

# Impact of Entrepreneurial Leadership on Project Success: Innovative Ambidexterity Mediation & Collaborative Culture Moderation

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## Abstract

In project-based organizations, a good leadership style is acknowledged as a critical source of fostering creativity. On the other hand, existing research fails to demonstrate how leadership fosters project creativity through ambidextrous innovation empirically. The core objective of this research is to explore the impact of entrepreneurial leadership on project success by considering the mediation of innovation ambidexterity with moderation of collaborative culture between entrepreneurial leadership.

Data were obtained from 274 respondents from project-based organizations, mainly from the telecom sector in Pakistan, including PTCL, Ufone, Mobilink, HUAWEI, and NOKIA. The results revealed that entrepreneurial leadership has a significant and positive influence on project success. We also discovered that entrepreneurial leadership has a solid and positive impact on innovation ambidexterity and that innovation ambidexterity has a positive and significant impact on project success. Entrepreneurial leaders take risks and foster innovation, which leads to greater creativity in projects because of their ambidextrous approach to problem-solving. We further found that innovation ambidexterity mediates the relationship between entrepreneurial leadership and project success. The association between entrepreneurial leadership and project success is moderated by collaborative culture, with the relationship being higher when collaborative culture is high. The research makes a substantial contribution to the field of project management research. The consequences for project managers and future research are highlighted in the conclusion.

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

## - Background of the study

Leadership is a dynamic process that involves all the processes from setting a specific objective to encouraging and helping others in achieving that goal (Frankel & PGCMS, 2019). It is a soft talent that does not teach what to think but clearly edifies the way to think in a particular scenario (Feldman, 2018). Over the past 15 years, a number of leadership theories have arisen, including charismatic, transformative, visionary and inspiring, focusing on the leader's outstanding skills (Katz, Eilam-Shamir, Kark & Berson, 2018). According to the study conducted by Cáceres (2019), there is no single leadership style that can be declared as best suited for all scenarios; a leader's performance depends on the ability to adjust a leadership style to the time requirement. Leadership style is very important in project management and can lead to greater productivity and sustainability (Tabbassi, Argyropoulou, Roufechaei & Argyropoulou, 2016). Projects require an effective leadership style, because the limited time nature and various team members make them less engaged and motivated, leading to mismanagement, conviction and miscommunication (Zhang, Cao & Wang, 2018). Project leadership is a combination of management and leadership, where as a manager the focus is on attaining goals and as a leader the emphasis is on instigating, guiding and directing (Pretorius, Steyn, Bon-Bernard 2018).

There are too many hazards and ambiguities in today's business climate for anyone to operate and take risks to effectively allocate resources in an uncertain environment (Weissbrod, 2019). It is much easier to start a business in today's world of internet and connectivity, yet according to Yang, Pu, and Guan (2019), the typical business only lasts 2.9 years. These issues are a result of the organization's internal and external obstacles, such as the need for high performance, synchronization of client

requirements, and a high level of service satisfaction with limited resources (Miao, Newman, Schwarz, & Cooper, 2018).

Long-term viability of a business depends on having a competitive advantage (one that is difficult to copy by competitors), which can be gained through a creative way of thinking (Arzubiaga & Alamo, 2019). Many people believe that entrepreneurial leadership (EL) is extremely important for corporate success (Ramsgaard & Warren, 2015). According to Zainol, Ximenes et al., (2018), Entrepreneurial leadership arose from the combination of entrepreneur and leadership, providing a competitive advantage to the firm when used flawlessly. Entrepreneurial leadership establishes distinct goals for firms that are imaginative and creative, as well as a willingness to take risks (Cai, Lysova, Khapova & Bossink, 2018).

The ability of a leader to find solutions to complicated difficulties is dependent on his or her ability to sort out situations and deal with issues, which is only achievable when such talents are present in the leader, allowing him or her to effectively complete organizational projects (Mumford, Zaccaro, Harding, Jacobs & Fleishman, 2000). To be a leader, it is critical to have the skills that leaders demand for good results. These talents include not only problem-solving abilities, but also social and system-related abilities (Mumford, Marks, Connelly, Zaccaro & Reiter-Palmon, 2000). As a result, ideas and studies suggest that leadership traits are required of both managers and leaders if they want their teams to be effective and efficient.

There is a growing demand for creativity in today's age of innovation. Leaders and managers must understand how to generate innovation in their work and initiatives in order to attract and satisfy customers while also staying ahead of the competition. While numerous research projects have examined how entrepreneurship influences the development of new products and services in projects that serve a mediating function, almost no research has looked at how entrepreneurship influences the development of new products and services that serve both ends of the innovation spectrum. The failure of project managers to employ proper leadership abilities to achieve the desired output is the most serious issue they face. This study suggests that managers, supervisors, and leaders use entrepreneurial leadership to inject originality into their projects. In order to characterize the impact of entrepreneurial leadership on project originality, the role of innovation ambidexterity has still to be investigated. It is critical for managers to understand the mediating role that it plays in achieving creativity. Similarly, as a moderator for these variables, collaborative culture is under defined. As a result, this is a novel subject that has yet to be explored holistically, i.e. project creativity, entrepreneurial leadership, collaborative culture and innovation ambidexterity.

In today's economic world, when nothing important can be accomplished without taking chances, entrepreneurial leadership is a vital management style (Winkler, URen & Abraham, 2018). Renko et al., (2015) defined an entrepreneur as someone who effectively manages resources, motivates and guides followers, and is always on the lookout for new opportunities. In exchange, he develops other entrepreneurial leaders by instilling vision and ingenuity in them (Altantsetseg, Chen, & Chang, 2017). As a result, firms should promote an entrepreneurial culture (Levin, Thaichon, Quach, & Lobo, 2018) to encourage invention.

