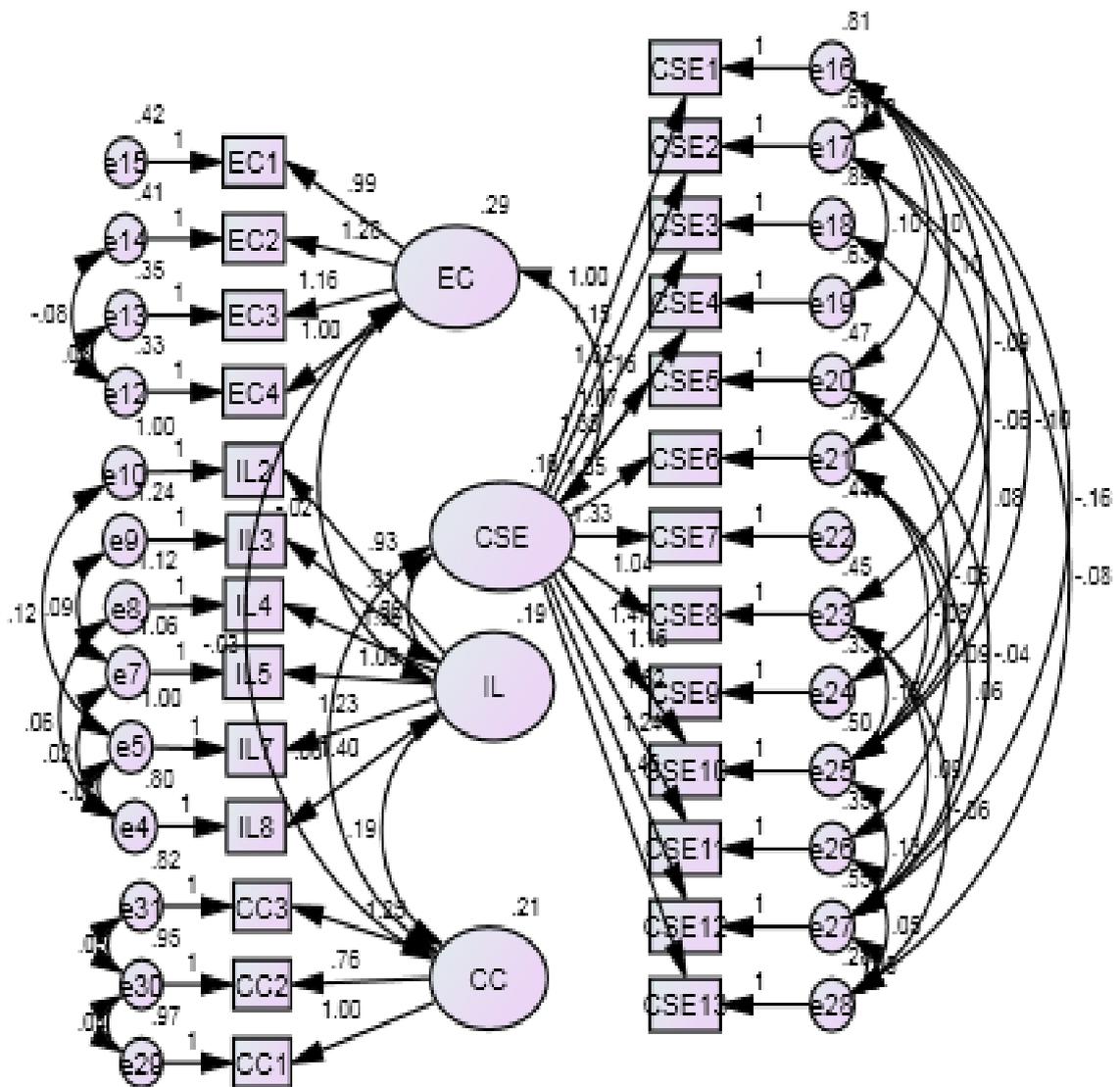


FIGURE 3.1: CFA for Complete Model

3.9 Reliability Analysis of Scales Used

Reliability analysis is a method of providing repeated results again and again when particular item or scale is tested frequently. Reliability of scale describe that when it is tested several times, it provides constant results repeatedly. Reliability is tested using Cronbach alpha in this study which depicts the reliability

of single construct and variable's internal reliability and the association among those variables. The range of Cronbach alpha is between 0 to 1. The lowest value shows smaller reliability and largest value shows the higher reliability. Although, measuring selected set of construct Cronbach alpha more than 0.7 is assumed as highly reliable and less than 0.7 is assumed as least reliable in present research.

