CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY, ISLAMABAD

Impact of Entrepreneurial Leadership on Project Creativity with the Mediating Role of Innovative Ambidexterity and Moderating Role of Collaborative Culture, in Pakistani Context

by

Azka Tariq

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

in the

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I dedicate this work to my parents, who have always encouraged me to achieve something in life

CERTIFICATE OF APPROVAL

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Abstract

An effective leadership style is recognized as a crucial source of enhancing creativity in project-based organizations. However current research fails provide empirical evidence on which leadership leads to creativity in projects through innovation ambidexterity. This study provides a framework to explore how entrepreneurial leadership impacts the creativity in projects and the way innovation ambidexterity acts as a mediator in the process. Data were collected from 250 respondents from project-based companies of Pakistan. The results indicate that entrepreneurial leadership has a significant and positive impact on creativity in projects. An entrepreneurial leader acts as a risk taker and encourages novelty, therefore, enhances innovation ambidexterity in the organization which in turn results in the creativity in projects. However, findings indicate that collaborative culture does not play the role of a moderator on the relationship between entrepreneurial leadership and creativity in projects. The study significantly contributes to the area of research in the domain of project management. In the end, the implications for project managers and future research are discussed.

Key words: Entrepreneurial leadership, Innovation ambidexterity, Creativity in projects, Collaborative culture.

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Chapter 1

Introduction

1.1 Background of the Study

Leadership is a versatile process which includes all the steps from identifying a specific goal to motivating and supporting others to achieve that goal (Frankel & PGCMS, 2019). It is a soft skill which does not teach what to think but definitely edify how to think in a specific situation (Feldman, 2018). During the last fifteen years, a number of theories regarding leadership have emerged including charismatic, transformational, visionary and inspirational, which focus on the exceptional abilities of the leader (Katz, Eilam-Shamir, Kark & Berson, 2018). According to the study of Caceres (2019), there is no single leadership style that can be claimed as best suited for all situations, the success of a leader depends upon the ability to adapt a leadership style according to the requirement of the time.

Leadership style matters a lot in managing a project and can result in increased output and sustainability (Tabbassi, Argyropoulou, Roufechaei & Argyropoulou, 2016). An effective style of leadership is required for projects because the limited-time nature and diverse team members makes them less committed and interested, hence giving rise to mismanagement, conflict and miscommunication (Zhang, Cao & Wang, 2018). Leadership in projects is a combination of management and leadership, where as a manager, achieving objectives is the focus and as a leader,

influencing, guiding and directing is the emphasis (Pretorius, Steyn, Bon-Bernard 2018).

Today operating a firm has become riskier, ambiguous, dense and complicated, which cannot be operating in an uncertain environment and taking risks to wisely apportion resources is challenging (Weissbrod, 2019). In the current age of internet and connectivity, it is highly feasible to start a business but according to Yang, Pu, Guan (2019), an average enterprise lives for 2.9 years only. This is because of the internal and external pressures on the organization such as demand of high performance, harmonizing clients' demands, and immense level of service satisfaction with scarce resources (Miao, Newman, Schwarz & Cooper, 2018) requires innovation.

For the long term survival of the companies, it is important to have some competitive edge (difficult for the rivals to copy), which can be achieved by innovative approach in thinking (Arzubiaga & Alamo, 2019). It has been accepted by many that Entrepreneurial leadership (EL) is of great prominence for conquering the businesses (Ramsgaard & Warren, 2015). On the word of Zainol, Daud, Abubakar, Shaari and Halim (2018), EL came into existence by the blend of entrepreneur and leadership giving competitive advantage to the organization when applied impeccable. Entrepreneurial leadership creates unique goals for the organizations that are innovative and creative and endorse a sense of risk taking (Cai, Lysova, Khapova & Bossink, 2018).

Effectiveness of leadership depends upon the ability of the leader to find solution of complex issues which is possible only when such skills are available in the leader which help him sort out the situation and deal with the matters hence enabling the leaders to effectively get successful in the organizational projects (Mumford, Zaccaro, Harding, Jacobs & Fleishman, 2000). To be a leader it is highly important to develop such traits which are required by the leaders for effective results, these skills include not only problem solving skills but also social as well as system related skills (Mumford, Marks, Connelly, Zaccaro & Reiter-Palmon, 2000). Therefore, it can be assumed by the theories and researches that leadership qualities are a

must for the manager as well as the leader if he wants his team to be effective and efficient.

In the present age of innovation, there is an increasing demand of creativity. Leaders and managers need to know ways of producing creativity in their work and projects to gain attraction and satisfaction of customers as well as move a step ahead of the competitors. In the recent decades there has been a lot of studies regarding leadership styles and creativity but almost no study on the direct impact of entrepreneurial leadership on creativity in projects with a mediating role of innovation ambidexterity has been seen. The major problem faced by project managers is the inability to use appropriate leadership skills to gain the required output. This study proposes the practice of entrepreneurial leadership for managers, supervisors and leaders to get the element of creativity in the projects. The role of innovation ambidexterity is unexplored in order to define the impact of entrepreneurial leadership on creativity in projects. It is important for the managers to have a knowledge of mediating role it plays in achieving creativity. Similarly, collaborative culture is also undefined as a moderator for these variables. So, this is a novel domain which has not been studied yet with all the variables together i.e. entrepreneurial leadership, creativity in projects, innovation ambidexterity and collaborative culture.

Entrepreneurial leadership is a management style that is extremely important for todays business environment, where nothing significant can be achieved without risk-taking (Winkler, URen & Abraham, 2018). Dahlen and Gratell (2018), vindicated entrepreneurial leader as someone who ingeniously handles the resources, inspires and guides the followers and is always seeking an opportunity. He also creates other entrepreneurial leaders in return by building the traits of vision and inventiveness among them (Altantsetseg, Chen, & Chang, 2017). Hence it is in the favor of organizations to espouse an entrepreneurial culture (Levin, Thaichon, Quach & Lobo, 2018) in order to endorse creativity.

This study focuses on how entrepreneurial leadership leads to the creativity and innovation in a project. As proposed by Donaldson (2018), idea generation and

sense of insight (traits of an entrepreneurial leader) gives way to creativity. Creativity in organizational tasks is of utmost importance in order to survive in the future (Ortmann & Sydow, 2018). Sozbilir (2018), says creativity plays a positive role in increasing the efficiency of an organization. Management of projects is undoubtedly a difficult job (Berg & Karlson, 2015), but a creative, mindful, innovative leadership style can handle the situation without letting it crumble. This study will put entrepreneurial leadership style under study to examine how efficacious it is in inducing creativity in organization. According to Mubarak and Noor (2018), leadership has a very strong relation with the performance of an organization and a major aspect that impacts creativity and innovation. Creativity and novelty in work and ideas is principal if the organization aims to beat the global pressures, manage resources tactfully and have a grip on ambiguous future (Mubarak et al., 2018).

Organizational leader can also use collaborative strategies to make employees or team members work in a better environment and be creative (Kahai, Sosik & Avoilio, 2003). Creativity, the generation of unique ideas is a difficult task for the employees and hence the leader has the responsibility of making the team efficient enough to flaunt creativity in projects. For such a team building and inculcation of creativity, the leader need to develop a culture of togetherness and knowledge sharing where employees can collectively think (Dong, Bartol, Zhang & Li, 2017). Chen (2007), says that an entrepreneurial leader cannot work alone to develop creativity of projects, he needs employees that can work as a team and share their skills, this can be done by providing a collaborative culture. A study conducted by Inbal and Blau (2016), showed that collaborative culture improves the learning behavior and enhances the skills of team. This study also therefore, puts collaborative culture in the spotlight while studying creativity.

Kobarg, Stumpf-wollersheim and Welpe (2019), agrees that innovation in projects is considered to be of utmost importance nowadays. However, corporations and contractors must have a nature of ambidextrous innovation to ensure effective creativity (Song, Jin & Zhao, 2019). Ambidextrous innovation refers to both the capabilities, exploitative and explorative innovation. An organization needs both the

approaches to crop creativity in projects. Innovation ambidexterity can be built by performing contradicting tasks, active decision making, activities performed to extend the abilities and sharpen the skills and also improving the technological and marketable abilities (Zang & Li, 2017). Organizations find it a difficult job to be ambidextrous in order to yield creativity in projects (Dunlop, Parente, Geleilate & Marion, 2016). Sternberg and Lubart (1991), in their book explained, in order to be creative about an area, one needs to know what has been done and needs to be done, in short the person should have the knowledge of up comings to take steps for the future. Therefore, an entrepreneurial leader works with his best abilities to manufacture an innovation driven creative project.

It is significant to study the impact of entrepreneurial leadership on creativity in projects with innovation as a helping hand and collaborative culture as a strength.

1.2 Gap Analysis

Entrepreneurial leadership is relatively a new variable and going through investigative stage (Yang et al., 2019). So far it has been studied in big enterprises and organizations but little focus has been put on the creativity and entrepreneurial leadership in projects and project-based organizations. Therefore, light needs to be shed on this aspect.

While addressing this gap, the study also focuses on the prospective mediator and moderator. The study proposes that innovation ambidexterity mediates the relation of EL and creativity in projects. Whereas collaborative culture plays the role of a moderator. These variables make the study distinctive in the domain of project management as their effect on the main variables is yet to be explored. They should be investigated in order to have knowledge about the means to instill creativity in any project.

These variables altogether have not been studied in the Pakistani context and the findings would be very helpful in filling the contextual gap as well as for the Pakistani managers to gain competitive advantage. This study would be favorable

for giving insights to the managers about the creativity, innovation, effective type of leadership and the advantage of developing a collaborative culture.

1.3 Problem Statement

In the present age of innovation, there is an increasing demand of creativity. Leaders and managers need to know ways of producing creativity in their work and projects to gain attraction and satisfaction of customers as well as move a step ahead of the competitors. In the recent decades there has been a lot of studies regarding leadership styles and creativity but almost no study on the direct impact of entrepreneurial leadership on creativity in projects with a mediating role of innovation ambidexterity has been seen. The major problem faced by project managers is the inability to use appropriate leadership skills to gain the required output. This study proposes the practice of entrepreneurial leadership for managers, supervisors and leaders to get the element of creativity in the projects.

The role of innovation ambidexterity is unexplored in order to define the impact of entrepreneurial leadership on creativity in projects. It is important for the managers to have a knowledge of mediating role it plays in achieving creativity. Similarly, collaborative culture is also undefined as a moderator for these variables. So, this is a novel domain which has not been studied yet with all the variables together i.e. entrepreneurial leadership, creativity in projects, innovation ambidexterity and collaborative culture.

1.4 Research Questions

On the basis of the identified problem, following research questions are the target of this study:

Research Question 1

Which characteristics of a project manager would depict entrepreneurial leadership?

Research Question 2

What are the consequences of project managers entrepreneurial leadership?

Research Question 3

How can creativity in projects be developed?

Research Question 4

What is the importance of creativity in projects?

Research Question 5

Is there any relationship between entrepreneurial leadership and creativity in projects?

Research Question 6

Does innovation ambidexterity increase creativity in projects?

Research Question 7

Does innovation ambidexterity play a role of mediator between entrepreneurial leadership and creativity in projects?

Research Question 8

Does collaborative culture acts as a moderator between entrepreneurial leadership and creativity in projects?

1.5 Research Objectives

The main objective of the study is to develop and test the soundness of the projected model. It will expose the relationship of the variables i.e. entrepreneurial leadership, innovation ambidexterity and creativity in projects.in addition, it will examine how all these variables provide the desired variable i.e. creativity in projects. Also, it would bring light to collaborative culture as a moderator. The specific objectives of this study are listed below:

Research Objective 1

To examine the relationship of entrepreneurial leadership and creativity in projects.