The focus of this research was as to how corporate leadership contributes to project success. The concept and insight (traits of an entrepreneurial leader), as proposed by Donaldson (2018) gives way to creativity. Creativity in business operations is vital to survive in the future (Ortmann & Sydow, 2018). Sozbilir (2018) states that innovation plays a good part in improving an organization's effectiveness. Project management is certainly a demanding task (Berg & Karlson, 2015), however the problem can be dealt with without crumbling with a creative, conscious and imaginative management. This study examines how effective it is in creating creative activity within a company in the form of entrepreneurial leadership. Leadership has a very significant relationship with the performance of a business, according to Mubarak and Noor (2018), and a major dimension that affects creativity and innovation. Creativity and new ideas are essential when it comes to addressing global demands, managing resources with tact and griping on an unknown future (Mubarak et al., 2018).

Collaboration methods can also be used by organizational leaders to encourage team to work in innovative atmosphere and be more innovative (Kahai, Sosik & Avoilio, 2003). Creativity is the job for the employees in generating original ideas and hence the leader is responsible for making the team as efficient as possible in order to aunt creativity in projects. In order to build a team and encourage innovation, the leader must develop a culture of sharing and information that collectively enables employees to think (Dong, Bartol, Zhang & Li, 2017). According to Chen (2007), an entrepreneurial leader cannot improve the creative capacities of a project by working alone; he needs people to collaborate and share his expertise. In a study covered by Shamir-Inbal, & Blau, (2016), collaborative culture has shown that it boosts learning and team abilities. Therefore, this study also focuses on collaborative culture during creativity study.

According to Kobarg, Stumpf-wollersheim, and Welp (2019), project innovation is of highest importance nowadays. However, in order to assure effective creativity, organizations and

contractors must have an ambidextrous innovation mindset (Song, Jin & Zhao, 2019). Ambidextrous innovation encompasses both exploitative and explorative characteristics. To cultivate creativity in projects, an organization requires both approaches. Perform contradictory tasks, make active decisions, engage in activities that broaden and sharpen abilities, and improve technological and marketable abilities to develop innovation ambidexterity (Zang & Li, 2017). Being ambidextrous in order to produce creativity in projects is a difficult task for organizations (Dunlop, Parente, Geleilate & Marion, 2016). In their book, Sternberg and Lubart (1991) argued that in order to be creative about a subject, one must first understand what has been done and what needs to be done, in other words, one must understand what is coming up in order to plan for the future. As a result, an entrepreneurial leader uses his greatest skills to create a creative initiative that is driven by innovation. It is critical to investigate the impact of entrepreneurial leadership on project success with innovation as a guiding force and collaborative culture as a strength.

#### - Research Gap

Entrepreneurial leadership is a relatively new concept that is still being studied (Yang et al., 2019). It has been studied in large enterprises and organizations so far, but the importance of innovation and entrepreneurial leadership in project success and project-based organizations has received less attention. As a result, further light on this subject is required.

In addition to addressing this gap, the study focused on the potential mediator and moderator. According to the study, innovative ambidexterity modulates the relationship between Entrepreneurship leadership and project success. Whereas collaborative culture acts as a mediator.

These variables distinguish the study in the field of project management since their impact on the key variables has yet to be investigated. They should be studied in order to obtain a better grasp of how-to entrepreneur leadership lead to project success.

#### - Research Objectives

The research's primary goal was to design and assess the proposed model's viability. It will reveal the link between the factors of entrepreneurial leadership, innovation ambidexterity, and project success. As a moderator, it would also provide light on collaborative culture. The following were the study's particular objectives:

- To examine the relationship of entrepreneurial leadership and Project success.

- To explore mediation effect of innovation ambidexterity between the relationship of entrepreneurial leadership, project success.
- To investigate moderating effect of collaborative culture on the relationship of entrepreneurial leadership, project success.

#### - Research Questions

Given the challenges listed above, this study aims to answer the following research questions;

- Which project manager characteristics best represent entrepreneurial leadership?
- What is impact of project manager entrepreneurial leadership qualities on project success?
- Does innovative ambidexterity mediate the relationship between project manager entrepreneurial leadership qualities on project success?
- Does collaborative culture acts as a moderator between entrepreneurial leadership and project success?

#### - Significance of the Study

Because projects require innovation and uniqueness, it is critical to comprehend a personality type that can meet the demands of modern-day projects. In this study, entrepreneurial leadership is viewed as an effective means of ensuring the success of a creative initiative. This research would assist managers, supervisors, and leaders in learning how to stimulate creativity in their projects and so gain a competitive advantage in an ever-increasingly competitive world. Other crucial characteristics, such as innovative ambidexterity and collaborative cultures, would assist entrepreneurial leaders in making their ideas a success.

To the best of researcher's knowledge, such a study has not been conducted in the last decade, thus this model will assist managers and leaders in discovering new ways of producing creativity and project success by using entrepreneurial leadership skills and supporting collaborative culture throughout.

This topic has not been considered in the Pakistani context. As a result, it will benefit Pakistani organizations and managers who will use the findings to restructure their project completion techniques, resulting in creativity and innovation in their enterprises. They would learn about the necessity and utility of collaborative culture in firms and so serve as a guide for them.

We are aware of how complex the corporate climate has become. In order to compete in the market, it necessitates something additional. A creative, original, and innovative element is required for a project to be successful. In this regard, the following research will guide

future managers to victory. The findings of this study will assist future managers and leaders in developing an effective leadership style that they may lead to make a project successful.

## - Literature Review

### Entrepreneurial Leadership

Cunningham and Lischeron (1991) started the investigation on Entrepreneurial Leadership and referred this one to as mounting unblemished objectives, producing probabilities, consenting individuals, preserving administrative understanding, and constructing a human resource frame. Entrepreneurial leadership is an innovative and up-to-date type of leadership that involves the qualities of headship and the essence of entrepreneurship (Prabhu, 1999). Furthermore, entrepreneurial leadership is generating fresh products, novel observes, and increasing chances in companies. Entrepreneurial leadership could be used for a frontrunner who has the individualities such as risk-taking, assessing prospects, being inventive, creative, exchanging, and tactical. It is an amalgamation of both leadership and entrepreneurship

Furthermore, attributes of a leader such as taking risks, estimating prospects, being original, creative, trading, and tactical may be included in entrepreneurial leadership. leadership on the part of an entrepreneur As per Renko et al. (2015), Entrepreneurial Leadership is about motivating and guiding the behavior of group members toward the achievement of administrative objectives through the appreciation and manipulation of creative prospects. Capacity to deal with business issues is a key ingredient in the entrepreneurial leadership. Encouraging subordinates to achieve their goals, articulating an administration's vision clearly, and encouraging that their efforts will yield notable results are all indicators of entrepreneurial leadership (Leitch & Volery, 2017). Ultimately, the ability to withstand conservational variations that ultimately advance project implementation is an indicator of entrepreneurial leadership. Entrepreneurial leadership can be applied to a wide range of projects.