TABLE 3.8: Scale Reliabilities

Variables	Cronbach's Alpha	Items
Innovative Leadership	0.73	6
Creative Self Efficacy	0.82	13
Project Collaborative Culture	0.84	3
Project Employee Creativity	0.77	4

Table 3.8 depicts Cronbach alpha values of all the variables. In our study, all the variables are having value greater than 0.7. The items i.e creative self-efficacy and project employee creativity have higher values which mean they are all highly reliable to be used in the context of Pakistan.

3.10 Data Analysis Techniques

After ending of data collection process from 250 participants, the data was examined on SPSS. The steps involved in analyzing the data for the present study was given below:

1. Firstly, each questionnaire that was filled properly was selected for the analysis.
2. All variables of the questionnaires were specified with a particular code and then utilized for data analysis.
3. To describe the sample characteristics, frequencies were calculated.

4. Descriptive statistics were added.
5. Cronbach coefficient alpha were utilized for examine reliability of all the variables.
6. Confirmatory factor analysis (CFA) used to check the model fitness.
7. Correlation analysis was used with regard to check whether there is a considerable association between the variables or not in the study.
8. To examine the proposed association between dependent and independent variable, single linear regression is implemented.
9. Preacher and Hayes method were utilized for examine mediation between independent and dependent variable.
10. And also used to examine the moderation between independent and mediating variable.

Chapter 4

Results

This chapter covers results regarding descriptive statistics (Mean and Standard deviation), Correlation analysis, regression analysis in accordance with mediation and moderation analysis. Analysis results describe whether the hypothesis of research are accepted or rejected. Statistical package for social sciences (SPSS) is utilized in regard to run analysis. Analysis of moment structures (AMOS) is utilized for Confirmatory analysis of latent variables that are additional manual of SPSS.

4.1 Descriptive Statistics

Descriptive statistics indicates the important points of information about the variables used in this research i.e. Innovative Leadership, Creative Self Efficacy, Project Employee Creativity and Project Collaborative Culture. Descriptive statistics is the summarized information of complete data. These statistics includes total number of respondents, minimum and maximum value of every variable, mean and standard deviation of each variable. Averages of responses are described by Mean value and a standard deviation value demonstrates the change of responses from their means.

TABLE 4.1: Descriptive Statistics

	N	Minimum Value	Maximum Value	Mean	Standard Deviation
Innovative Leadership	250	1	5	3.76	0.51
Project Employee Creativity	250	1	5	4.04	0.66
Creative Self Efficacy	250	1	5	3.83	0.76
Project Collaborative Culture	250	1	5	3.380	0.81

In Table 4.1 Information regarding each variable is described in separate columns. Like in first column there are variables and next five columns explains the detail of data against each variable.

Table 4.1 depicts that the sample size was 250 for each of four variables. Every variable was rated using the five Likert scales in which 1 represents strongly disagree and 5 represent strongly agree. Values of Mean and standard deviation explain the crux of responses. Basically this is the observation of respondents about each particular variable. The mean value of Innovative leadership is 3.76 and its standard deviation value is 0.51. The mean value of Project Employee Creativity is 4.04 whereas the standard deviation value is 0.66. Mean value for Creative Self Efficacy is 3.83 & its standard deviation value is 0.76 to be very exact. Now coming to the last variable i.e. Project Collaborative Culture, its mean and standard deviation values are 3.380 and 0.81 respectively.

4.2 Correlation Analysis

Usually analysis of correlation is implemented to interpret the association among variables. The objective to carry out the process of correlation analysis in present research was to find out the association among innovative leadership and project

employee creativity, creative self efficacy role as mediator and moderation of project collaborative culture to authenticate the suggested hypothesis. Correlation analysis is conducted to explain the variation level among two variables and different from regression analysis as it does not describe the association among two or more than two variables.

Pearson correlation analysis is another name of correlation analysis which demonstrate the nature and resilience of the relationship ranging between -0.1 to 0.1 known as Pearson correlation range. Figure of magnitude may summarize through distance of correlation from zero that identify the association among two variables. The association is stronger between the variables if the correlation is far away from zero and association is weaker if the correlation is nearer to zero. There exists no association among variables if values are zero.

The nature of association between variables is signified by negative or positive sign; here positive sign reveals that association is direct, increase in one variable increases the second one. Negative sign reveals that association is indirect, increase in one variable decrease the second variable.

The correlation between the variables of the research are given down in the table, demonstrating the nature of association.