Research Objective 2

To explore the relationship of entrepreneurial leadership and creativity in projects through innovation ambidexterity.

Research Objective 3

To investigate the moderating effect of collaborative culture on the relationship of entrepreneurial leadership and creativity in projects.

Research Objective 4

To test and establish the proposed model for inducing creativity in projects of Pakistan.

1.6 Significance of the Study

As projects demand creativity and novelty, it is important to understand a personality type which can fulfil the demand of present age projects. Entrepreneurial leadership is considered in this study as an effective mean for the success of a creative project. This study would help the managers, supervisors or leaders, get to know a way by which they could provoke creativity in their projects hence have a competitive edge that will help them in the growing competitive environment. Other important traits like innovation ambidexterity and collaborative cultures would act as helping hands to entrepreneurial leaders in making their projects a success.

Such a study has not been conducted in the past decade so this will be helpful for the managers and leaders to achieve their desired level of satisfaction regarding their projects as this model will assist them in finding out new ways of producing creativity in projects by using entrepreneurial leadership skills and supporting collaborative culture throughout the organization.

This domain is also not been discussed in Pakistani context as well. So, it will be in the favor of Pakistani organizations and managers who would use the findings to rearrange their strategies for completing a project and hence yield creativity and innovation in their organizations. They would get to know the importance and usefulness of collaborative culture in organizations and thus be a guiding point for them.

We know how complex the business environment has grown to be. It demands something extra in order to compete in the market. The projects need an element of creativity, novelty and innovation. In this regard, the following study will direct the future managers towards the triumph. The findings of this study will help the future managers and leaders to have an effective leadership style in hand that they can practice to enhance the creativity level of their projects.

1.7 Supporting Theory

Theory that is supporting all the variables of my research and creating a link with these variables directly or indirectly is componential theory of creativity. This theory covers all the dimensions of the model and the model fully justifies this theory. The model has been developed on the constructs of this theory.

As this study is going to explain the effect and influence of entrepreneurial leadership on creativity in projects, using innovation ambidexterity and collaborative culture, the theory also talks about the use of skills, expertise and motivation to produce a creative result. Therefore, componential theory of creativity is the underpinning theory of this study.

1.8 Componential Theory of Creativity

This theory was proposed by Amabile (1983, 1988, 1996), according to which the creativity of an employee is comprised of three major constructs, expertise, creative thinking and motivation. Expertise refers to the skills, knowledge and

capability, while motivation is the drive to do something and the extent to which one wants to achieve an aim. Whereas creative thinking is the capacity to develop new ideas and innovative thoughts.

According to Sternberg and Gluck (2018), the first thing required to be creative is technical skills, knowledge and expertise. In the model these things combine up to make entrepreneurial leadership. The componential theory of creativity is the explanation of the factors required to produce creativity for individuals as well as organization (Kessler, 2013). Componential theory of creativity proposes that divergent thinking, risk taking and the ability to find the solution to a problem are all the requirements for creativity (Runco & Vega, 1990).

This theory can be considered while studying the model, as the variables matches those traits which are explained by Amabile in her theory. Entrepreneurial leadership is a variable for the construct of expertise and skills. Whereas, collaborative culture would define the increased motivation level and innovation ambidexterity refers to the innovative capacity explained in the theory. These all variables combine to result creativity.

Creative people have a mild sight of madness in them, therefore, creativity requires out of the box madness (Amabile, 1993). Relevant skills are very important for inducing creativity, which include skills related to tasks, domain and motivation (Amabile, 1983). The task motivation can be both intrinsic and extrinsic whereas the domain relevant skills mean the special knowledge about a task or a certain talent (Lubart, 1999).

The expertise and skills of an individual as well as the project team make up more chances for creative output. Creativity is not easy to achieve, it varies from task to task. Hence the team members having more relevant skills and the knowledge related to the domain, would better be able to inculcate creativity. As suggested by the theory, the model also proposes that that the team members as well as the manager or leader having domain specific skills and expertise will be successful in achieving the agenda of a creative project output. Therefore and entrepreneurial leader is required according to the proposed model. Because such a leader or manager knows what to do in order to make the project prosper in the right

direction. He will be willing to take risks because they would not be an arrow in the air rather the completely acknowledged and well sorted steps.

Similarly, the theory claims that motivation results in creativity which in this model is defined through collaborative culture. The model proposes that a collaborative culture in the organization will enable the team members to boost their morals and work with each other to innovate new ideas. A collaborative culture is an easier approach of doing the tasks that too with efficiency (Barczak, Lassk & Mulki, 2010). The team members work in cooperation with each other. They share their ideas, create new ideas as well as pour in their suggestions for the existing work. In a collaborative culture, work is done with mutual consent and understanding in this way, all the individuals combine to think of solutions to a single problem. Therefore, it can me suggested that a collaborative culture creates motivation among employees and team members to be creative. The innovative capacity that Amabile talks about in the theory has been taken in the study as innovation ambidexterity. Innovation ambidexterity refers to the exploitative as well as explorative innovation of an organization.

Chapter 2

Literature Review

2.1 Relationship between Entrepreneurial Leadership and Creativity in Projects

Entrepreneurs are looked upon as heroes in the contemporary work systems and for the development of economies (Chung-Wen, 2008). The entrepreneurial leadership involves such activities which encourage other members of the group to think and act out of the box (Renko, Tarabishi, Carsrud & Brannback, 2015). The innovative capacity of new project depends on the ability of an entrepreneurial leader as well as the creativity level of his team (Chen, 2007). According to Fernald et al. (2005), the entrepreneurial leadership is based on three components, capturing the opportunity of a profitable idea, enlarging resources through different techniques and then promoting the innovation and change using enhanced resources. Such leaders have proactive personalities and are risks averse (Chan, Uy, Chernyshenko, Ho & Sam, 2015).

21st century has endorsed entrepreneurs as the most useful emerging power for the business who act as catalysts of change and look for opportunities in the situations that seem to be chaos for others (Kuratko, 2007). According to the componential theory of creativity, the skills, knowledge and experience of a person matters the most because this would then transpire creativity. Surie and Ashley (2008), suggests that entrepreneurial leaders are similar to other leaders in case of

motivating, but they unlike others, encourage the riskier, vulnerable and unusual activities instead of status quo, conventional and career secured ones. Organizations today go through paradigm shifts that require a different style of leadership so that all businesses, large and small, can be competitive (Fernald, Solomon & Tarabishy, 2005). As stated by Kansikas, Laakkonen, Sarpo and Kontinen (2012), entrepreneurial leader has the ability to be a risk taker, effective at negotiating and bargaining as well as opportunity seeker and value creator. The organizations today, undergo radical shifts instead of linear, gradual changes, hence it is important to have an entrepreneurial mentality is action oriented and focuses on problem solving in a unique way (Jones & Crompton, 2009). Miao, Eva, Newman and Cooper (2018), explained entrepreneurial leadership as the source of influencing the group members towards the achievement of goals by analyzing and exploiting new opportunities.

The communication style of the leader matters a lot in order to get trust in the leader as well as get employees commitment and satisfaction therefore, task oriented leadership is considered less communicative while charismatic and human oriented leadership is more communicative (De Vries, Bakker-Pieper Oostenveld, 2010). In this regard it is reported that female have a more touch of transformational leadership style than males because they show more interaction with the teams, a trait which is reported to be a reason behind success therefore, female leaders having such a leadership style are more successful than males who are task oriented (Burke & Collins, 2001). The function of job nature, gender, department and the nationality has also been seen in order to see the leadership style differences in different variables but the results show and even distribution of leaders in all of these domains which shows that leadership is regardless of the sector, gender or any nationality (Dulewicz & Higgs, 2005). Leadership is also related to ethics especially transformational and transactional leadership (Aronson, 2001).

The studies show that leadership style is very important for the proper success of the work and projects. Also the right type of style for the related work is required. Leadership is the possession of special qualities such as intuition, positivity, enthusiasm, the ability to communicate the zest and the competency in

emotions whereas, there is a link between the emotional aspect of leadership as well as the behavioral aspect (Ashkanasy & Tse, 2000). Studies also suggest that effective managers and leaders have specific traits that are different from rest of the people, this is how he is differentiated from rest of the population (Kirkpatick & Locke,1991). The key traits of leader include the drive or thirst to achieve the target as well as setting an unexpected target because he is a risk taker, including confidence, integrity and the honesty (Kirkpatick et.al., 1991). Research also suggests that traits of the leaders and those of experts are somehow similar (Germain, 2012).

Effective leadership is the one that knows how to manage different paradoxes, these paradoxes are situations that are different yet very interconnected and the leaders abilities are judged by the fact that how well he manages these paradoxes (Smith & Lewis, 2012). Studies show that team members do not leave organizations rather they leave the managers and leaders. No leader is effective if he is not able to influence, motivate and satisfy his team members. Therefore, it is very important to develop the traits of an effective leader in order o be a good manager and retain the employees.

The true spirit of an entrepreneurial leader can only be measured if the extent of creativity produced is measured, which will happen by assessing progress made through innovation (Kuratko & Hornsby, 1999). Entrepreneurial leadership therefore has gained a lot of attention as a new theory which will be helpful for future research as well as practice (Bagheri & Pihie, 2011). As researched by Jones and Crompton (2009), an entrepreneurial leader has two important tasks to do, one is to create an environment of change and secondly, convincing the stakeholders to adapt those changes by providing resources for implementation. Wright, Hmieleski, Siegel, & Ensley (2007), proposed that customary entrepreneurs have vast social links and are experts in developing networks thus are less likely to face structural holes in their plans. Entrepreneurial ability is not something measurable, it is variable and depends on the innovativeness, risk-taking and pre-emptive behavior of the leader (Kurato, 2007).

To develop something creative, the leader needs to possess the skills that lead him to think creative (Mumford, Connelly & Gaddes 2003). Moreover, the leaders focus on time is also very critical in order to effectively lead an innovation driven project (Halbesleben, Novicevic, Harvey & Buckley, 2003). Olilla (2000), suggests that leader can be made effective if they develop a habit of consciously assessing their own habits specially in project-based organizations.

When such a product or service is produced which is both unique and useful with respect to the organization producing it, it is considered to be creative (Kratzer, Gemnden & Lettl (2008). In the history, creativity or the aptitude of using the brain in a unique way was considered to be a divine act which was not common in all (Jonasson & Ingason, 2017). Many studies show that creativity is required in all the fields (Hsu, Fan, Yu, Lin & Han, 2015). Taylor and Littleton (2012), in their book proclaimed that employees often run from their jobs and resign because of the monotonous and uncreative work. According to Kerr et al. (2017), Iceland is the most creative country with every fourth person working on a creative project. Creativity is the main reason behind the booming companies, the growth of projects and increase in value (Mubarak & Noor, 2018).

Leadership is a versatile process which includes all the steps from identifying a specific goal to motivating and supporting others to achieve that goal (Frankel & PGCMS, 2019). It is a soft skill which does not teach what to think but definitely edify how to think in a specific situation (Feldman, 2018). During the last fifteen years, a number of theories regarding leadership have emerged including charismatic, transformational, visionary and inspirational, which focus on the exceptional abilities of the leader (Katz, Eilam-Shamir, Kark & Berson, 2018). According to the study of Caceres (2019), there is no single leadership style that can be claimed as best suited for all situations, the success of a leader depends upon the ability to adapt a leadership style according to the requirement of the time.

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Although it is clear that creativity increases the output efficiency, but the research shows that many people do not know how to implement creativity (Lu, Akinola & Mason, 2017). Lu et al. further proposed that periodic breaks between work and some kind of distraction from routine would foster creativity because their minds would start working with a fresh start hence assist them think out of box.