Furthermore, by acting as entrepreneurial leaders to their staff by spotting and generating new opportunities in the workplace, entrepreneurial leaders emphasize the importance of appealing in entrepreneurial conducts at work (Gupta, MacMillan & Surie, (2004). Beyond modelling the behavior, they expect from others, entrepreneurial leaders enthuse their supporters to engage in innovative behavior and motivate the admirers to reflect on new techniques.

In order to help employees, believe in the company's mission, entrepreneurial leadership fosters a sense of trust among them.

Leading with entrepreneurial spirit allows businesses to utilize many resources while also encouraging critical thinking and problem-solving skills (Roomi & Harrison, 2011). The ability to implement organizations efficiently and handle difficulties in a unique and robust manner with original policies is another benefit of this leadership method. It also gives leaders greater freedom in implementing new ideas and resolving problems that arise in their firms (Bagheri & Pihie, 2011). There must be a certain amount of competence and capacity to guide the organization to its desired goals.

In order for an Entrepreneurial leader to effectively govern the process of innovation, they must empower their people to produce and understand new ideas. It is only through strong leadership that a company's strategy, vision, and outcomes can be stabilized. In order to be a leader, you must be able to guide, direct and manage others. Strategic objectives of businesses should be made clear to executives and their staff. Leadership, according to Jiang (2014).is not about doing things correctly; it is about doing things correctly.

### Entrepreneurial Leadership and Project Success

Project-based administrations benefit from an effective leader that instils a sense of confidence by instilling optimistic assertiveness and ideals that assist the achievement of project success (Aga et al., 2016). In order to respond quickly to conservational variables and achieve organizational goals, various project-based institutions use project leaders in competitive compression (Latif, et al., 2020). The most recent research on leadership styles reveals that different types of leadership have differing effects on a project's outcome and the organization's overall management (Aga et al., 2016).

"Entrepreneurial leadership" is defined as leadership that influences and articulates staff performance toward organizational goals, resulting in project success and opening up new possibilities for employees (Renko et al., 2015). As a result, the role of executives has been increasingly prevalent in the help sector, particularly in areas such as limit construction and community service initiatives (Zaman et al., 2019). For venture success, the PMI (Project Management Institute) signifies the revision of conflicting requirements for project worth, extension, time and budget while also consulting the altering distresses and assumptions for the project partners (Roomi & Harrison, 2011).

In order to motivate the team to go the extra mile to implement the leader's entrepreneurial strategies in the present competitive environment, the leader must emphasize the entrepreneurial opportunities that exist when developing entrepreneurial tactics (Gupta et al., 2004). By acting as a mentor of

entrepreneurialism for their team members, Innovative leaders can help their team members succeed by engaging in tactical Entrepreneurial leadership activities (Renko et al., 2015).

Entrepreneurial leadership is a new and growing type of leadership that shares many of the characteristics of the world's most powerful leaders (Sundararajan, Sundararajan, Henderson, et al., 2012). Many academics have recognized a style of entrepreneurial leadership that emphasizes the discovery of new opportunities and the generation of new ideas (Martens et al., 2018).

Jagdal and Bhola (2014) investigated the impact on pioneering management, hierarchical execution, and limited scope design endeavors in the Pune area of India. There were 144 business visionaries at 13 facilities who provided the data for this report. The results demonstrated the important link between entrepreneurial authority and authoritative implementation. Regardless, the administration framework's primary goal is to provide a working effect on the monitored object so that work on its presentation can proceed. Subject and administration's actions frequently contradict one another, resulting in a persuasive inconsistency, particularly when it comes to defining what constitutes a "authoritative execution" proportion (Sawaeen & Ali, 2020)

Entrepreneurial leadership enables the followers to see their level of quality in the organization as an essential power source for the organization's success and development (Renko et al., 2015). Entrepreneurial leadership encourages employees to think outside the box and to have an entrepreneurial spirit (Freeman & Siegfried, 2015). A leader's significance may vary depending on their organization's significance, the link between leadership and success, and other factors (Kuratko & Neubert, 2018). There is a greater awareness of the importance of supervision among entrepreneurial leaders who not only stimulate and nurture the spirits of their employees towards involvement, but also participate in new movements in entrepreneurship processes. It is generally agreed that entrepreneurial leadership is among the most effective types of leadership. This can help the project succeed if an entrepreneurial leader anticipates the colleagues with a vulnerable atmosphere that encourages teamwork, information sharing and one where group members can discuss answers to the issues \* Nicholson, 1998).

There are many factors that contribute to the success of a project, but the Project Management Institute (PMI) identifies five as being particularly important: the scope, budget, timetable, and challenges faced by the stakeholders (Roomi & Harrison, 2011). In the 1970s, project success was defined by implementation, accomplishment, improvement in productivity, and interval

evaluation. One should take into account the project's overall goals, with a noteworthy difference between the product's completion and the project's consequences, according to researchers. It will be possible to take into account external factors such as product use, customer satisfaction and recompense to customers/clients once the project is completed (Yang et al., 2011). Each level of an organization must constantly grasp new corporate prospects to comprehend entrepreneurial techniques and behaviors in order to achieve this goal.