TABLE 4.2: Correlation

S.No	Variables	1	2	3	4
1	Innovative Leadership	1			
2	Project Employee Creativity	.458**	1		
3	Creative Self efficacy	.245**	.240**	1	
4	Project Collaborative Culture	.155**	.091	.295**	1

* $P < 0.05$, ** $p < 0.01$, *** $p < .001$ N=250 **Correlation is significant at the level 0.01(2-tailed)

Correlation table 4.2 represents a significant positive association between innovative leadership and project employee creativity when $r=.458^{**}$ at $p < 0.01$. Furthermore, innovative leadership holds a favorable significant association with creative self efficacy when $r=.245^{**}$ at $p < 0.01$. Moreover, innovative leadership holds a definite significant association with project collaborative culture when $r=.155^{**}$ at $p < 0.01$. Likewise, creative self efficacy holds a definite significant association with project employee creativity when $r= .240^{**}$ at $p < 0.01$. There is a definite significant association between project collaborative culture and creative self efficacy where $r=.091$ at $p < 0.01$. The positive and considerable association takes place between project collaborative culture and project employee creativity when $r=.295^{**}$ at $p < 0.01$.

4.3 Regression Analysis

Previously, correlation analysis has carried out to monitor the existence of association between the variables utilized in study. But we simply cannot depend only on correlation analysis. Regression analysis is utilized in order to determine dependency of one variable upon the other variable. It explains how much one variable is dependent on other variable.

In order to analyze mediation and moderation, PROCESS macro by Hayes of regression analysis been utilized into present research. Mediation analysis used to be conducted in order to observe mediating role of creative self efficacy between innovative leadership and project employee creativity by utilizing model 4. Whereas, model 1 is applied to check moderation of project collaborative culture between innovative leadership and creative self efficacy.

Table 4.3 clearly showed the direct link of each variable with one another. Innovative leadership has a positive relation with project employee creativity. Thus, H_1 : Innovative leadership is directly linked to project employee creativity is accepted ($\beta =.592$, $t=8.11$, $p= .00$). Innovative leadership is considerably linked with creative self efficacy ($\beta =.366$, $t=3.97$, $p= .00$). Creative self efficacy is positively linked to project employee creativity ($\beta =.117$, $t= 2.35$, $p= .001$).

TABLE 4.3: Direct Effects

		β	se	t	p
Innovative Leadership	→ Project Employee Creativity	.592	.073	8.11	.00
Innovative Leadership	→ Creative Self Efficacy	.366	.092	3.97	.00
Creative Self Efficacy	→ Project Employee Creativity	.117	.049	2.35	.001

Note. Un-standardized regression coefficient indicated. $N=250$, * $P < .05$; ** $P < .01$

In this study, X denotes the independent variable i.e. Innovative Leadership and Y represents the dependent variable i.e. Project Employee Creativity. Path 'c' represents the direct link of independent and dependent variable.

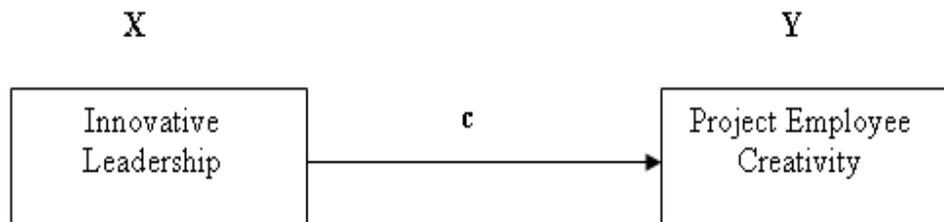


FIGURE 4.1: Direct Link

4.3.1 Mediation Analysis

We utilized model 4 of PROCESS macro by Hayes through SPSS to test the mediation of Hypothesis 2. The links between Independent variable to Mediator and mediator to dependent variable must be significant to prove mediation. There lies no mediation if any of the links is not significant. Creative self efficacy acts as mediator (M) between innovative leadership (IV) and project employee creativity (DV).

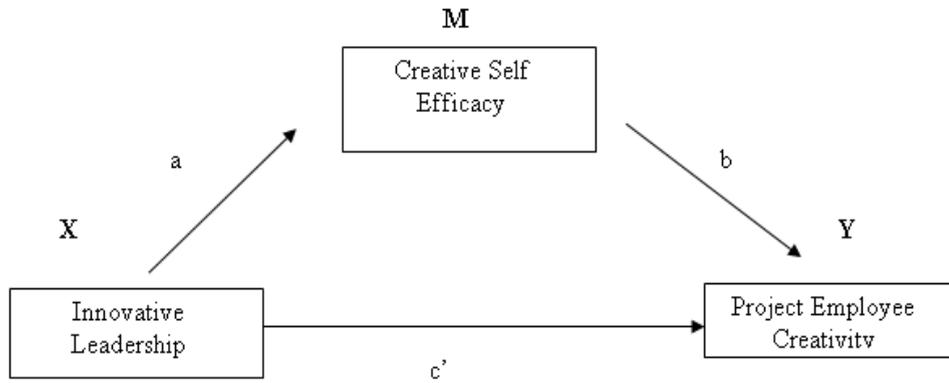


FIGURE 4.2: Mediation Analysis

TABLE 4.4: Mediation Analysis

IV	Effect of IV on M (a path)	Effect of M on DV (b path)	Direct Effect of IV on DV (c' path)	Total Effect of IV on DV (c path)	Bootstrapping Results for Indirect Effect	Results of Effect
	β	β	β	β	LL95%CI	UL95%CI
Innovative Leadership	.366	.117	.549	.592	.0024	.1260