But most of the leaders do not know how to schedule the work of employees for getting creative results. As claimed by Mubarak et.al. (2018), the right type of leadership is very important to give employees an environment for practicing their novel and unique ideas. An entrepreneurial leader can serve the purpose, because he is also a risk taker and good analyzer of opportunities. As leaders and followers go in the same flow (Mokhber, Tan, Vakilbashi, Zamil & Basiruddin, 2016), an entrepreneurial leader can make the team work for creativity in projects. As the study of Chen (2007), considering 112 entrepreneurial teams concluded that a leaders innovative, risk taking, and entrepreneurial abilities can result in the creativity of the team and hence in the entire project.

H1: There is a positive relationship between entrepreneurial leadership and creativity in projects.

2.2 Relationship between Entrepreneurial Leadership and Innovation Ambidexterity

Ambidexterity refers to being able to behold the current situation as well as being up to date about the up comings (Koryak, Lockett, Hayton, Nicolaou & Mole, 2018). Innovation ambidexterity focuses on applying the novel ideas, creative thoughts and using the skills to grab opportunities for future work (Ko & Liu, 2019). Ferreira, Coelho and Weersma (2019), also puts light on this concept saying it is the ability to produce new products keeping in mind the recent technology as well as the future implications. Researchers state innovation ambidexterity as a combination of exploitative and explorative ambidexterity. Acosta, Popa and Conesa (2018), stated the explorative and exploitative innovation to be two end of the same continuum. Limaj and Bernroider (2019), explicated explorative innovation to be the vibrant capacity of individual to create something new, whereas exploitative innovation is exploring the existing opportunities for a neoteric creation.

Leader is the person in the group who directs and assembles others to do the tasks and coordinates them for group activities to perform functions within the group, this leader is either appointed by a larger population or is selected by a group (Fiedler, 1964). Studies show that higher emotional intelligence accounts for higher effectiveness in leadership (Rosete & Ciarrochi, 2005). A review of more than 150 researches show that there is a crystal clear link between ethical values and practices and effectiveness of leadership, whereas, these values that maybe considered to be spiritual ideals, such as being honest, showing integrity and high morals, have been seen to have a positive effect on leadership success just like the practices which are traditionally linked with spirituality in routine have also proved to be linked to leadership effectiveness (Reave, 2005). Leadership effectiveness can also be increased by the feedback mechanism, a peer to peer feedback or coaching simultaneously increases the effectiveness (Thach, 2002).

There are different behaviors that sharpen the abilities and effectiveness of the leader. Some of them include the ability of driving motivation as well as the efficiency to create groups and make them work as per your demands but in such a way that the team members take it as a chance to grow, learn and succeed, not as a burden. In this way a leader is said to be achieving his goals and being effective. A leader who takes risks and not only individually act upon his ideas but also advocates them in front of his team members and communicate it in such a way that the members become a part of the venture within the project. This is the process that induces creativity in the projects when the whole team along with the leader or manager agrees to take the risk and start off equally motivated.

Innovation ambidexterity is not an easy task to be achieved and until now there is not an example of an organization that is fully ambidextrous. this is because it takes a lot of effort and resources to be innovative. Innovation ambidexterity is the radical and the gradual progress in innovation which means creating new ideas and working upon them to increase an organizations efficiency.

The importance of explorative and exploitative innovation lies in the fact that it helps an organization gain competitive advantage and increases the business performance by providing both incremental and radical innovation (Lin, McDonough,

Lin & Lin, 2013). But this may be challenging for organizations as they may achieve incremental innovation through exploiting present resources whereas conquering radical innovation by exploring the new opportunities is harder (Andriopoulus & Lewis, 2009). Attaining incremental innovation is easier because it deals with getting information by exploiting existing knowledge and making products for existing customers whereas new knowledge and new skills are required to explore the new customers and their needs hence reaching the level of radical innovation (Lin & McDonough, 2011). Lin and McDonough (2014) also noted that the knowledge required for innovation can be attained from the external as well as internal source which will in both ways contribute in learning of the organization thus delivering innovation ambidexterity.

Innovation is reported as a change in the status quo, which is responsible for discovering new things (Oke, Munshi & Walumbwa, 2009). The findings from the study of Hoch (2013), suggest that its not the team but the type of leadership that results in the innovative behavior of the organization. There are a number of ways a leader can use to empower his team by task motivation and involvement in decision making which will lead to an innovative working environment (Burpitt & Bigoness ,1997). Furthermore, the ability of the leader creates and innovative environment but it doesnot only depends on the situation in hand rather the creative thinking sskills as well as technical abilities play an important role (Mumford & Licuanan, 2004). The behavior of leader stimulates the thought process of the team and encourages them to be innovative (De Jong & Den Hartog, 2007).

Rosing, Frese and Bausch (2011), stated that exploration is related to new experiences, risk taking, thinking out of the box and searching for new ways whereas exploitation refers to staying within the guidelines, sticking to the rules and following the status quo. Both of these are crucial for the production of innovation and cannot be achieved without a proper leadership. A risk adopting manager or leader would encourage a culture of experimentation and welcome new opportunities which motivates innovation ambidexterity (Chang & Hughes, 2012). It is suggested that the leaders cannot find an already existing creative team rather he would have to develop one (Bledow, Frese & Mueller, 2011). This shows that

an entrepreneurial leadership style can carve out an innovative environment. Entrepreneurial leader can create a direct link with innovation ambidexterity because his main focus is to encourage novelty of activities (Mokhber et.al. 2016), which in turn gives way to innovation. What differentiates other leadership styles from entrepreneurial leadership is that it involves thinking out of the box to seize the opportunities and also making team members do so (Renko, 2017). And this is defended by Brion, Mothe and Sabatier (2010), who stated that risk taking and flexibility (traits of EL) causes innovation ambidexterity. It is important for the manager to work on new organizational norms, structures, activities and systems that would explore new approaches towards the existing technology and other resources, hence assisting in innovation creation (Mom, Van Den Bosch & Volberda, 2007). Thus, the previous studies show that leadership behavior is an important precursor of innovation Zacher & Rosing (2015).

H2: There is positive relationship between entrepreneurial leadership and innovation ambidexterity.

2.3 Relationship between Innovation Ambidexterity and Creativity in Projects

Innovation is often referred to something that leads to change (Martins & Terblanche, 2003). The componential theory of creativity argues that creativity is the result of a complex relation of constructs, one of which points towards innovation. Innovation is the implementation of new ideas after ambidextrously seeking the existing and potential opportunities which result in overall improvement of creativity in projects (Rank, Pace & Frese, 2004). Innovation ambidexterity can be promoted through different methods, one of which is encouraging employees to do contrasting tasks simultaneously (Zang & Li, 2017). It is a practical application of ideas and for an organization to have creativity, development of innovative ideas is very crucial (Westwood & Low, 2003).

Hoegl & Parboteeah (2007), argues that skills related to creativity are of two types, the domain related skills which is technical knowledge of the problem area and second is the skill of thinking creative, which includes out of the box ideas. The team produces the most creative results when they are given supportive environment and not the one that is controlled and checked upon (Oldham & Cummings, 1996). The results from research of Shalley (1991), shows that the creativity of employees decrease when the environment focuses only on productivity goals and not on creativity. It is therefore very critical for organizations to be creative for competitive advantage because changing the status quo can cause conflict (Bassett-Jones, 2005). Nijstad and De Dreu (2002), suggests that groups tend to be more creative than individual person as a single person does not enjoy his work as much as in group resulting in something creative.

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making which will lead to an innovative working environment (Burpitt & Bigoness ,1997). Furthermore, the ability of the leader creates and innovative environment but it doesnot only depends on the situation in hand rather the creative thinking sskills as well as technical abilities play an important role (Mumford & Licuanan, 2004). The behavior of leader stimulates the thought process of the team and encourages them to be innovative (De Jong & Den Hartog, 2007).

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Innovation and creativity go side by side. According to Lajos (2016), for a competitive project, both creativity and innovation are critical. As said by Kerr et.al. (2017), innovation is the use of ground-breaking ideas that in turn gives rise to the

creativity in projects. Moreover, innovation ambidexterity (explorative aspect), gives opportunity to act as first movers (Chang, Huges & Hotho, 2011), hence triggering creativity. Thus, the organizations that focus both on exploitation and exploration innovation are proficient enough to generate creative products (Lin & McDoughnoIII, 2011). As Zhang, Edgar, Geare and Okane (2016), explained the mediating role of innovation ambidexterity and claimed that it improves the activity level and creativity of organizations.

H3: There is a positive relationship between innovation ambidexterity and creativity in projects.

2.4 Mediating Role of Innovation Ambidexterity between Entrepreneurial Leadership and Creativity in Projects

Agbor (2008), argues that for achieving innovation and creativity in an organization, the essential element is a leader who implements the required type of strategy to endorse innovation and hence creativity. Announcement of monetary rewards for a specific task can increase the productivity level of an employee but giving him the freedom to choose the way to perform the task will increase his interest and as a result creativity (Woodman, Sawyer & Griffin, 1993). Ambidexterity is very important to achieve competitive advantage; therefore, it is a pressure on organizations to deliver innovative as well as efficient services (Turner, Swart & Maylor, 2013). An entrepreneurial leadership, we propose, play a role of the efficient resource allocator and creativity creator through exploration and exploitation of opportunities.

A study by Yuan and Woodman (2017), shows that the employees become innovative when the supervisor has a quality relationship with them, gives an environment that appreciates innovativeness and the employee himself being displeased with status que. When the employees perceive that they need to work innovatively,

they start working in that way (Shin, Yuan & Zhou, 2017), it is the only requirement to make them feel that way. Innovation ambidexterity is enabled by the milieu which accepts risk, ambiguity, uncertainty, allows independence and gives authority (Yao, Yang, Dong & Wang, 2010). Entrepreneurial leaders value creativity and innovation therefore encompass creativity in their own behaviors, giving way to an organizational culture which shows innovation ambidexterity (Baron & Tang). Such leaders also encourage voice behavior and it fosters creativity as a result of their beneficial opinions (Chen & Hou, 2016), based on ambidexterity.

Leadership is a versatile process which includes all the steps from identifying a specific goal to motivating and supporting others to achieve that goal (Frankel & PGCMS, 2019). It is a soft skill which does not teach what to think but definitely edify how to think in a specific situation (Feldman, 2018). During the last fifteen years, a number of theories regarding leadership have emerged including charismatic, transformational, visionary and inspirational, which focus on the exceptional abilities of the leader (Katz, Eilam-Shamir, Kark & Berson, 2018). According to the study of Caceres (2019), there is no single leadership style that can be claimed as best suited for all situations, the success of a leader depends upon the ability to adapt a leadership style according to the requirement of the time.

Leadership style matters a lot in managing a project and can result in increased output and sustainability (Tabbassi, Argyropoulou, Roufechaei & Argyropoulou, 2016). An effective style of leadership is required for projects because the limited-time nature and diverse team members makes them less committed and interested, hence giving rise to mismanagement, conflict and miscommunication (Zhang, Cao & Wang, 2018). Leadership in projects is a combination of management and leadership, where as a manager, achieving objectives is the focus and as a leader, influencing, guiding and directing is the emphasis (Pretorius, Steyn, Bon-Bernard 2018).

Today operating a firm has become riskier, ambiguous, dense and complicated, which cannot be operating in an uncertain environment and taking risks to wisely

apportion resources is challenging (Weissbrod, 2019). In the current age of internet and connectivity, it is highly feasible to start a business but according to Yang, Pu, Guan (2019), an average enterprise lives for 2.9 years only. This is because of the internal and external pressures on the organization such as demand of high performance, harmonizing clients' demands, and immense level of service satisfaction with scarce resources (Miao, Newman, Schwarz & Cooper, 2018) requires innovation. For the long term survival of the companies, it is important to have some competitive edge (difficult for the rivals to copy), which can be achieved by innovative approach in thinking (Arzubiaga & Alamo, 2019).It has been accepted by many that Entrepreneurial leadership (EL) is of great prominence for conquering the businesses (Ramsgaard & Warren, 2015). On the word of Zainol, Daud, Abubakar, Shaari and Halim (2018), EL came into existence by the blend of entrepreneur and leadership giving competitive advantage to the organization when applied impeccable. Entrepreneurial leadership creates unique goals for the organizations that are innovative and creative and endorse a sense of risk taking (Cai, Lysova, Khapova & Bossink, 2018).