It's the entrepreneurial leaders' own triumphs that motivate their supporters, motivating and promising them to pursue the same entrepreneurial opportunity-focused habits. Virtuous leaders provide their team members with incentives and conditions that encourage them to work harder and achieve greater heights of success (Martens et al., 2018). When a leader is dishonest, his or her team suffers from inconsistencies, disorganization, and loss of trust (Soomro et al., 2018). The employee's creative endeavors are better set up with the help of leadership. Leaders provide an organizational perspective that encourages workers to conceive and implement innovative ideas, which in turn helps to transform the organization (Imam, 2021).

It is impossible for projects to be successful if supervisors do not have strong leadership or entrepreneurial qualities themselves. In order to be an effective leader, both leadership and entrepreneurship must be present in the person leading. An entrepreneur creates a new business, according to (Soomro et al., 2018).

A thorough understanding of project completion and entrepreneurial leadership is necessary, and these two concepts will be explored in this section. Project-based organizations' outcomes are directly tied to the success of their projects. According to the findings of the literature, entrepreneurial leadership has a positive impact on the performance of organizational (Rehman, 2020., Oh et al., 2019, Afzal et al, 2019; Zainol et al., 2018,) and the enactment of group members regarding the achievement of administrative objectives (Abubakar et al., 2018, Harwardt, 2020, Huang et al., 2014; Zainol et al., 2018; Renko et al., 2015). It is reasonable to expect that entrepreneurial leadership will have a significant impact on project success, especially in light of research showing the impact of different types of leadership on the success of certain projects (Aga, 2016). Any organization's success or failure is determined by its inventive and successful leadership style. Harwardt (2020). found that project teams with entrepreneurial characteristics are more likely to achieve their goals. Entrepreneurial leaders can create an environment where coworkers feel free to discuss problems and come up with creative solutions (Renko et al., 2015). This can aid in the

success of the venture. The abilities of entrepreneurial leaders are therefore highly regarded for enhancing the inventiveness of workers in difficult economic circumstances. Entrepreneurial leadership and project success are intertwined (Majeed et al., 2021). Employees are mentored by entrepreneurial leadership (EL), which identifies, employs, and develops new potential, opportunities and varied perspectives of creativity in a group of workplaces while also drawing attention to the importance of leaders in their workplace Renko et al (2015).

Such a leader's style encourages staff to think beyond the box, which has a positive impact on the project's success. Entrepreneurial leadership is a critical factor in the success or failure of entrepreneurial endeavors, according to recent research (Bian et al., 2018), and businesses are increasingly adopting entrepreneurial practices that foster innovation and transformation (Renko et al., 2015). Purposeful goal setting and execution are essential to any successful project. Consequently, entrepreneurial leadership traits have a positive effect on staff creativity. Entrepreneurial leadership and project success are intimately linked (Bian et al., 2018).

The success of a project is decided by the amount of effort put in, the sincerity with which a purpose is pursued, the degree to which the target audience is satisfied, and the efficiency with which it is implemented (Hugh and Rana, 2020). Entrepreneurial leadership skills are regarded as a valuable asset in times of economic uncertainty because they encourage staff to think outside the box. Both the success of a project and the ability to lead an enterprise have a strong connection to entrepreneurialism (Bian et al., 2018). Entrepreneurial leadership is the most important factor in determining the success of any group. Due to the current competitive business environment, leaders of both large corporations and smaller, nimbler private businesses must possess and make use of the unique attributes of inventive authority if they hope to remain relevant, compete with their rivals, and grow as entrepreneurs (Holzmann & Mazzini, 2020).

Entrepreneurial leadership can be seen by emphasizing that entrepreneurship is the best path. Entrepreneurial leadership or contemporary leadership are the two options. A key aspect of entrepreneurship is launching an innovative business venture. Entrepreneurial leadership, on the other hand, generates new products, advancements, and expansion opportunities in organizations, communities, and political movements, working in societal establishments and moving toward subsidizing neglected social problems, donating to the alteration of current amenities, and strategies of governments and non-governmental organizations. Because of this, companies increasingly require entrepreneurs to serve as their CEOs. Entrepreneurial leaders can be cultivated in the workplace by arranging training

sessions and launching new companies on a daily basis (Hugh and Rana, 2020). The entrepreneur's involvements, opinions, feelings, needs, and ideals are likely to have a significant impact on the way he or she guides and influences group members, given the importance of the entrepreneur in fresh occupational speculations. Entrepreneurs are typically dependable leaders because they are not only truthful to themselves, but also work in such a way that admirers are able to attain enlightenment and mental toughness. An ever-increasing number of businesses and academics are focusing on entrepreneurial leadership and the various facets of this phenomena. The improvement of intentional reserve oversight will lead to a new approach to entrepreneurial leadership. Originality and creativity will rise as a result of entrepreneurial intellect and the capacity for intentional acquisition, which will have a long-term effect on project implementation. Leadership in entrepreneurial endeavors has been found to be coordinated by encouraging and directing advancement (Renko et al., 2015), helping staff members to manage the difficulties and dangers of taking part in inventive actions, and merchandising with business climate complexity and risk (Freeman & Siegfried, 2015; Karol, 2015). Entrepreneurial leadership encompasses a wide range of skills, including strategic planning, problem solving, quick decisions, taking risks, and the capacity to share power ((Holzmann & Mazzini, 2020). Preliminary research has shown that leaders who use entrepreneurial leadership to focus on their own particular skills and practical experience are more likely to succeed in their roles in the organization (Holzmann & Mazzini, 2020).