Note. Un-standardized regression coefficient indicated. Bootstrap sample size 5000. LL =lower limit; CI = confidence interval; UL = upper limit. N=250, *P < .05; **P < .01

Explanation of each path is following:

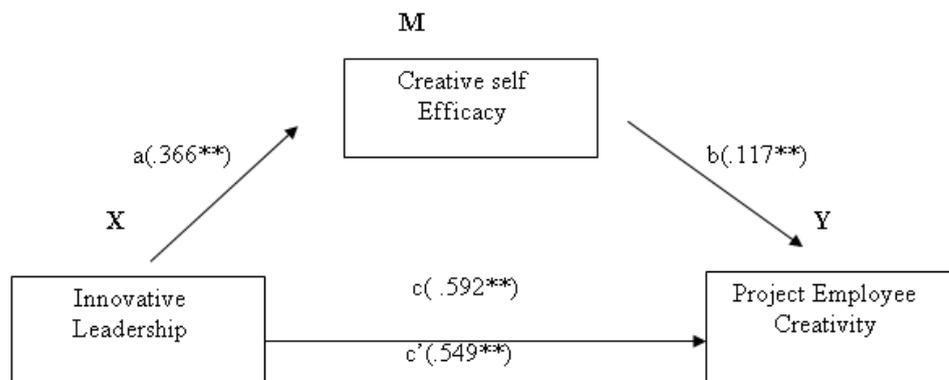


FIGURE 4.3: Mediation Analysis with Coefficients

4.3.2 Total Effect

Total effect explains the relation of IV and DV which in our context is Innovative leadership and Project employee creativity. Total effect of Innovative leadership on project employee creativity is 0.592 with the significance of .00.

It demonstrates that 59% of variance takes place in project employee creativity due to innovative leadership. The lower limit of bootstrap is 0.44 and upper limit is 0.73, which indicates no zero between limits. Therefore, hypothesis H1 is accepted that innovative leadership is positively linked with project employee creativity.

4.3.3 Direct Effect

Direct effect indicates the effect of IV on DV in the presence of mediator. In our case, it shows the impact of innovative leadership on project employee creativity in the presence of creative self efficacy. Results suggest the direct effect of 0.549 with the significant p value of 0.00.

It indicates that innovative leadership shows 54% variation of project employee creativity in the existence of creative self efficacy. The lower limit of bootstrap is 0.40 and upper limit is 0.69, which indicates no zero between limits showing results are significant.

4.3.4 Indirect Effect

In the present study, hypothesis 2 indicates that the relationship between innovative leadership and project employee creativity is mediated by creative self efficacy. Table 4.4 shows indirect consequences of innovative leadership upon project employee creativity through creative self efficacy has upper limit 0.1260 and lower limit 0.0024 definitely describing that bootstrapped 95% confidence interval does not hold zero in it. The Results of un-standardized regression coefficient is giving strong defense for the acceptance of hypothesis. Thus, H2: creative self efficacy mediates the association between innovative leadership and Project Employee creativity.

4.3.5 Moderation Analysis

TABLE 4.5: The Moderating effect of Project Collaborative Culture

		β	<i>se</i>	<i>t</i>	<i>p</i>
IL*PCC	→ Creative Self Efficacy	.346	.0866	4.002	.0001
		LL 95% CI		UL 95% CI	
Bootstrap results for indirect effect		.1760		.5171	

Note. Un-standardized regression coefficient indicated. Bootstrap sample size 5000. LL = lower limit; CI = confidence interval; UL = upper limit. $N=250$, * $P < .05$; ** $P < .01$

Table 4.5 illustrates that project collaborative culture is behaving as a moderator among innovative leadership and project employee creativity as can be seen by un-standardized regression analysis ($\beta = .346$, $t = 4.002$, $p = .0001$). Upper limit value .5171 and lower limit value .1760 does not specifying the existence of zero in bootstrapped 95% of confidence interval. As a result H_3 : project collaborative culture moderates the relationship between innovative leadership and creative self efficacy is accepted. In such a way when project collaborative culture is high it will strengthens the association of innovative leadership and creative self efficacy.