Taking the example of New Flyer company of USA, Nijhof, Krabbendam and Looise (2002), says that the CEO of the company was an entrepreneur who worked by embracing risks, reading the abilities of people and recognizing the opportunities, resulting in innovative projects. According to the study of Amabile, creativity in a project comes from the various factors which include employees' ability of innovative ideas as well as leaders ability of encouraging the creation of those ideas (okpekin & Knudsen, 2012).

H4: Innovation ambidexterity mediates the relationship between entrepreneurial leadership and creativity in projects.

2.5 Moderating Role of Collaborative Culture between Entrepreneurial Leadership and Creativity in Projects

Collaborative culture, considered as the vital spark of an organizational success, is defined as supporting and assisting each other within the organization for the efficient achievement of objectives (Srivastava & Banaji, 2011).The purpose is to develop open communication and reduce the barriers that transpire due to organizational structure and encourage innovative initiatives (Prez Lpez, Manuel Montes Pen & Jos Vzquez Ords, 2004). The norm of collaboration ensures that the colleagues share responsibility and there is delegation of authority which allows continuous improvement in thought process as well as implementation (Demir, 2008). A collaborative culture is not only the medium of support for employees but also gives insight of the situation and acts as a platform for organizational progress (Edmonson et al., 2001). Sanchez (2012), indicated that the factors that contribute most toward collaborative culture are; the autonomy for a shared objective, involvement in decision making, and consideration of oneself as a part of community, referred to as the sense of belongingness. The knowledge increases with the exchange of ideas, uninterrupted communication and removes barriers in the development of workforce, causing it to improve the productivity (Sita Nirmala Kumaraswamy & Chitale, 2012), hence creativity.

The true spirit of an entrepreneurial leader can only be measured if the extent of creativity produced is measured, which will happen by assessing progress made through innovation (Kuratko & Hornsby, 1999). Entrepreneurial leadership therefore has gained a lot of attention as a new theory which will be helpful for future research as well as practice (Bagheri & Pihie, 2011). As researched by Jones and Crompton (2009), an entrepreneurial leader has two important tasks to do, one is to create an environment of change and secondly, convincing the stakeholders to adapt those changes by providing resources for implementation. Wright, Hmieleski, Siegel, & Ensley (2007), proposed that customary entrepreneurs have

vast social links and are experts in developing networks thus are less likely to face structural holes in their plans. Entrepreneurial ability is not something measurable, it is variable and depends on the innovativeness, risk-taking and pre-emptive behavior of the leader (Kurato, 2007).

To develop something creative, the leader needs to possess the skills that lead him to think creative (Mumford, Connelly & Gaddes 2003). Moreover, the leaders focus on time is also very critical in order to effectively lead an innovation driven project (Halbesleben, Novicevic, Harvey & Buckley, 2003). Olilla (2000), suggests that leader can be made effective if they develop a habit of consciously assessing their own habits specially in project-based organizations. When such a product or service is produced which is both unique and useful with respect to the organization producing it, it is considered to be creative (Kratzer, Gemnden & Lettl (2008). In the history, creativity or the aptitude of using the brain in a unique way was considered to be a divine act which was not common in all (Jonasson & Ingason, 2017). Many studies show that creativity is required in all the fields (Hsu, Fan, Yu, Lin & Han, 2015). Taylor and Littleton (2012), in their book proclaimed that employees often run from their jobs and resign because of the monotonous and uncreative work. According to Kerr et al. (2017), Iceland is the most creative country with every fourth person working on a creative project. Creativity is the main reason behind the booming companies, the growth of projects and increase in value (Mubarak & Noor, 2018).

Although it is clear that creativity increases the output efficiency, but the research shows that many people do not know how to implement creativity (Lu, Akinola & Mason, 2017). Lu et al. further proposed that periodic breaks between work and some kind of distraction from routine would foster creativity because their minds would start working with a fresh start hence assist them think out of box. But most of the leaders do not know how to schedule the work of employees for getting creative results. As claimed by Mubarak et.al. (2018), the right type of leadership is very important to give employees an environment for practicing their novel and unique ideas. An entrepreneurial leader can serve the purpose, because he is also a risk taker and good analyzer of opportunities. As leaders and followers

go in the same flow (Mokhber, Tan, Vakilbashi, Zamil & Basiruddin, 2016), an entrepreneurial leader can make the team work for creativity in projects. As the study of Chen (2007), considering 112 entrepreneurial teams concluded that a leaders innovative, risk taking, and entrepreneurial abilities can result in the creativity of the team and hence in the entire project.

Collaborative culture can be considered as a subunit of organizational culture, as it is also based on shared values (Meredith et al., 2017). The literature shows that effective teams result when there is clear communication, mutual trust and no misunderstandings, hence a collaborative culture (ODaniel & AH., 2008). As detailed by Walker, David and Stevenson (2017), it reduces vagueness among team members and ambiguity of the task and goals. A study conducted by Bates et.al. (2019), also marked that collaborative culture gives rise to improved working conditions as well as better coordination. It is an amalgam of employee empowerment, trust, teamwork and diversity. A collaborative culture has significant positive effect on teams creativity (Ahmed, Shehzad, Aslam, Bajwa & Bahoo, 2016). Bughzala and Vreede (2015), also noted that culture of an organization has a direct effect on the resulting creativity of the project. The more collaborative the culture, the more creative outputs. Graham and Gandini (2017), writes in their book that creativity is a plant to which collaborative culture acts as a seed.

The study of Hill and Bartol (2016), proposed that an effective leadership, the one which empowers team, is positively associated with team collaboration. Our study suggests that EL gives way to creativity in projects and this relation is strengthened by collaborative culture. The literature puts little light on entrepreneurial leadership in this domain but many researchers like Cha, Kim, Lee and Bachrach (2015), agree to the fact that leadership and collaborative culture are associated with each other.

A collaborative culture would allow members to socialize, work in unity, and develop team practices which will foster a sense of open mindedness helping them to think and act creatively (Andriopoulos & Lewis, 2009). An organization gets creative when the team understands and accepts the goals and values in addition to being welcomed for pouring in new ideas and being listened to and hence given

support for creativity (Anderson, Potocnik & Zhou, 2014). This collaborative culture is provided by entrepreneurial leader who welcomes novelty and out of the box ideas, therefore, causing creativity to be the outcome.

An entrepreneurial leader may fail to achieve creativity but the whole entrepreneurial team, who is acting together towards a visionary scenario is less likely to fail (Chen, 2007). This supports the statement that collaborative culture of the team moderates between leader and creativity. Team member diversity, where members are unique but united, also helps in the achievement of high level of creativity because they have open communication, sharing of ideas, tolerance for disagreement and acceptance of openness (Amabile, Conti, Coon & Lazenby, 1996).

H5: Collaborative culture moderates the relation between entrepreneurial leadership and creativity in projects such that in strengthens the relationship.

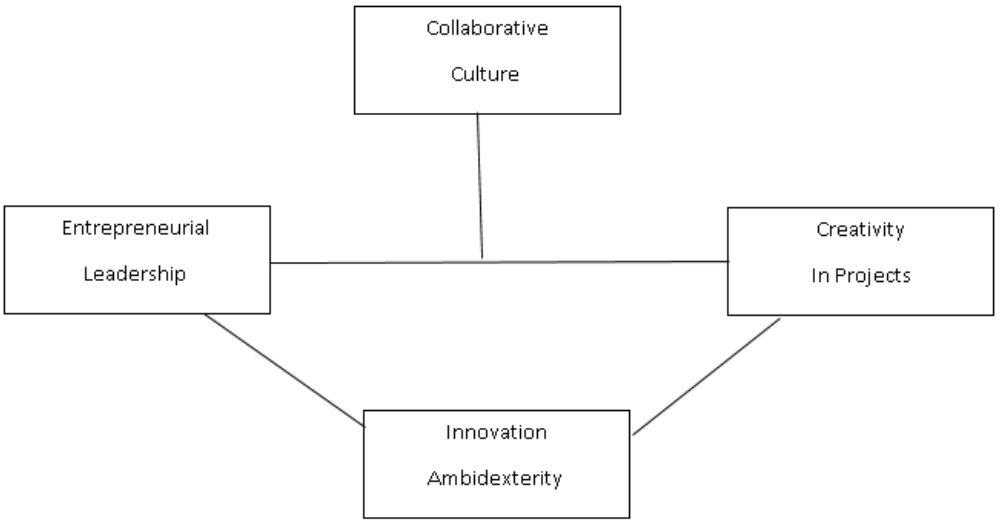

FIGURE 2.1: Research Model

2.6 Research Hypothesis

H1: There is a positive relationship between entrepreneurial leadership and creativity in projects.

H2: There is positive relationship between entrepreneurial leadership and innovation ambidexterity.

H3: There is a positive relationship between innovation ambidexterity and creativity in projects.

H4: Innovation ambidexterity mediates the relationship between entrepreneurial leadership and creativity in projects.

H5: Collaborative culture moderates the relation between entrepreneurial leadership and creativity in projects such that in strengthens the relationship.

Chapter 3

Research Methodology

This chapter focuses on all the methods used to get authentic results for the research. It includes details of population, characteristics of sample, design of sampling techniques, instruments and their reliabilities.

3.1 Research Design

The research aims to highlight the effect of entrepreneurial leadership on creativity in projects. For this purpose, the correlation of variables has been studied. The target was project-based organizations so data has been collected from the employees and leaders of such organizations. Originally 300 questionnaires were distributed but 250 genuine responses are collected. This sample of 250 represents the whole population of project-based organization in Pakistan.

3.1.1 Research Philosophy and Quantitative Research

The hypothetical deductive method is used for this research which means the study used previous literature and theories to develop hypothesis which was then tested. Since quantitative research is the most effective in producing quality results of a huge population, therefore, this research is also quantitative which helped in linking the variables to each other.

3.1.2 Unit of Analysis

One of the essential elements of research is unit of analysis, which stretch from individuals to groups, organizations and cultures. This study emphasizes on dyadic relationship between leader and project members hence the unit of analysis is dyadic. The entrepreneurial leaders in project-based organizations gives way to innovation ambidexterity which as a result becomes the cause of creativity in projects. Therefore, the data has been collected from project-based organizations.

3.2 Population and Sample

3.2.1 Population

The population of this research was project team members and leaders/ managers of project-based organizations in Pakistan. The emphasis of this research is on innovation and creativity in projects therefore such respondents were required that are aware of creativity and its importance in projects. Project based organizations were the perfect source of data collection in this regard.

3.2.2 Sample and Sampling Techniques

It is very difficult to collect data from the entire population, which in this case is all the project-based organizations of Pakistan. This is not possible due to time and resource constraints. Hence a small group is selected which represents the entire population because it shares the similar characteristics as that of the population. Therefore, a sample was selected from among the project-based organizations to collect data.

The sample required such individuals that were involved in some kind of projects and were either leading the project or working under some supervision for that project. It was very important that the respondents were well aware of the terms like innovation and creativity. The organizations selected for data collection had deep understanding of significance of creativity in a project. They also had strong

sense of collaborative culture and hence proved to be an authentic source of data collection. Thus, the selected sample of study was a true representative of the population.

The study envisioned to highlight the role of entrepreneurial leadership in firms innovation ambidexterity and the growth of creativity in projects. The sample includes both the project team members and managers or leaders of the project.