Entrepreneurial leadership traits can lead to project success, according to the Leader Exchange Member Theory. Employees are more likely to display innovative behavior if they are empowered and given the opportunity to develop their skills, which in turn helps the firm grow. As long as a project's leader can inspire and influence his or her team, it will be a success. Summing up all the discussion we can proposed the first formal hypothesis of this study as;

**H1: There are significant and positive association among entrepreneurial leadership, project success.**

### **Entrepreneurial Leadership and Innovation Ambidexterity**

Entrepreneurial leadership requires the ability to see the present situation while also keeping abreast of what's to come. The dual focus of innovation ambidexterity is on putting new ideas, creative concepts, and technical know-how to work to seize future employment chances (Khairuddin et al., 2021). According to Ferreira, Coelho and Weersma (2019), this notion refers to the ability to create new products while considering both current and future technological developments. According

to researchers, the term innovation ambidexterity is a blend of exploitative and exploratory ambidexterity. There are two extremes of the same continuum when it comes to explorative versus exploitative innovation. An individual's ability to produce anything new might be described as explorative innovation, while exploitative innovation is a search for new ways to exploit existing opportunities (Limaj and Bernroider, 2019).

In a group, a leader is someone who directs and gathers people to carry out goals and lead them for group innovative activities to carry out group functions in innovative way. This Leader is nominated by wide population or nominated by a group. Emotional intelligence has been linked to greater leadership effectiveness, according to a number of studies (Fu et al., 2018). Ethical values and practices are clearly linked to leadership effectiveness, according to a review of more than 150 studies. Similarly, practices traditionally associated with spirituality, such as honesty and integrity, have also been found to have a positive effect on leadership success, as has being honest, showing integrity, and having high morals (Wu et al., 2021). Feedback mechanisms, such as peer-to-peer feedback or coaching, can help leaders become more effective in their jobs (Wu et al., 2021).

Leaders can improve their abilities and effectiveness by adopting a variety of various leadership behaviors. Motivation and efficiency in creating groups and making them operate in accordance with your wishes but in a way that the team members see it as an opportunity to grow, learn, and succeed, rather than a burden (Limaj and Bernroider, 2019). As a result, a leader is considered to be accomplishing his or her objectives and being successful. Takes chances and involves his team members in the venture within the project by advocating his ideas and acting on them not just personally but also verbally and non-verbally. When the entire team, including. A leader, agrees to take the risk and start the project with motivation, this is procedure that encourages innovation in projects.

Innovation ambidexterity is not an easy undertaking to accomplish, and until now, there has not been an example of a totally ambidextrous organization. This is because being inventive requires a lot of time and money. Interdisciplinary innovation ambidexterity indicates a company's ability to innovate in both a rapid and slow manner, which involves developing new ideas and working on them to improve efficiency (Khairuddin et al., 2021).

For an organization to obtain a competitive edge and to improve its business performance, it is crucial for an organization to have both incremental and radical innovation in its arsenal (Anggadwita et al., 2017). However, corporations may find this

difficult because they may achieve incremental innovation by making use of current resources, however radical innovation is more difficult to achieve by looking for new possibilities (Anggadwita et al., 2017). incremental innovation is more easily achieved since it focuses on utilizing existing knowledge and developing products for existing customers, whereas fresh knowledge and new skills are needed to investigate the demands of the next generation of consumers, thereby achieving radical innovation (Akbari et al., 2020). For the sake of offering innovation ambidexterity, Lin and Wu et al., (2021) emphasized that knowledge essential for uniqueness can be gained from both external and internal sources.

The term "innovation" is used to describe a shift in the status quo that leads to new discoveries (Ranjan, S. (2018). The findings from Lee & Kreiser (2018). research show that it is not the team, but rather the sort of leadership that leads to an organization's innovative behavior. To foster an innovative workplace, a leader can empower his team through task motivation and decision-making involvement ((Khairuddin et al., 2021). While the capacity of the leader produces an innovative environment, it does not just depend on the scenario at hand, but creative thinking capabilities as well as technical talents play a significant role in this (Wu et al., 2021). Team members are more likely to come up with new ideas when their leader models innovative conduct.

As Rochiyati Murniningsih & Hanafi, M. (2020) put it: "Exploration" is about trying new things and taking risks, while "exploitation" is about obeying the rules and doing things the way they've always been done instead of thinking outside the box. Both of these are essential for the development of new ideas, but they can only be realized with the help of a strong leader. Ambidexterity in innovation is encouraged by risk-taking managers or leaders who create a culture of experimentation and openness to new possibilities (Chang & Hughes, 2012). If a leader can't discover an existing creative team, he'll have to build one from scratch (Mueller, et al., 2020). As this demonstrates, a culture of innovation may be fostered under the direction of an entrepreneurial leadership style. Innovation can be directly linked to the ability of an entrepreneurial leader to stimulate unique activities, which in turn leads to innovation. (Khairuddin et al., 2021). When compared to other leadership styles, entrepreneurial leadership emphasizes creative problem solving and empowering employees to do the same (Renko, 2017). Risk taking and flexibility (characteristics of EL), according to Lee & Kreiser (2018, lead to ambidexterity in the realm of innovation. The manager should focus on developing new organizational norms, structures, activities, and processes that will encourage the exploration of new approaches to current technology and other resources, thus aiding in the invention of new ideas (Khairuddin

et al., 2021). As a result, previous research indicates that effective leadership is a necessary prerequisite to creative thinking Khairuddin et al., 2021. Based on this discussion we proposed our second formal hypothesis as;

**H2: There's a positive association among innovation ambidexterity and project success.**

### **Innovation Ambidexterity, Entrepreneurial Leadership and project success**

According to Khairuddin, et al., (2021), a leader who executes the necessary type of strategy to support innovation and creativity is a crucial ingredient for achieving innovation and creativity in a business. When an employee is given the option to choose how to complete a work, his motivation and, as a result, creativity will rise. Announcements of monetary incentives for specific tasks can help this happen (Shahzadi et al., 2021). Organizations are under pressure to produce creative and efficient services because of the importance of ambidexterity (Ahsan, 2019).

An entrepreneurial leadership, we believe, should play the role of efficient resource allocator and creative inventor by exploring and exploiting opportunities.