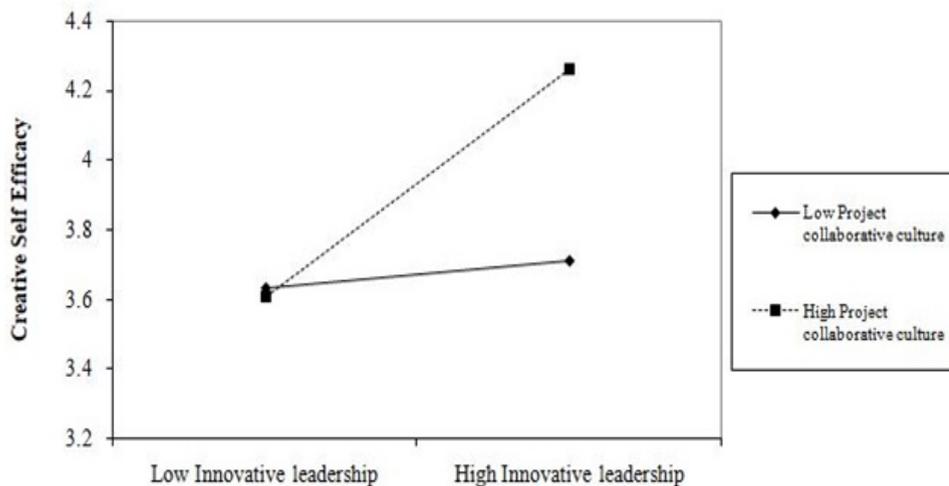


FIGURE 4.4: Moderation Graph

4.4 Summary of Accepted/ Rejected Hypothesis

TABLE 4.6: Summary about Accepted/ Rejected hypothesis

Hypothesis	Statements	Results
H_1	Innovative Leadership is positively linked with Project employee creativity	Accepted
H_2	Creative self efficacy mediates the association between innovative Leadership and Project Employee Creativity	Accepted
H_3	Project collaborative culture moderates the association between innovative leadership and creative self efficacy.	Accepted

The summarized results depicts that hypothesis 1, hypothesis 2 and hypothesis 3 are accepted with the help of established results. The findings of result from analysis are real and precise in accordance with data analysis. These results describe the acceptance of hypothesis in the context of Pakistan. So we come to the conclusion based on our results that innovative leadership is positively linked to project employee creativity, Creative self efficacy mediates the relationship of innovative leadership and project employee creativity and Project collaborative culture role as a moderator is found to be significant between innovative leadership and creative self efficacy as strengthening their relationship.

Chapter 5

Discussion and Conclusion

5.1 Discussion

This chapter includes discussions of important findings towards the support of proposed model of the research. Research questions are imparted and examined with corresponding hypothesis, and we identified a proper assistance for our hypothesis. This discussion pursued by practical and theoretical implications, limitations and inclusive suggestions about innovative leader and in the end, ideas for future researches.

The central importance of current research was to look into the association among innovative leadership and project employee creativity within project based organization. Research study addressed creative self-efficacy role as mediator among innovative leadership and project employee creativity as well; and moderating role of project collaborative culture among innovative leadership and creative self-efficacy. Whole research was carried out in the domain of project based organizations to foster the project employee creativity through innovative leadership.

The results of research study describes that innovative leadership has successive impact on project employee creativity which implies that ability of leader to promote innovative ideas increases employees creativeness. There lies a considerable association between innovative leader and creative self-efficacy, which moreover has an absolute association over project employee creativity. Hence, H_1 and H_2

are accepted developing an association among innovative leadership and project employee creativity under the creative self-efficacy role as a mediator. This demonstrates innovative leadership promotes the creative self-efficacy of employees engaged in projects which in turn enhances the project employee creativity.

However, project collaborative culture has been found with moderating role, as it strengthens the association of innovative leadership with creative self-efficacy. It is designated as significant moderator of model because association on behalf of innovative leadership and creative self-efficacy does vary during the presence of moderator. So Hypothesis 3 of our research is also accepted.

The detailed discussion on each hypothesis is given below:

5.1.1 Hypothesis H_1 : Innovative Leadership is positively linked with Project Employee Creativity

Hypothesis H_1 expressed that innovative leadership is positively significant towards the association with project employee creativity anticipating the existence of significant and positive association among innovative leadership and project employee creativity. The coefficient value .592 showing that one unit change in innovative leadership will bring 59% change in association among innovative leadership and project employee creativity, as a result it strengthen the association. Whereas, $t = 8.11$ depicting a significant positive association among innovative leadership and project employee creativity for $t > 2$ shows statistical significance.

Sufficient literature is present to support the above mentioned accepted hypothesis of the study. Previous studies indicate that innovative leaders are drivers for change (Rogers, 1995). Innovative leaders promote the association among team members and create a supportive and thought-provoking environment for his employees which foster employee's creativity. Innovative leader participation and provision put a positive impact on the employee's creativity within organizations. Innovative leadership is transformational in nature which galvanizes the employees to generate creative work and think innovatively. Innovative leader plays a visionary role for their employees.