Convenient sampling was used due to limited time and resources. This sampling technique is a type of non-probability sampling. it involves random data collection which is both feasible as well as efficient for data collection in limited resources. Questionnaires were distributed among the employees and managers for data collection. 300 questionnaires were distributed out of which 250 contained useful information.

3.3 Sample Characteristics

The demographics of this study include the age of project team members as well as the leader. Also, the gender, qualification, experience and income of both the leader and the team members. These demographics might have an impact on the study and effect the variables and their relations. Two types of questionnaires were distributed, one for the project team members and the other to be filled by project leader or manager. The leader had to fill the questionnaire for the employees whereas, employees/ team members filled the responses for the leader. As this is a dyadic relationship therefore, a two-part questionnaire was effective. The details of samples characteristics are detailed below:

3.3.1 Gender

Gender is an important demographic because it depicts the level of equality among males and females. It also shows the male to female ratio in any research. The study has collected data from the individuals without any bias but the results show that the ratio of males is greater than females.

TABLE 3.1: Frequency of gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	147	58.8	58.8	58.8
Valid	**Female**	102	40.8	40.8	99.6
	4.0	1	0.4	0.4	100
	Total	250	100	100	

The table 3.1 shows 58.8 percent of the respondents were males whereas 40.8 percent of the sample contained females.

3.3.2 Age

Age is another important demographic which is used for the convenience purpose of the respondent as well as the researcher. It gives an overview of the type of individuals involved in the research. The respondents of this research belonged to the following age groups:

TABLE 3.2: Frequencies of Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**18-25**	178	71.2	71.2	71.2
	26-33	35	14.0	14.0	85.2
	34-41	36	14.4	14.4	99.6
	42-49	1	0.4	0.4	100
	Total	250	100.0	100.0	

The table 3.2 explains 71.2 percent, which means a major part of the respondents, is between 18 to 25. Individuals with the age ranging from 26-33 are 14 percent and those within the age of 34 to 41 are also 14 percent. Whereas only 0.4 percent of the sample contained people within the age of 42 to 49.

3.3.3 Qualification

Qualification of the respondents plays an important role in research because it is very important that the respondents know what they are being asked about. It is

also important to ask the right type of individual about the right type of question.

Table 3.3: Frequencies of Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Matric**	1	0.4	0.4	0.4
	Inter	32	12.8	12.8	13.2
	Bachelors	36	14.4	14.4	99.6
	Masters	152	60.8	60.8	74.0
	MS	35	14.0	14.0	99.6
	PhD	1	0.4	0.4	100
	Total	250	100.0	100.0	

The results show that 60.8 percent of individuals have the qualification of bachelors whereas 14 percent being MS degree holders. Rest 12 percent have qualified intermediate and 11 percent have done masters.

3.3.4 Experience

Experience was also added as a demographic in the research because it depicts the level of expertise the individual is on. Its helps in a better understanding of the variables as to how does experienced employee differ from inexperienced in their responses. The following table shows the percentages.

Table 3.4: Frequencies of Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**0-5**	200.0	80.0	80.0	80.0
	6-10	34.0	13.6	13.6	93.6
	11-15	5.0	2.0	2.0	95.6
	16-20	8.0	3.2	3.2	98.8
	21-25	3.0	1.2	1.2	100.0
	Total	250.0	100.0	100.0	

As the table shows 80 percent of the employees have an experience of up to 5 years. While 13 percent are shown to have an experience of 6 to 10 years. A few individuals, i.e. 2 percent, 3 percent and 1 percent have the experience of 11-15, 16-20 and 21-25 years respectively.

3.3.5 Income

Income is also added as a demographic in the research questionnaire which was used to help understand better about the individuals that were taking part in the research. The following findings on this basis are seen:

TABLE 3.5: Frequencies of Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**25-50K**	134.0	53.6	53.6	53.6
	50-75K	90.0	36.0	36.0	89.6
	75-100K	19.0	7.6	7.6	97.2
	100K above	7.0	2.8	2.8	100.0
	Total	250.0	100.0	100.0	

This table shows that 53.6 percent of individuals have an income of 25-50 thousand whereas those earning 50-75 thousand are 36 percent. Only 2 percent individuals earn above 100K.

3.4 Control Variables

Age, gender, qualification, experience and income were considered as control variables as they might have some effect on the entrepreneurial leadership and creativity in projects. For this purpose, one-way ANOVA test was performed which would show their significance. As per the results of the ANOVA test, all the variables of this study except qualification and experience are insignificant and do not put any significant impact on the variables. Hence, only qualification and experience need to be controlled ($p > 0.05$).

Table 3.6 shows that gender remains insignificant for entrepreneurial leadership ($p = 0.22$) as well as creativity in projects ($p = 0.193$). Similarly, age is also insignificant with the values like, $p = 0.816$ for entrepreneurial leadership and $p = 0.110$ for creativity in projects. Experience however, has a significant impact on both the variables with the values $p = 0.021$ and 0.032. Qualification has the value $p = 0.33$ for entrepreneurial leadership and $p = 0.46$ for creativity in

Table 3.6: Control Variables

Variables	**Entrepreneurial Leadership**		**Creativity in Projects**	
	f	***p***	***f***	***p***
Age	3.875	0.22	1.658	0.193
Gender	2.312	0.816	2.034	0.110
Qualification	2.456	0.021	2.692	0.032
Experience	2.443	0.033	2.291	0.046
Income	1.168	0.322	1.463	0.225

projects therefore, is significant. Income is insignificant for entrepreneurial leadership ($p = 0.322$) and for creativity in projects ($p = 0.225$). Hence, qualification and experience need to be controlled.

3.5 Data Collection

For the primary data collection, structured questionnaires were distributed. The study involved data collection from those individuals that worked in project-based organizations so that they have knowledge about the projects and project environments as well as requirements of successful projects. It was made sure before distributing the questionnaires that the individuals have worked in project-based organization and has knowledge about the basics of a project. After this, a self-administered paper and pencil survey was conducted where employees and managers were given questionnaires by hand to be filled on spot. 300 questionnaires were distributed however only 250 were useful as rest were discarded as they contained some missing information or invalid one. Data was collected in English language as the questionnaires were in English and it was made sure that the individuals were able to understand the terms. The surety of confidentiality of information was given to the respondents which was also fulfilled. Online survey method was not used as self-administration was kept in mind.

3.6 Instrumentation

3.6.1 Measures

The questionnaire consisted of two parts and there were two types of questionnaires. First part entailed demographics including age, gender, qualification, experience and income. The second part comprised of questions about all the fur variables i.e. entrepreneurial leadership, innovation ambidexterity, creativity in projects and collaborative culture. One type of questionnaire was to be filled by employee/ project team member who was asked about the leader and his entrepreneurial traits, the culture of organization and the innovative ambidexterity practiced in the organization. The other type of questionnaire was to be filled by the leader who had to expose about the creativity level of his employees which causes creativity in projects. The questionnaire was developed by adopting items from different sources. The respondents had to answer using the 5-point Likert scale which ranged from 1=strongly disagree to 5= strongly agree. All the scales were passed by running reliability test on them.

3.6.1.1 Entrepreneurial Leadership

The scale for entrepreneurial leadership consisted of 6 items, adapted from the questionnaire of Gopal, Anandvisam & Sanjay, (2010). The items included the information about the leader characteristics, like whether he is intuitive and insightful, if he forecasts events, is energetic and take actions on entrepreneurial activities. The respondents showed their intensity of agreeableness by marking the respective options from 1 to 5. Where 1 depicted strongly disagreed and 5 showed strongly agreed.

3.6.1.2 Innovation Ambidexterity

The questionnaire of innovation ambidexterity consisted of 11 items. These included questions related to the exploitative as well as explorative ambidexterity. The scale had items that explored the abilities of an organization to adapt changes

for existing products and developing new products. The scale adopted was originally developed by Pedro, Simona & Isabel, (2018). The 5-point Likert scale used showed strongly disagree for 1 and strongly agree for 5.

3.6.1.3 Creativity in Projects

To measure creativity in projects, a scale developed by Zhou, J., & Oldham, G. R. (2001), was adopted. It had 13 items. The items explored whether the employees give suggestions and ideas for new ways of achieving goals. Their approach towards the problems and the way they solve it. Do they come up with novel ideas or not? and other questions like these. This part of the questionnaire was to be filled by the leader or manager who showed his agreeableness or disagreement by choosing among the 5 options.

3.6.1.4 Collaborative Culture

The scale developed by de Luque et al., (2008), was adopted to measure collaborative culture. This scale consisted of 3 items. Which inquired how supportive and helpful the team members within the organization are. Also asked how frequently and easily they shared responsibilities as well as the extent of interaction among groups.

Table 3.7: Instruments

No.	Variable	Source	Items
1	Entrepreneurial Leadership	Gopal et al., 2010	06
2	Innovation Ambidexterity	Pedro et al., 2018	11
3	Creativity in Projects	Zhou et al., 2001	13
4	Collaborative Culture	de Luque et al., 2008	03

3.7 Statistical Tool

For studying the relationship between entrepreneurial leadership which is the independent variable and creativity in projects which is the dependent variable single

linear regression is performed. In research Regression analysis studies, the impact of different factors on the dependent variable. Regression analysis results show that whether the literature about the variables and their relationship is supporting the acceptance or rejection of the proposed hypothesis. After that, for further mediation and moderation analysis Preacher and Hayes (2013) methods were utilized. Preacher and Hayes provides different models for mediation and moderation analysis. For mediation analysis model 4 is used whereas for moderation analysis model 1 is used. The method of moderation and mediation have to be performed separately. However, both involve three steps. In the first step, the dependent variable is put in outcome column i.e. creativity in projects. Independent variable i.e. entrepreneurial leadership is put in IV column. After that covariant column allows the researcher to put all the demographics.

For testing the measurement model IBM AMOS has been utilized. The models were analyzed through fit statistics which include different indices RMSEA, GFI, CFI and AGFI. RMSEA analyze model goodness with population covariance matrix. Threshold values of RMSEA vary according to different authors. According to MacCallum, Browne, and Sugawara (1996) value equal to 0.10 or below is acceptable. Whereas, according to Schumacker and Lomax (2012) value less than 0.05 is considered as best model fit. The acceptable range of CFI is 0-1 where values that are close to 1 represents good model fit and values which is below 0.90 is considered poor model fit whereas, value above 0.90 is acceptable. GFI acceptable range also lies between 0 to 1 where value below 0.80 is considered poor model fit and value above 0.80 is acceptable. Similarly, the AGFI values acceptable range is 0-1. values should be almost close to 1 for good model fit. Just like AGFI value below 0.80 is considered poor model fit and above 0.80 is acceptable.

3.7.1 Measurement Model

CFA (Confirmatory factor analysis) method is used to examine the measurement model, the model consists of four latent variables: entrepreneurial leadership, collaborative culture, innovation ambidexterity and creativity in projects. Different

fit indices combination was used to assess the model fit which includes RMSEA, TLI, CFI, chi-square model and IFI.

3.7.2 Confirmatory Factor Analysis for each Latent Variable

3.7.2.1 Entrepreneurial Leadership

Entrepreneurial leadership is the independent variable of the study was coded as EL that contains 6 items in the scale. The factor loading of this scale was EL1 = 0.81, EL2 = 1.17, EL3 = 0.78, EL4= 0.84, EL5= 1.00 and EL6= 1.00. The results of entrepreneurial leadership are favorable and there is no need to delete any item because the values are on acceptable criteria, for example, GFI =0.902, AGFI = 0.875, and RMSEA = 0.031, CFI=0.921.