Research by Komen (2017) demonstrates that people become inventive when their supervisors have a good relationship with them, provide an environment that encourages innovation, and the employee himself is unhappy with his or her current position in the company's hierarchy. The only prerequisite for employees to feel that they need to work innovatively is that they feel that way themselves (Zuraik et al., 2020). Ambidexterity in innovation is made possible by an environment that welcomes risk, ambiguity, and uncertainty, while also allowing for individual initiative and delegating authority (Santiago, 2021). To foster a culture of ambidexterity in an organization's innovation, entrepreneurial leaders incorporate creativity into their own conduct (Baron & Tang). Because of their ambidexterity, such leaders promote voice behaviour and, in turn, innovation (Berraies & Abidine, 2019).

To be a leader, you must be able to do everything from identify a specific objective to inspire and help others to reach that objective (Wu et al., 2021). Soft skills like this one don't educate you to think in a certain way, but they do help students learn how to think in a certain circumstance (Killen et al., 2019). Some of the most popular theories about how to be a great leader in the last fifteen years include charismatic (transformational), visionary (inspiring), and inspirational (motivational) (Lien, 2020). Nel et al., (2020) found that no single leadership style is best suited for all scenarios; rather, the

success of a leader depends on their capacity to adjust their leadership style to the situation.

Managing a project can benefit greatly from a project manager's leadership style (Tabbassi, Argyropoulou, Roufechaei & Argyropoulou, 2016). To avoid mismanagement, disagreement, and miscommunication, a project's short time frame and various team members necessitate the employment of an effective leadership style (Zhang, Cao & Wang, 2018). As a manager, your primary goal is to get results, but as a leader, your primary goal is to influence, guide, and direct the work of others (Tariq, 2019).

Today, running a business is risky, ambiguous, thick, and intricate, which makes it difficult to operate in an unpredictable environment and to take risks in order to correctly allot resources (Weissbrod, 2019). A firm can be started today, but according to Yang, Pu, Guan (2019), an average enterprise only lasts 2.9 years on average. Organizational pressures including high performance expectations, balancing client needs and a huge level of customer satisfaction with limited resources (Mio, Newman, Schwarz & Cooper, 2018) necessitate new approaches. For the long-term viability of the companies, it is essential to have a competitive advantage that is tough for the rivals to replicate (Arzubiaga & Alamo, 2019). Entrepreneurial leadership (EL) has been widely regarded as a key factor in achieving success in company (Ramsgaard & Warren, 2015). "Entrepreneurship Leadership" was born out of the merger between an entrepreneurial spirit and an organization's leadership, according to Z. Ximenes (2019). Innovative and risk-taking firms benefit from entrepreneurial leadership, which sets their sights on achieving new heights while also encouraging their employees to do the same (Cai, Lysova, Khapova & Bossink, 2018).

Based on a case study of a US-based firm called New Flyer, Nijhof, Krabbendam, and Looise (2002) claim that the CEO of the company was an entrepreneurial risk taker who operated by analyzing people's strengths and possibilities and recognizing the dangers. The study by Amabile found that the ability of employees to come up with unique ideas and the leadership's ability to foster this ability are two of the main sources of project creativity (Latif, et al., 2020).

**H3: There is significant and positive association among entrepreneurial leadership and innovation ambidexterity.**

### **Innovation Ambidexterity and project success**

When we talk about innovation, we usually mean something that causes a shift (Sagar et al., 2019). When it comes to invention, there is a theory that says creativity is the product of



many different conceptions coming together. The application of new ideas after searching for both existing and potential prospects ambidextrously is what we call innovation, and it results in increased inventiveness in our undertakings (Rank, Pace & Frese, 2004). In order to foster innovation ambidexterity, there are a number of ways to do it, one of which is encouraging staff to work on two separate projects at once (Zang & Li, 2017). The development of creative ideas and their entrepreneurial leadership is critical for an organization's creativity (Westwood & Low, 2003).

Both domain-related skills and the ability to think creatively, which involves coming up with original solutions to problems, are described by Hoegl & Parboteeah (2007). They contend that creativity requires both sorts of talents. Teamwork is most productive when it is allowed to flourish in a supportive environment, rather than one that is tightly regulated and monitored (Oldham & Cummings, 1996). According to Shalley (1991)'s findings, employees' levels of creativity plummet when their work environment prioritizes productivity over innovation. For this reason, it is imperative for firms to be innovative in order to gain a competitive advantage (Bassett-Jones, 2005). There is evidence to imply that groups are more creative than individuals since individuals do not love their work as much as groups do, resulting in something new and innovative. Nijstad and De Dreu (2002).

A company's ability to differentiate itself from the competition and improve its bottom line through incremental and radical innovation is a key benefit of exploratory and exploitative innovation (Lin, McDonough, Lin & Lin, 2013). It's possible for firms to achieve incremental innovation by utilizing current resources, but achieving radical innovation by looking for new possibilities is more difficult (Andriopoulos & Lewis, 2009). Because incremental innovation focuses on utilizing existing knowledge and developing products for current clients, it is easier to achieve incremental innovation than radical innovation, which requires new knowledge and new abilities (Lin & McDonough, 2011). As emphasized by both Lin and McDonough (2014), knowledge essential for innovation can be obtained from both external and internal sources, resulting in innovation ambidexterity through both contributions to organizational learning.

According to this definition, innovation occurs when the norm is challenged and new possibilities are discovered (Oke, Munshi & Walumbwa, 2009). According to Hoch's (2013) findings, it's not the team but rather the sort of leadership in a company that leads to innovative behavior. For an innovative workplace, a leader might employ a variety of methods for motivating and involving their team in decision-making (Burditt & Bigoness, 1997). Leaders can also foster an

environment of innovation, but this does not solely depend on the current situation; rather, creative thinking skills and technical expertise play a significant role (Mumford & Licuanan, 2004). Team members are more likely to come up with new ideas when their leader models innovative conduct (De Jong & Den Hartog, 2007).