Leaders are creative in nature which is essential for effective leadership that is connected with employee's creativity (Koseoglu et al., 2017). Literature purports that innovative leader with his creative planning practice are inevitable, just as he outlines the favorable outcomes towards the creative initiatives made by the employees in the organization (Mantzaris, 2016). Innovative leaders tend to intensify idea creation and implement employee's recommendations within organization which leads towards the project employee creativity.

Instinctual motivation delivered by innovative leader play a leading role in putting a positive influence on project employee creativity. Employees work more innovatively under the leadership of innovative leader; he supports the transformation and innovation. Innovative leader push employees in the direction of creative plan actions and strengthen their confidence level by stimulating them thereby increased project employee creativity.

5.1.2 Hypothesis H_2 : Creative Self Efficacy mediates the relationship between Innovative Leadership and Project Employee Creativity

Hypothesis H_2 expressed creative self-efficacy role as mediator among the relation of innovative leadership and project employee creativity. It is demonstrated with the help of results that indirect consequences of innovative leadership over project employee creativity through creative self-efficacy has upper limit of .0024 and lower limit of .1260 depicting that it has no zero in bootstrapped 95% confidence interval. Thus, illustrating hypothesis is accepted creative self-efficacy is mediating among innovative leadership and project employee creativity.

Literature has also endorsed the above mentioned hypothesis results in matter of considerable association among them. Creative self-efficacy is remarked as factor of innovation which mediates the personal confidence in order to resolve issues creatively. It excessively increases the intrinsic motivation of an employee (Daemei & Safari, 2018). The act of leader to be innovative is very important and its creativity played a significance role towards project employee's creativity. Hence

the leading organizations support and encourage their employee's which helps to boost their creative self-efficacy and end results. The leader strengthens his workers and employees and this made them more creative, as a result project objective is achieved by more innovative thoughts.

Creation of innovative ideas and suggestions depends on the creative self-efficacy of employees. It impacts directly on the project employee's creativity (Richter, Hirst, Van Knippenberg, & Baer, 2012). Innovative leader influences his employees to produce creative ideas and make a great effort to enhance their creative self-efficacy in favor of innovation. Motivation level in employees gets increased when the leader is innovative who builds their self-confidence. Creative self-efficacy is employee aptitude to innovate and to develop creative end results. Creative self-efficacy is directly related to innovation of an organization and motivation. Innovative leadership motivates his employees that results take the form of high creative self-efficacy of employees. It is dependent on employee self-belief for handling challenges in an innovative manner.

Hypothesis 2 of study was demonstrating creative self-efficacy is mediating relationship between innovative leadership and project employee creativity; results of research have endorsed the second hypothesis. We came to conclusion after the approval of hypothesis that innovative leader as expected tends to encourage his employees that increases their creativity. Innovative leadership is predecessor for the creative self-efficacy within project based organizations. In other terms, acceptance of second hypothesis emphasized the presence of observable fact belonging to our research question therefore verifies that innovative leadership seeks to motivate the employees to generate novel work in organization, increased profitability and innovativeness in the firm.

5.1.3 Hypothesis H_3 : Project Collaborative Culture moderates the relationship between Innovative Leadership and Creative Self Efficacy

Hypothesis H_3 expressed that project collaborative culture moderates the relationship of innovative leadership and creative self efficacy. And the results provide proper support for the acceptance of hypothesis ($\beta = .346$, $t = 4.002$, $p = .0001$) which indicates that the value of t explains the statistically significant relationship as $t = 4.002$ which is greater than 2 ($t > 2$). Upper limit value .5171 and lower limit value .1760 specifying the existence of zero in bootstrapped 95% of confidence interval. Therefore, when project collaborative culture is higher (supportive) it will strengthen the association between innovative leadership and creative self-efficacy.

Literature also endorsed the above mentioned hypothesis results in matter of considerable moderation between innovative leadership and creative self efficacy. Previous studies suggest project collaborative culture foster and support participation of all members (Bstieler & Hemmert, 2010). Culture play a dominant role in any study, as it is considered as substantial part of organization. The researcher's first identified a relationship between working culture and leadership (Kozlowski & Doherty, 1989).

Past studies claimed that if there is lack of support or less favorable culture in project based organizations then it leads towards the less successful outcomes as compared to strong favorable cultures in attaining appropriate results (Khalili, 2016). It is well founded concept that leadership is also essential for specific culture. Simultaneously, consequences of leadership are not bounded between the relationship of leader and employee (Schein, 1992). Researchers highlight that understanding between leaders and surrounding workers is a massive challenge relative to culture (Kerzner, 2017).