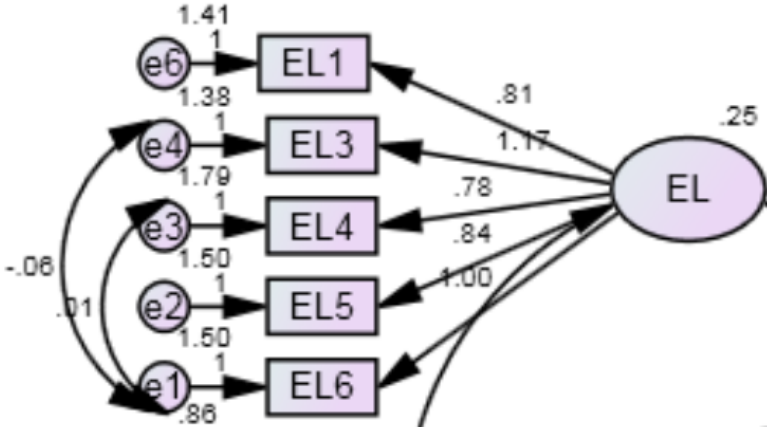

FIGURE 3.1: CFA for Entrepreneurial Leadership

3.7.2.2 Innovation Ambidexterity

Technological learning the mediating variable of the study was coded as TL that consists of 11 items in the scale. The factor loading of this scale was IA1= 0.173, IA2=0.83, IA3=0.84, IA4=1.21, IA5=0.91, IA6= 0.67, IA7= 0.95, IA9=0.94, IA10= 1.16, IA11= 1.18. The results of Innovation ambidexterity are favorable

and there is no need to delete any item because the values are on acceptable criteria, for example, GFI = 0.902, AGFI = 0.875, CFI = 0.921 and RMSEA = 0.031.

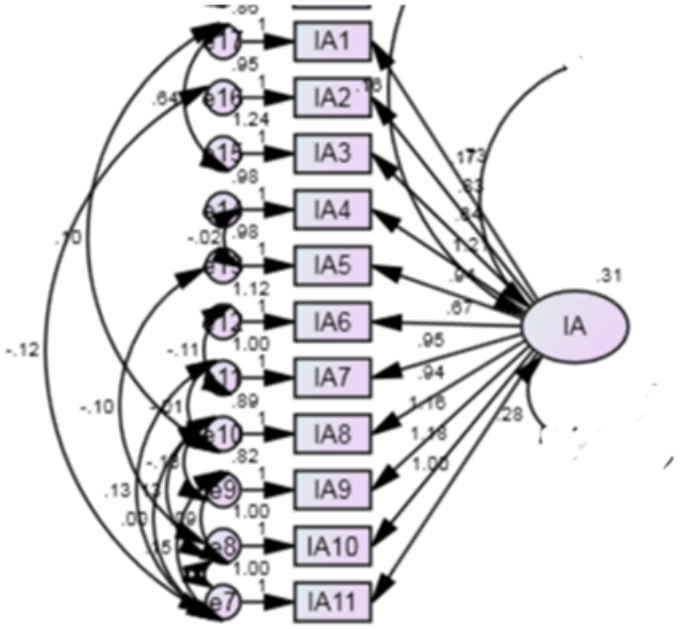

FIGURE 3.2: CFA for Innovation Ambidexterity

3.7.2.3 Creativity in Projects

Creativity in projects the dependent variable of the study was coded as cre that consists of 13 items in the scale. The factor loading of this scale was cre1= 1.62, cre2= 1.32, cre3=1.73, cre4= 1.71, cre5= 1.64, cre6= 1.49, cre7=1.58, cre8= 0.70, cre9= 1.58, cre10= 1.59, cre12= 1.81 and cre13= 1.38. The results of project performance are favorable and there is no need to delete any item because the values are on acceptable criteria, for example, GFI = 0.902, AGFI = 0.875, CFI = 0.921 and RMSEA = 0.031.

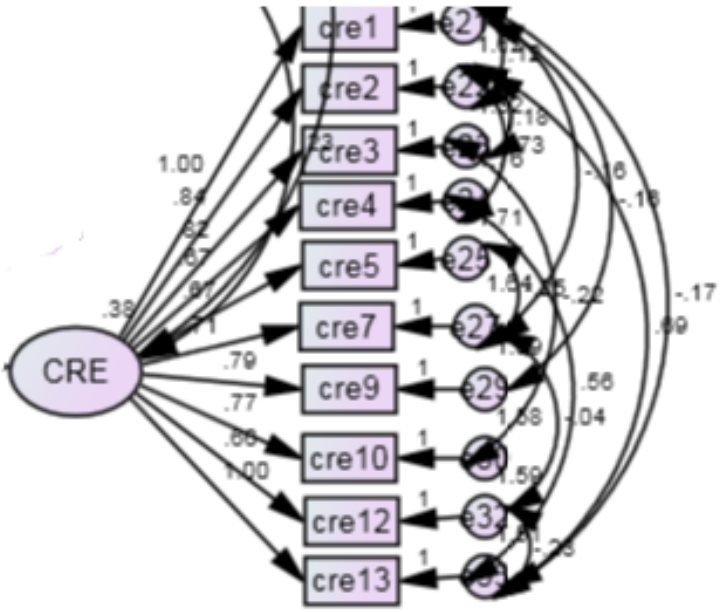

FIGURE 3.3: CFA for Creativity in Projects

3.7.2.4 Collaborative Culture

Project culture the moderating variable of the study was coded as CC that consists of 3 items in the scale. The factor loading of this scale was CC1= 1.58, CC2= 1.38 and CC3= 1.57. The results of project culture are favorable and there is no need to delete any item because the values are on acceptable criteria, for example, GFI = 0.902, AGFI = 0.875, CFI = 0.921 and RMSEA = 0.031.

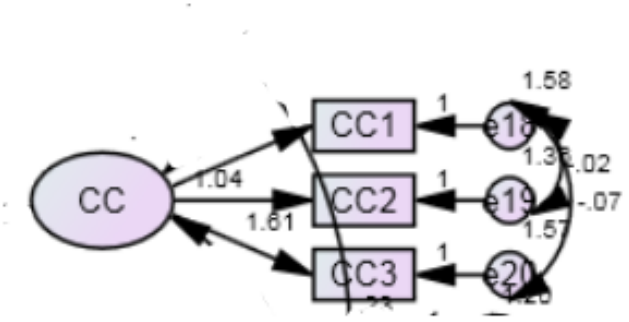

FIGURE 3.4: CFA for Collaborative Culture

3.7.3 Confirmatory Factor Analysis for all Latent Variables

The measurement model showed promising results as IFI = 0.926; TLI =0.906; CFI = 0.921; RMSEA = 0.031 which is shown in table 3.8. CFA results of the four-factor model had shown reliable results. The factor loadings values of the variables show that they were perfectly loaded. 0.05 is the ideal criteria for testing by Thompson (2000) for RMSEA and the value below 0.05 is considered best fit. Therefore, the value of RAMSEA as 0.031 is accurate.

Table 3.8: Measurement Model

Model	Factors	$\mathcal{X}2$	Df	RMSEA	IFI	TLI	CFI
Baseline hypothesized model	Four factors	422.829	341	0.031	0.926	0.906	0.921

3.8 Pilot Testing

For avoiding risks, time and resource wastage pilot testing is considered as an effective and proactive approach. Almost 30 questionnaires were used to conduct pilot testing. Which help to confirm that if the outcomes of the study are similar to the proposed hypothesis or not. Results of pilot testing have confirmed that the scales of the present study are reliable and there is no significant issue in the variables.

3.9 Reliability Analysis of Scales

Reliability analysis is such a method in which when an item or scale is tested over a number of times it gives same consistent outcomes over and over again. Reliability of the scale means that the scale has the ability to give consistent outcomes over and over again when it is tested many times. In this study, reliability is tested

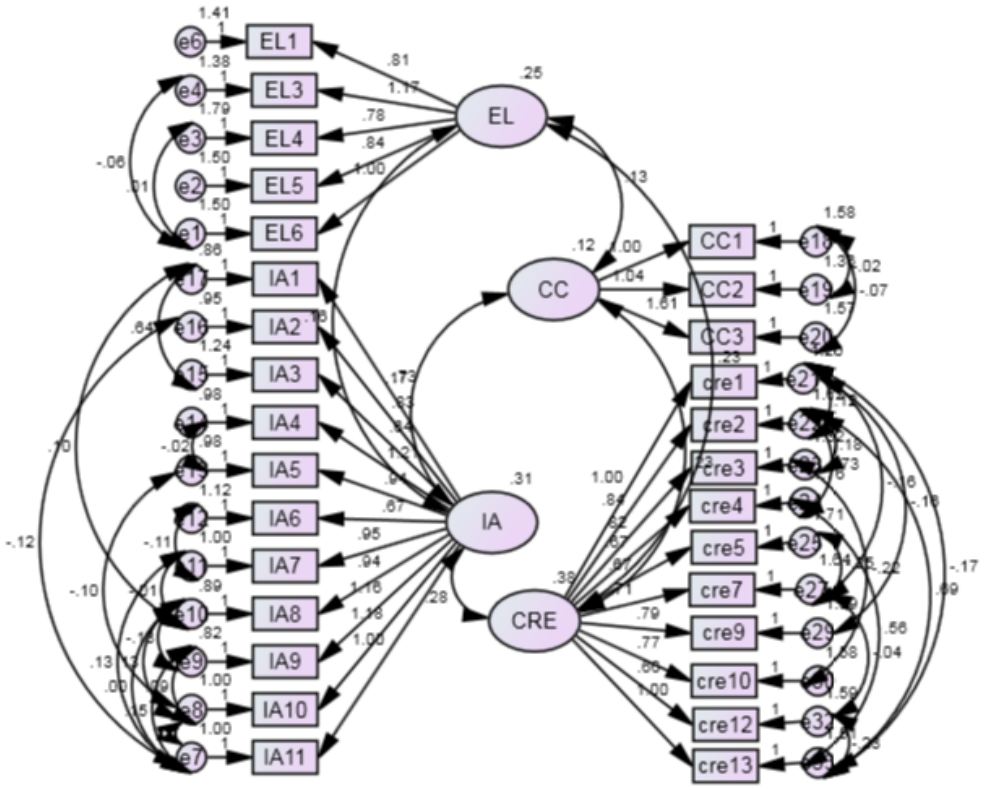

FIGURE 3.5: 5 CFA for Complete Model

through Cronbach alpha. Which shows the reliability of a single construct and variable's internal reliability as well as link between those variables. The range of Cronbach alpha is 0 to 1. The smaller value represents smaller reliability, whereas, the higher value represents higher reliability. In this study, while measuring a selected set of construct Cronbach alpha value above 0.7 is considered as reliable whereas, below 0.7 is considered as less reliable.

TABLE 3.9: Values of Cronbach's Alpha

Variables	Cronbachs Alpha	Items
Entrepreneurial Leadership	0.774	6
Innovation Ambidexterity	0.849	11
Creativity in Projects	0.803	13
Collaborative Culture	0.767	3

3.10 Data Analysis Technique

The data was collected in the first stage and SPSS version 20 was used for examination of data. The following steps were followed for the testing of results which is part of the complete procedure:

1. Firstly, correctly responded questionnaires were collected from the sample.
2. After the collection of questionnaires, the data including variables, demographics and the items was coded.
3. Frequency tables explained the characteristics of the sample used.
4. Descriptive statistics was done by using numerical values of the variables.
5. Cronbach Alpha was used to perform reliability test.
6. CFA (Confirmatory Factor Analysis) was done to check the measurement model.
7. Correlation analysis was done to highlight the relationship between the variables.
8. After that, to determine the proposed relationship between independent variable entrepreneurial leadership and dependent variable creativity in projects single linear regression analysis was performed.
9. Preacher and Hayes process was used in order to conduct moderation analysis by using model 1.
10. To test the acceptance and rejection of proposed hypothesis correlation and Preacher and Hayes methods were used.