It has been argued that exploration relates to risk-taking and a willingness to think outside the box whereas exploitation focuses on adhering to the established norms and obeying the regulations. Both of these are essential for the development of new ideas, but they can only be realized with the help of a strong leader. Ambidexterity in innovation is encouraged by risk-taking managers or leaders who create a culture of experimentation and openness to new possibilities (Chang & Hughes, 2012). Leaders may have to create their own creative team if they can't locate one currently in place (Bledow, Frese & Mueller, 2011). Entrepreneurial leadership may foster an environment of innovation. When an entrepreneur's primary goal is to promote unique activities (Mokhber et.al. 2016), he or she might develop a direct link to innovation ambidexterity. When compared to other leadership styles, entrepreneurial leadership emphasizes creative problem solving and empowering employees to do the same (Renko, 2017). Brion, Mothe, and Sabatier (2010) argued that risk-taking and flexibility (EL characteristics) lead to innovation ambidexterity, and this is supported by their research. Developing new approaches to existing technology and other resources requires the manager to work on new organizational standards, structures, activities, and processes, all of which can aid in the creation of new innovations (Mom, Van Den Bosch & Volberda, 2007). As a result, previous research indicates that effective leadership is a necessary prerequisite to creative thinking. Rosing and Zacher (2015)

Innovating and being creative are inseparable. A competitive enterprise requires both originality and innovation, according to Lajos (2016). To put it another way, innovation is the utilization of ground-breaking ideas that lead to project creativity. 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.

#### **H4: Innovation ambidexterity mediates association among entrepreneurial leadership and project success.**

## **Collaborative Culture, Entrepreneurial Leadership and project success**

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 (Felix, Aparicio, & Urbano, 2018). The goal is to foster open communication, minimize organizational structure-induced hurdles, and promote creative problem solving (Raziq, et al., 2018). There is a shared accountability and delegated authority that enables for ongoing improvement in both the thought process and implementation of ideas (Iqbal, et al., 2019). 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 (Khairuddin et al., 2021). A sense of belongingness, as well as autonomy for a shared goal and participation in decision-making, were identified by Arzubiaga & Alamo (2019) as key contributors to collaborative culture. Knowledge grows as ideas are shared, communication is unbroken, and impediments to workforce growth are eliminated, resulting in increased production (Felix, Aparicio, & Urbano, 2018).

A leader's entrepreneurial spirit can only be assessed by evaluating the progress gained through innovation in terms of the degree of originality provided by that leader (Miao, Newman, Schwarz & Cooper, 2018). Consequently, the idea of entrepreneurial leadership has attracted a lot of interest as a new study and practice tool (Bagheri & Pihie, 2011). An entrepreneurial leader, according to Shahzadi et al., (2021), has two major responsibilities; the first is to create an environment of change and the second is to persuade stakeholders to adopt such changes by giving resources for implementation. Lajos (2016), 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 (Shahzadi et al., 2021).

To develop something creative, the leader needs to possess the skills that lead him to think creative (Ahsan, 2019). Moreover, the leaders focus on time is also very critical in order to effectively lead an innovation driven project (Halbesleben, Novicevic, Harvey & Buckley, 2003). Zacher & Rosing (2015) 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 (Renko, 2017). 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 (Mokhber et.al. 2016). Many studies show that creativity is required in all the fields (Chang & Hughes, 2012). Taylor and Littleton (2012), in their book proclaimed that employees often run from their jobs and resign because of the monotonous and uncreative work. Renko (2017) claims that Iceland is the most creative country in the world, with one out of every four residents engaged in some sort of creative endeavor. Entrepreneurship and project success are directly linked to an individual's ability to think creatively (Mubarak & Noor, 2018).

The research demonstrates that many people lack the ability to employ innovation, despite its obvious benefits (Andriopoulos & Lewis, 2009). Lu et al. (2008) 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. According to Mubarak et al. (2018), the correct style of leadership is essential to allow employees to practice their original and unique ideas in a safe and supportive atmosphere. An entrepreneurial leader can serve the purpose, because he is also a risk taker and good analyzer of opportunities. Entrepreneurial leaders may inspire their teams to bring their best selves to their job by ensuring that everyone is moving in the same direction (Lin and McDonough, 2014). Based on a study conducted in collaboration with entrepreneurs Khairuddin et al. (2021), it was shown that a leader's ability to inspire the team's innovation, risk taking, and entrepreneurial spirit might have a positive impact on the overall endeavor.

Collaborative culture can be considered as a subunit of organizational culture, as it is also based on shared values (Lee & Kreiser (2018). The literature shows that effective teams result when there is clear communication, mutual trust and no misunderstandings, hence a collaborative culture (Akbari et al., 2020). As detailed by Wu et al., (2021) it reduces vagueness among team members and ambiguity of the task and goals. A study conducted by Anggadwita et al., (2017) 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 (Ranjan, 2018). Khairuddin et al., (2021) 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. Chang & Hughes (2011) 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: The association among entrepreneurial leadership and project success is moderated by collaborative culture, which improves the relationship.**

**- Researchers Hypotheses**

Based on our above discussion, we can conclude the following four hypotheses in this study

- H1: There are significant and positive association among entrepreneurial leadership, project success.
- H2: There's a positive association among innovation ambidexterity and project success.
- H3: There is significant and positive association among entrepreneurial leadership and innovation ambidexterity.
- H4: Innovation ambidexterity mediates association among entrepreneurial leadership and project success.
- H5: The association among entrepreneurial leadership and project success is moderated by collaborative culture, which improves the relationship.

**- Theoretical Framework**

In this study we have one independent variable that is entrepreneurial leadership, one dependent variable e.g., project success one mediator variable innovative ambidexterity and one moderator that is collaborative culture. The detail of all of these variables are mentioned below;

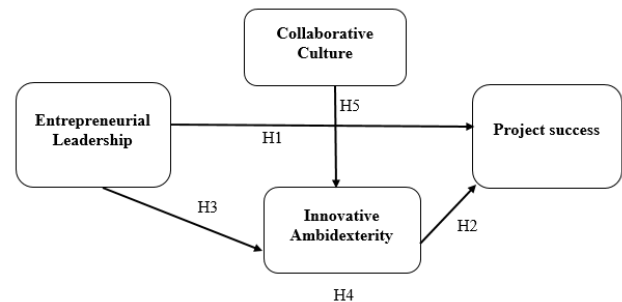


Figure 2.1; Theoretical framework

**- Research Methodology**

Now the researcher will discuss all of the procedures utilized to obtain reliable study results. It contains information about the population, the characteristics of the sample, the design of sampling processes, and the instruments' reliabilities.