Project collaborative culture is considered as an important factor in organizations for their competitive capacity. In any organization, employees in different teams come from different cultures and supported by innovative leader. They are encouraged to participate in activities and get appreciated. Project collaborative culture

facilitates the employees to participate completely in assignments and share their knowledge with other employees.

Innovative leadership supports project collaborative culture in which leader and employees work creatively. When employees perceives supportive and sharing environment from their workplace and get to know that their efforts are appreciated than they tends to show more creativity in their work. With the help of project collaborative culture, employee's skills and shared knowledge is improved. Innovative style of leadership supports the project collaborative culture in organizations because it motivates the employee's to achieve their targets innovatively.

Project collaborative culture is provided by innovative leader in organizations who uses different productive ideas and approaches to develop the interest of employees to perform in an innovative manner. Employees have a chance to enhance their creative self efficacy in collaborative environment.

5.2 Research Implications

Our study includes theoretical as well as practical implications with regard to project based organizations.

5.2.1 Theoretical Implications

Our study includes theoretical as well as practical implications with regard to project based organizations as previous studies haven't investigated the impact of innovative leadership on project employee creativity especially in Pakistan context. Our results signify that role of innovative leader helps to improve creativity of employees in organizations. Creativity is considered as well-known requirement of this era; this study described new vision to achieve project employee creativity in projects with the involvement of innovative leader. Theoretically, role of creative self efficacy as a mediator between innovative leadership and project employee creativity is not recognized in the literature before. The results of the study

confirmed that innovative leadership boost the creative self efficacy of employee that leads to increases the project employee creativity.

So, a significant relationship has been confirmed between innovative leadership and project employee creativity under creative self efficacy role as a mediator. As innovative leadership and creative self efficacy are essential for the domain of project management, so it comes out a distinctive research which has contributed in the literature.

5.2.2 Practical Implications

Past studies have added literature on innovative leadership but with creative self efficacy role as mediator has not highlighted. Research introduces creative self efficacy role as mediator exposed as potential impact of innovative leadership which as a result increases the employee creativity. Results about research certified innovative leadership is connected closely to creative self-efficacy and foster it, which thereby positively enhances the project employee creativity. Moreover, project collaborative culture that is core and rare variable moderate the relationship between innovative leadership and creative self efficacy. This illustrates that collaborative culture is significant in organizations in context of Pakistan because employees, managers and team members are positively affected in the presence of collaborative culture.

This research is important in same manner for managers, employees, supervisors and leaders, since Pakistan is experiencing many challenges associated with innovation and creativity which demands new researches to resolve these proportions of Pakistani culture that describe the notion of innovative leadership, employees and supervisors for the purpose to foster the association among leader and employees by utilizing efficient communication modes and methods to implicate creativity and innovation in projects by the involvement of leader which is effective requirement of this century.

5.3 Limitations of Research

This study also has some limitations likewise every research, which elicits firstly particularly owing to insufficient time and resources. The data were gathered from different software houses based in one city of Pakistan. So in the future, researchers used to collect data from software houses based in different cities of Pakistan. Only one mediator and moderator were analyzed owing to shortage of time. Therefore, future research can refine the model and also test other mediators as well. The method use for collecting data was convenience sampling also referred as limitation in study because it not depicts the real population. The results might be different if gathered from actual size of population. We gathered data only from employees was another limitation because there is probability of having different result when we take suggestions from leader. Further, employees are least interested to deliver data. Persuading employees was a difficult target though.

5.4 Future Research Directions

Research model is analyzed in current study for examine the impact of innovative leadership on project employee creativity with regards to projects. In future, innovative leadership could be studied with different variables like emotional intelligence ([Zhou, 2003](#)), organizational unit's innovativeness ambience ([Hulsheger et al., 2009](#)) and scores upon big five personality attributes ([Bono & Judge, 2004](#)) to enhance the organizations profitability and success. Moreover, the relationship between innovative leadership and project employee creativity can be studied with some other mediating variables. Changing the moderator between the relationship of innovative leadership and creative self efficacy can also be the point of focus for future studies.

The current study has been done with the focus on software houses only, researchers observe and replicate the model in Public sector other than project based organizations in order to study the impact with a large sample size. This Innovative style of Leadership implemented in culture of Pakistan, others studies

should be conducted in order to discuss this Innovative leadership in other culture. The results and significance of the study will be useful for the future researchers who are highlighting this area to relate innovative leadership to other variables. Besides, the sample size may also be increased as this research is limited to easily available sample.