Chapter 4

Results

4.1 Correlation Analysis

Correlation analysis validate the association among various variables. The aim of correlation analysis in this study is to check the liaison between entrepreneurial leadership and creativity in projects, the mediating role of innovation ambidexterity and moderating role of collaborative culture. This analysis will tell about the strength and weakness of the relationship. The results depend on the value of correlation. If the value is 0, it shows there is no relationship among the variables. Whereas, any value away from 0 demonstrates a positive or negative relation. The negative and positive signs can be analyzed for understanding the nature of relationship. A positive sign indicates a direct relation where one variable increase to increase the other variable. While, the negative sign depicts an indirect relation which means an increase in one variable would cause decrease in the other.

Entrepreneurial leadership has a mean 3.9033, and standard deviation of 0.5286. the mean value of Creativity in projects is 3.8135 whereas the standard deviation is 0.6023. Similarly, the mean and standard deviation of Innovation Ambidexterity is 3.8498 and 0.5905 respectively. The mean of Collaborative Culture, acting as moderator, is reported to be 4.0027, while the standard deviation is 0.6330.

The values in the correlation table 4.1 shows that there is a positive and significant relation between the variables. Analyzing the values one by one, we can

TABLE 4.1: Means, Standard Deviation, Correlation

S. No.	Variables	Mean	SD	1	2	3	4
1	**Entrepreneurial Leadership**	3.9033	0.5286	1			
2	**Innovation Ambidexterity**	3.8498	0.5905	0.499**	1		
3	**Collaborative Culture**	4.0027	0.6330	0.648**	0.723**	1	
4	**Creativity in Projects**	3.8135	0.6023	0.555**	0.588**	0.698**	1

**Correlation is Significant at the 0.01 level (2-tailed). N=250

see that entrepreneurial leadership and Creativity has a value of $r = 0.555^{**}$, at $p < 0.01$. Innovation ambidexterity also has positive relation with entrepreneurial leadership with $r = 0.499^{**}$ at $p < 0.01$. Similarly, there is positive relation of Entrepreneurial leadership and Collaborative culture as $r = 0.648^{**}$ and $p < 0.01$. Innovation ambidexterity and Creativity is also positively and strongly associated as r=0.588 at $p < 0.01$. The value of r for Collaborative culture and Creativity in projects is 0.698 which shows they are positively associated. Lastly, the relation of Collaborative Culture and Innovation Ambidexterity is also positive and significant as $r = 0.723$ at $p < 0.01$.

4.2 Regression Analysis

Correlation analysis depicts the presence of relationship between the variables but does not show the causality of the relation. We have gone through correlation analysis to acknowledge the existence of relationship between the variables. But this is not adequate for the research purpose, therefore regression analysis is the need. Regression analysis authenticate the extent to which one variable is related to another. It validates the dependence of variables on each other.

For regression analysis of moderating and mediating variables Preacher and Hayes (2013) method of regression analysis was used. Mediation analysis was performed

to check the mediating impact of Innovation Ambidexterity. Whereas, model 1 of preacher and Hayes (2013) is performed to check the moderating effect of collaborative culture on Entrepreneurial Leadership and Creativity in Projects.

TABLE 4.2: The Mediating Effect of Innovation Ambidexterity

		β	se	t	p
Entrepreneurial Leadership→	**Creativity in Projects**	0.3915	0.06	6.23	0.000
Entrepreneurial Leadership→	**Innovation Ambidexterity**	0.547	0.06	8.920	0.000
Innovation Ambidexterity→	**Creativity in Projects**	0.418	0.05	7.37	0.000
	LLCI	**ULCI**			
	0.2677	**0.5153**			

The table 4.2 confirms the mediation of Innovation Ambidexterity. H1: Entrepreneurial Leadership is positively and significantly associated with Creativity in Projects is accepted ($\beta = .3915, t = 6.23, p = 0.000$). Similarly, H2: Entrepreneurial Leadership is positively and significantly associated with Innovation Ambidexterity is accepted ($\beta = 0.547, t = 8.920, p = 0.000$). H3: Innovation Ambidexterity is positively and significantly associated with Creativity in projects is also accepted ($\beta = 0.418, t = 7.37, p = 0.000$).

TABLE 4.3: Moderating effect of collaborative culture

		β	se	t	p
Int term →	**Collaborative culture**	-0.09	0.04	-2.24	0.02

The table 4.3 shows that collaborative culture does not act as a moderator between entrepreneurial leadership and creativity in projects based on unstandardized regression analysis ($\beta = -0.09$ and $t = -2.24$). Hence, H5: collaborative

culture moderates the relation between entrepreneurial leadership and creativity in projects such that it strengthens the relationship, is not accepted.

4.3 Summary of Accepted/ Rejected Hypothesis

Table 4.4: Summarized result of hypothesis

Hypothesis Statements	**Results**
H1: There is a positive relationship between entrepreneurial leadership and creativity in projects.	**Accepted**
H2: There is positive relationship between entrepreneurial leadership and innovation ambidexterity.	**Accepted**
H3: There is a positive relationship between innovation ambidexterity and creativity in projects.	**Accepted**
H4: Innovation ambidexterity mediates the relationship between entrepreneurial leadership and creativity in projects.	**Accepted**
H5: Collaborative culture moderates the relation between entrepreneurial leadership and creativity in projects such that in strengthens the relationship.	**Rejected**

Chapter 5

Discussion and Conclusion

5.1 Discussion

The emphasis of this research was to determine the factors that cause creativity in projects. Hence entrepreneurial leadership was taken as an independent variable to analyze its effect on creativity. Also, the aim was to study collaborative culture as a moderator and to see the role of innovation ambidexterity as a mediator.

The results of the research show that Entrepreneurial leadership has a positive impact on Creativity in projects. Which means if a leader has entrepreneurial characteristics, it would increase the level of creativity in projects. Also, a positive relation between entrepreneurial leadership and innovation ambidexterity has been seen, which depicts that such a leader would create an environment that leads to innovation ambidexterity in organization. Similarly, innovation ambidexterity positively effects creativity in projects as such an environment will boost the employees capability to think out of the box and be creative for the projects. Hence, Innovation ambidexterity successfully mediates the relation of Entrepreneurial leadership and Creativity. Therefore, H1, H2, H3 and H4 are accepted. However, it turns out that collaborative culture, the moderator is not significant and is negatively influencing the relationship instead of positive influence as proposed by the hypothesis.

The detailed discussion on each of the hypothesis is below:

5.1.1 Hypothesis H1: Entrepreneurial Leadership is Positively and Significantly Associated with Creativity in Projects

Hypothesis 1 predicted that entrepreneurial leadership is positively associated with creativity in projects. As seen in the results, ($\beta = 0.39$ and $p = 0.000$) it is proven that entrepreneurial leadership is positively associated with creativity in projects. The value of $\beta = 0.39$ shows that for one-unit change in entrepreneurial leadership there will be 39% increase in creativity in projects.

Literature also supports the results. Zampetakis and Moustakis (2006), supports the notion that there is a link between entrepreneurship and creativity while the brains that are trained to be creative tend to become good entrepreneurial leaders. Similarly, according to Van Zyl and Mathur-Helm (2007), entrepreneurial leadership is a blend of entrepreneurship and leadership. This blend then works the best to carve out creativity in his team. Amabile (1997), also confirmed the effect of entrepreneurs on creativity and proposed that creativity, the creation of novel and new ideas, need a combination of motivation and skills to come into force.

Literature suggests that the entrepreneurial leadership has the ability of risk taking and getting involved in the ventures that have uncertain results. Also, such leaders motivate the team members to take a step, to share their ideas conveniently and encourage creativity. Swiercz and Lydon (2002), says that many of the projects do not get successful because they lack the exact needed leadership, therefore, it is very important to have an entrepreneurial CEO.

Similarly, in the Pakistani context, it is very important for the project-based organization to develop appropriate leadership that can lead to creative projects. An entrepreneurial leader has the traits of being supportive towards the innovative ideas, he encourages the members to take steps that lead to a new direction. He has the ability to visualize the consequences of the steps taken and makes sure right steps are taken at the right time. Such a leader also is a potential risk taker thus, he is the one who becomes the source of creativity in projects.

Entrepreneurial leadership is able to take risks and get involved in the new tours of uncertainty. These leaders have the ability to get motivated and also motivate the team members in return to get started and move forward to share the novel thoughts. This is possible only when leaders have the required leadership skills that match with the requirement of the time. This study was novel because it proposed the entrepreneurial leadership as a type of leadership that has all the traits of a normal leader and a bonus of certain capabilities that add up to produce more positive, effective and creative results.

Also, in Pakistani context it is very important to have an effective leadership style that the managers can follow and adopt hence getting a path way to rely on. The managers in this way would know the exact worth of their projects and would think out of the box to induce creativity in the projects and manage the teams well in this regard.

5.1.2 Hypothesis H2: Entrepreneurial Leadership is Positively and Significantly Associated with Innovation Ambidexterity

Hypothesis 2 assumed that entrepreneurial leadership is positively and significantly associated with innovation ambidexterity and the results of this hypothesis also confirm the presence of such relationship between the two variables where $\beta = 0.56$ and $p = 0.000$. It shows that with one-unit change in entrepreneurial leadership, there comes 56% change in innovation ambidexterity.

Literature also agrees with the proposed hypothesis that leadership puts a positive impact on innovation ambidexterity. Bel (2010) also agrees to the statement saying the leaders of the great organizations like Google and Apple are successful because they have this ability to infuse an environment of innovation within the organization instead of on individual level. Similarly, Stoker, Looise, Fisscher and Jong (2001), stated that teams perform better when their leaders focus on their competence development and innovative abilities. Entrepreneurial type of leadership is the one which itself focuses on creativity, generation of new ideas, taking

risky initiatives and hence such leaders are the best for developing innovation ambidexterity in an organization. Studies have shown that it depends on the leaders abilities to carve out his teams ableness. Barsh, Capozzi and Davidson (2008), argues that although most of the leaders agree that innovation is critical factor is successful organization development, but only a few can actually create such a culture for their organizations. Hence there is a need of such a leadership style which can motivate its employees and team to develop the attitude of explorative and exploitative innovation.

Based on these studies and after personally questioning the leaders of project-based organizations, it is proved that those leaders who implement entrepreneurial style of leadership, develop the environment of innovation ambidexterity in the organization. Such leaders focus both on exploitative and explorative innovation.With the acceptance of this hypothesis that entrepreneurial leadership is positively and significantly associated with innovation ambidexterity, the importance of entrepreneurial leadership is increased. Therefore, it is accepted that project-based organizations need entrepreneurial leadership skills to develop innovation ambidexterity.

It is proved that entrepreneurial leadership has a positive and significant relation with innovation ambidexterity. Innovation ambidexterity means both explorative and exploitative innovation in an organization. This shows that an entrepreneurial leader would produce such an environment that will cater to the needs of newness and novelty in the projects and it will explore not only new ideas and ways but also exploit the already existing resources. This also proves the need for Pakistani entrepreneurs to act like leaders and not only take risks individually but also as a team work on new and out of the box ideas for the projects. In this way great leaders will be able to produce great projects which will enhance creativity and ambidexterity.

5.1.3 Hypothesis H3: Innovation Ambidexterity is Positively and Significantly Associated with Creativity in Projects

Hypothesis 3 proposed that innovation ambidexterity is positively and significantly associated with creativity in projects. Results are in the favor of this hypothesis $\beta = 0.41$ and $p = 0.000$. The β coefficient shows that with a single unit change in innovation ambidexterity, there comes 41% change in creativity in projects.

Studies have also shown a relationship between these two variables and report that innovation ambidexterity increases the creativity in the projects. As Bruton (2011), states, before creative solution to the problem, there is one important step that is detection of the existing and unexplored problems. This refers to the explorative and exploitative innovation approach which is very important for creativity. Alves, Marques, Saur and Marques (2007), defines the link as creativity to be the generation of new ideas and innovation to be the implementation of those unique ideas. When such an environment is developed where the unique ideas are thought upon and implemented, innovation ambidexterity takes place, hence leading the project towards creativity.

The organizations need to engender new and renovate existing information (innovation ambidexterity), (Schmidt, Brinks, & Brinkhoff, 2014), for pervading creativity in projects. Innovation ambidexterity refers to the exploration of new ways to innovate as well as exploit the existing resources to find something different. In this way an innovative approach keeps track of all the possible ways of creativity and problem solving. Innovation ambidexterity hence leads to the creativity in projects. The teams in such organizations work for searching new ways to do a task, to solve a problem by first surveying the existing resources. This makes the employees join their hearts with heads and find creative solutions for the problems. The results of the study show that the project-based organizations should develop innovation ambidexterity to encourage creativity in projects.

5.1.4 Hypothesis H4: Innovation Ambidexterity Mediates the Relationship between Entrepreneurial Leadership and Creativity in Projects

Hypothesis 4 assumes that innovation ambidexterity mediates the relationship between entrepreneurial leadership and creativity in project. The results also depict positive and significant relation. The indirect effect of entrepreneurial leadership with creativity in projects through innovation ambidexterity has upper limit 0.267 and lower limit 0.525. There is no zero between these two values in the bootstrapped 95% confidence interval. Results approve that innovation ambidexterity is the mediator between entrepreneurial leadership and creativity in projects. Hence this hypothesis is accepted.

Entrepreneurial leadership is the encourager of creativity. As stated by Vigoda-Gadot, Shoham, Schwabsky and Ruvio (2008), the traits and vision of the leader play an important role in innovation. Organizations outlive the continuously changing environments through innovation ambidexterity (OReilly III & Tushman ,2008). Exploring new opportunities and exploiting present resources at the same time gives a competitive advantage to the organizations as this is not possible for all of them to implement the idea of innovation ambidexterity. He & Wong (2004), says that there should be a unique balance of both exploration and exploitation techniques. Therefore, in this way, innovation ambidexterity helps the entrepreneurial leadership to implement the creativity in projects.

Hence it is evident from the results that the hypothesis stands true. The leaders of project-based organizations in Pakistan should use the technique of innovation ambidexterity so that the leaders can effectively ensure creativity.

5.1.5 Hypothesis H5: Collaborative Culture acts as a Moderator between Entrepreneurial Leadership and Creativity in Projects, such that it Strengthens the Relationship

Hypothesis 5 proposed that collaborative culture acts as a moderator between entrepreneurial leadership and creativity in projects, such that it strengthens the relationship. However, the results depict that collaborative culture does not moderate the relation of entrepreneurial leadership and creativity in projects, as the value of unstandardized regression analysis ($\beta = -0.09, t = -2.24$ and $p = 0.02$). β coefficient shows that for every one-unit change in collaborative culture, it will bring -9% change in the relationship between entrepreneurial leadership and creativity in projects. Hence, the hypothesis that collaborative culture acts as a moderator between entrepreneurial leadership and creativity in projects such that it strengthens the relationship, is rejected.

However, previous researchers believe that collaborative culture effects the projects positively and keeping this in view, it was proposed that collaborative culture acts as a booster for entrepreneurial leaders and the project creativity. As stated by Barczak, Lassk and Mulki (2010), collaborative culture gives way to mutual trust and understanding which leads the team to project success. Similarly, Mueller (2015), explained that team members come from different cultures and setting so there is always need of a collaborative culture for them in the project-based organizations. Such studies showed that collaborative culture should be a major part of project-based organizations.

Conversely, the proposed hypothesis is rejected which may have certain reasons. Firstly, in project-based organizations collaborative culture helps because the team shows cohesive behavior, they agree to each other and work with the same mindset. Whereas, this research talks about creativity in projects which needs out of the box ideas. In such case, the unified mindsets of the team members would be of no benefit. Team diversity would be helpful in generating contrasting ideas.

Secondly, as some theorists suggest, collaborative culture contributes to knowledge sharing among employees (Chow, 2012), which may affect their ability to disagree with each other. Too much collaboration can cause the employees to approve every point of others, impeding their chances to think on their own and show creativity. Because as theorists say, for a creative outcome, a little constructive conflict is also important. A collaborative culture develops too much trust among members, this restricts them from questioning or raising arguments. Without disagreements there can be no change in the status quo, causing no creativity.

Hence, it is concluded that collaborative culture is not a moderator for the relationship of entrepreneurial leadership and creativity in projects.

5.2 Research Implications

5.2.1 Practical and Theoretical Implication

This research has made important theoretical and practical contributions as there is no previous study that has examined the impact of entrepreneurial leadership on creativity in projects in the Pakistani context. The findings of this research are practically significant as they depict the importance of a leadership style that helps in improving the creativity level of the project-based organizations specially for the countries like Pakistan where there is lack of creativity and innovation. It has been proved that innovation ambidexterity acts as a mediator between entrepreneurial leadership and creativity in projects. Innovation ambidexterity hence is another vital factor that the organizations need to pay heed to. The findings of this research have confirmed that if the leader show entrepreneurial characteristics, it leads the organization towards innovation ambidexterity making it expert in both exploitative as well as explorative innovation.

In project-based organizations, project manager should act as an entrepreneurial leader so that he can encourage an environment of creativity and innovation within the organization that will help in the uniqueness and novelty of the projects.

During the project development phase, the leader can emphasize on such activities which will enhance the thinking capabilities of the team members. An entrepreneurial leader is a risk taker and would hence listen to the unique ideas of his team also, he would embolden them to take a step no matter what the consequences might be. This is the process by which the projects become creative.

The organizations should have such mechanisms which boost the employee knowledge about existing products and resources as well as inspire him to use his abilities in discovering new ways of achieving innovation and implementing ideas. Entrepreneurial leadership enable his organization to be an effective innovation ambidextrous workplace which in turn encourages the team members to think out of the box and thus be the cause of creativity in projects.

5.3 Limitations of Research

Due to the limited time and resources, there are some limitations of this research. The sample is medium sized and may not be big enough because this study only focuses on the project-based organizations in Pakistan. Therefore, the model under research is only tested in Pakistani organizations. Results would have showed different figures if some other context was involved too. Meanwhile two types of questionnaires were developed, one for the project leaders and the other type for the project team members, where it was quite a challenge to collect authentic data from project team members who are mostly reluctant to reveal anything about their leaders.

The results of the research did not come exactly the same as expected after reviewing the literature. Reason of this result can be a different cultural context; therefore, it is not recommended to apply these results outside Pakistani context.

5.4 Future Research Directions

This study focuses on the impact of Entrepreneurial leadership on Creativity in projects. The main target of the study were project-based organizations. The

future studies can be conducted in the non-Pakistani context. The same model can also be used for research in other private and public organizations using larger sample size. Entrepreneurial leadership is still not much explored and its impact on other variables like project complexity can be studied in future.

This study has used collaborative culture as a moderator between entrepreneurial leadership and creativity in projects. However, other moderators can be used to see the effect on the same model. Future researchers can also analyze the moderator collaborative culture in detail in some different domain of project management as it was rejected as per this model.

5.5 Conclusion

This study attempted to examine the effect of entrepreneurial leadership on creativity in projects in the Pakistani context. Data was collected from project-based organizations in Pakistan using questionnaires to study the impact of entrepreneurial leadership on creativity in projects with the mediating role of innovation ambidexterity and collaborative culture as a moderator. For this purpose, 300 questionnaires were distributed out of which 250 were useful having complete information to study the model. Statistical tests showed that the reliability and validity of the framework was acceptable. The proposed hypothesis was also supported by the componential theory of creativity which suggest that creativity is the outcome of expertise, creative thinking and motivation.

However, the hypothesis that collaborative culture moderates the relation between entrepreneurial leadership and creativity in project-based organizations of Pakistan, is rejected. Maybe due to the fact that the more united or collaborative the environment is, the less is the ability to think differently and present new ideas.

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Appendix-A

Questionnaire for Leader

Dear Respondent,

My name is Azka Tariq. As an MS research scholar at Capital University of Science & Technology (CUST), Islamabad, I am collecting data for my thesis. I assure you that data collected from you will be strictly kept confidential and will only be used for academic purposes.

Thanks a lot for your help and support!

Section 1: Demographics

Gender:	1- Male 2- Female
Age:	1 (18-25), 2 (26-33), 3 (34-41), 4 (42-49), 5 (50/Above)
Qualification:	1 (Matric), 2 (Inter), 3 (Bachelors), 4 (Masters), 5 (MS), 6 (PhD)
Experience:	1 (0-5), 2 (6-10), 3 (11-15), 4 (16-20), 5 (21-25), 6 (26/Above)
Income:	1(25-50K), 2(50-75K), 3(75-100K), 4(100K/Above)

Section 2: Creativity

The following statements concern with **Creativity**. For each item, please indicate the extent of your agreement or disagreement by ticking the appropriate number. Strongly disagree: 1, Disagree: 2, Neutral: 3, Agree: 4, Strongly agree: 5

This employee:

1	Suggests new ways to achieve goals or objectives.	1	2	3	4	5
2	Comes up with new and practical ideas to improve performance.	1	2	3	4	5
3	Searches out new technologies, processes, techniques, and/or product ideas.	1	2	3	4	5
4	Suggests new ways to increase quality.	1	2	3	4	5
5	Is a good source of creative ideas.	1	2	3	4	5
6	Is not afraid to take risks.	1	2	3	4	5
7	Promotes and champions ideas to others.	1	2	3	4	5
8	Exhibits creativity on the job when given the opportunity to.	1	2	3	4	5
9	Develops adequate plans and schedules for the implementation of new ideas.	1	2	3	4	5
10	Often has new and innovative ideas.	1	2	3	4	5
11	Comes up with creative solutions to problems.	1	2	3	4	5
12	Often has a fresh approach to problems.	1	2	3	4	5
13	Suggests new ways of performing work tasks.	1	2	3	4	5

Questionnaire for Employees

Dear Respondent,

My name is Azka Tariq. As an MS research scholar at Capital University of Science & Technology (CUST), Islamabad, I am collecting data for my thesis. I assure you that data collected from you will be strictly kept confidential and will only be used for academic purposes.

Thanks a lot for your help and support!

Section 1: Demographics

Gender:	1- Male 2- Female
Age:	1 (18-25), 2 (26-33), 3 (34-41), 4 (42-49), 5 (50/Above)
Qualification:	1 (Matric), 2 (Inter), 3 (Bachelors), 4 (Masters), 5 (MS), 6 (PhD)
Experience:	1 (0-5), 2 (6-10), 3 (11-15), 4 (16-20), 5 (21-25), 6 (26/Above)
Income:	1(25-50K), 2(50-75K), 3(75-100K), 4(100K/Above)

Section 2: Entrepreneurial Leadership

The following statements concern with **Entrepreneurial Leadership**. For each item, please indicate the extent of your agreement or disagreement by ticking the appropriate number.

Strongly disagree: 1, Disagree: 2, Neutral: 3, Agree: 4, Strongly agree: 5

My leader:

1	Anticipates; attempts to forecast events; considers what will happen in the future.	1	2	3	4	5
2	Is highly involved; energetic; enthused; motivated towards entrepreneurial activities.	1	2	3	4	5
3	Makes plans and takes actions based on future goals.	1	2	3	4	5
4	Is knowledgeable; is aware of information on new entrepreneurial activities.	1	2	3	4	5
5	Has a clear understanding of where we are going from entrepreneurial activities.	1	2	3	4	5
6	Has good intuition; is insightful.	1	2	3	4	5