5.5 Conclusion

The present research makes an effort to investigate the association among innovative leadership and project employee creativity in project based organizations. A questionnaire study was conducted for data gathering focused to examine the role of innovative leadership on project employee creativity with creative self-efficacy role as mediator and project collaborative culture role as moderator among the association of innovative leadership and creative self-efficacy within project based organizations. Almost 356 questionnaires were distributed to analyze the relation among suggested variables but 250 questionnaires were utilized for the study having correct and actual information. The current study and suggested hypothesis were supported by social exchange theory epitomizes the direct relation among innovative leadership and project employees creativity. There are three hypotheses in this study which are tested and evaluated within context of Pakistan. Hypothesis H_1 and H_2 are accepted, implying creative self-efficacy role as mediator among innovative leadership and project employee creativity. H_3 is accepted in accordance with context of Pakistan with support of results. So, it is founded that moderation of project collaborative culture is significant. It moderates the relationship of innovative leadership and creative self-efficacy in such a way that it strengthening their relationship.

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Appendix

Survey Questionnaire

Dear Respondent,

I am a student of MS Project Management at Capital University of Science and Technology, Islamabad and this research is a part of completion of my degree program. It is hereby conducted on the “Impact of Innovative Leadership on Project Employee Creativity”. Kindly fill in the below questionnaire. Your responses will remain confidential and will only be used for academic purpose. Your name will not be mentioned anywhere on the document, so kindly give an unbiased opinion to make research successful. Thank you for your help and support.

Regards,

Tayyaba Saleem

Faculty of Management and Social Sciences

Capital University of Science & Technology (CUST), Islamabad.

Section 1

Demographics

	1	2					
Gender	Male	Female					
	1	2	3	4	5		
Age	18-25	26-33	34-41	42-49	50 or Above		
	1	2	3	4	5	6	7
Qualification	Matric	Inter	Bachelors	Masters	MS/M.Phil	PhD	Post PhD
	1	2	3	4	5	6	
Experience	0-5	5-10	11-15	15-20	20-25	25 or Above	

Section 2

The following statements describe your leader leading style that is **Innovative leadership**. How much you are agreeing or disagree with these statements. Report on this scale.

1= Strongly Disagree 2= Disagree 3= Neither Agree/nor Disagree 4= Agree 5= Strongly Agree

1	The Leader emphasizes teamwork.	1	2	3	4	5
2	The Leader clarifies individual responsibility.	1	2	3	4	5
3	The Leader provides clear feedback to the employees.	1	2	3	4	5
4	The Leader emphasizes task orientation.	1	2	3	4	5
5	The Leader encourages initiatives.	1	2	3	4	5
6	The Leader trusts the employees.	1	2	3	4	5

Section 3

The following statements concern with your **Project Employee Creativity**. How much you are agreeing or disagree with these statements. Report on this scale.

1= Strongly Disagree 2= Disagree 3= Neither Agree/Nor Disagree 4= Agree 5= Strongly Agree

1	Demonstrate originality at my work	1	2	3	4	5
2	Try out new ideas and approached to problems	1	2	3	4	5
3	Identify opportunities for new products processes	1	2	3	4	5
4	Generate novel but operable work-related ideas	1	2	3	4	5

Section 4

The following statements relate to your opinion about **Project Collaborative Culture**. How much you are agreeing or disagree with these statements. Report on this scale.

1= Strongly Disagree 2= Disagree 3= Neither Agree/Nor Disagree 4= Agree 5= Strongly Agree

1	People in the project team were supportive and helpful	1	2	3	4	5
2	There was willingness to share responsibility for failure	1	2	3	4	5
3	There was willingness to collaborate across different groups	1	2	3	4	5

Section 5

The following statements concern with your behaviour under **Creative self efficacy**. How much you are agreeing or disagree with these statements. Report on this scale.

1= Strongly Disagree 2= Disagree 3= Neither Agree/Nor Disagree 4= Agree 5= Strongly Agree

1	The belief that I would suggest new ways to achieve goal or objectives.	1	2	3	4	5
2	The belief that I would come up with new and practical ideas to improve Performance.	1	2	3	4	5
3	The belief that I could search out new technologies, processes, techniques, and/or product ideas	1	2	3	4	5
4	The belief that I would suggest new new ways to increase quality.	1	2	3	4	5
5	The belief that I would be a good source of creative ideas.	1	2	3	4	5
6	The belief that I would be not afraid to take risks.	1	2	3	4	5
7	The belief that I would promote and champion ideas to others.	1	2	3	4	5
8	The belief that I would exhibit creativity on the job when given the Opportunity to.	1	2	3	4	5
9	The belief that I would develop adequate plans and schedules for the Implementation of new idea.	1	2	3	4	5
10	The belief that I would often have new and innovative ideas.	1	2	3	4	5
11	The belief that I would often come up with creative solutions to problems.	1	2	3	4	5
12	The belief that I would often have a fresh approach to problems.	1	2	3	4	5
13	The belief that I would suggest new ways of performing work tasks.	1	2	3	4	5

Thank you for your time and cooperation