**- Research Design**

Objective of research is to demonstrate impact of entrepreneurial leadership to project success. The correlation and regression of variables have been examined for this purpose. People and leaders from project-based organizations have been surveyed for this research. Although 300 questionnaires were sent out, only 274 authentic responses were received. The population of project-based organizations in Pakistan is represented by this sample of 274 people.

**- Unit of Analysis**

The unit of analysis, which ranges from individuals through groups, organizations, and civilizations, is an important component of research. The dyadic interaction between the leader and project members is the focus of this study, hence the unit of analysis is dyadic. In project-based companies, entrepreneurial leaders give way to innovative ambidexterity, which then becomes the source of project creativity. As a result, data was gathered from project-based organizations like NOKIA, HUAWEI, PTCL Zong, Ufone, Telenor and Mobilink.

**- Research Philosophy and Quantitative Research**

This study employs the hypothetical deductive technique, which means that past literature and theories were used to

construct hypotheses, which were then evaluated. Because quantitative research is the most effective in delivering high-quality results for a large population, this study is quantitative as well, which aided in correlating the factors.

## - Population and Sample

### Population

Project team members and leaders/managers of project-based companies in Pakistan make up the target population for this study. Because the focus of this study is on project success and innovation, respondents who are aware of the value of creativity in projects were necessary. In this case, project-based organizations particularly firms like PTCL, Mobilink, Telenor, Zong and Ufone proved to be an excellent source of data. We mainly collected data from owners and employees who are holding some managerial position in these firms which are our target population.

### Sample and Sampling Techniques

Collecting data from the entire population, which in this case is all of Pakistan's project-based organizations, is extremely difficult. Due to time and budget constraints, this is not possible. As a result, a small group is chosen to represent the entire population since it shares many of the same features. As a result, a sample of project-based organizations was chosen to collect data.

The goal of the study was to emphasize the importance of entrepreneurial leadership in a company's innovation ambidexterity and project success. The sample comprises both project team members and project managers or leaders. This study employed employ a total of 300 samples.

Because of limited time and resources, convenient sampling is used. This is a sort of non-probability sampling approach. It entails random data collecting, which is both possible and efficient for data collection in resource-constrained situations. For data collection, questionnaires will be issued to owners, employees and managers.

## - Instrumentation

There were two types of questionnaires and two parts to the questionnaire. The first section dealt with demographics such as age, gender, educational attainment, work experience, and income. The second section of the survey included questions on all four variables: entrepreneurial leadership, innovative ambidexterity, project success, and collaborative culture. The questionnaire created using items from several sources. The

respondents will be asked to comment on Five point Likert scale. With 1 showing high disagreement and 5 showing high agreement. By putting them through a reliability test, all of the scales passed.

## - Entrepreneurial Leadership

A six-item scale adopted from the study of Gopal, Anandvisam & Sanjay, (2010) to measure entrepreneurial leadership. The items contained information on leadership features such as if he is smart and insightful, whether he plans events, is vigorous and acts on entrepreneurship. By marking the respective options from 1 to 5 they demonstrated their strength of agreement. Where 1 showed substantial disagreement and 5 strong consensus.

## - Innovation Ambidexterity

The innovation ambidexterity questionnaire consisted of eleven items. These comprised both exploitative and exploratory ambidexterity issues. The scale included elements which examined an organization's ability to adapt changes to existing products and produce new ones. Initially Pedro, Simona & Isabel devised the scale utilized (2018). The Likert five-point scale utilized was in stark disagreement with 1 and strong agreement with 5.

## - Project Success

The project success scale consists of six items that strive to get the views of individuals about the success of their projects, both in terms of client approval (quality) and efficiency (scope, time and costs). This structure has been adopted by Aga et al (2016).

## - Collaborative Culture

The measure of collaborative culture was created by de Luque et al. (2008). This was a 3 scale. What asked the team members in the organization how supportive and helpful it is. He also inquired how often and easily tasks as well as the level of interaction between groups were shared.

## - Statistical Tool

Different statistical tools such as descriptive statistics, reliability, correlation, and regression were used.

## - Findings and Conclusions

The study is based on primary data, which was acquired by questionnaires, as stated in chapter three (3). Using a margin of error of 5% and a degree of confidence of 95%, For this study,

we delivered 350 questionnaires to employees from firms like PTCL, Zong, Mobilink Jazz, Ufone and Telenor operating in the telecom sector in twin cities like Rawalpindi and Islamabad. Despite the fact that the majority of the respondents were reached directly by visiting their offices and handing out printed copies of the questionnaire, we also contacted some of them using online means such as emails, Facebook, and WhatsApp. We received back total of 300 responses from total of 350 questionnaires that we have distributed among different employees. Because 26 of the 300 questionnaires were incorrectly completed, the investigation's final sample size was reduced to 274 questionnaires. The response rate for this study was 91.33 percent.

**- Cronbach's Alpha**

Cronbach's alpha is a statistic used to evaluate the reliability, or internal consistency, of a set of scales or test items. In other words, the strength of a measurement's consistency can be measured using Cronbach's alpha, which is one approach to determine whether a measurement can be considered reliable or not.

SPSS is used to calculate Cronbach's alpha, a measure of instrument reliability in this research. According to Hair et al., a score of 0.50 is considered appropriate (1998). In this study we have one dependent variable which is project success, one independent variable such as Entrepreneurial Leadership, Innovative Ambidexterity and one moderator such as collaborative culture.

Table 4.1 depicts the detail of Cronbach's Alpha we measured in this study. We found that entrepreneurial leadership Cronbach's Alpha is .693, Innovative Ambidexterity Cronbach's Alpha is .654, Collaborative culture Cronbach's Alpha is .748 whereas Project success Cronbach's alpha is .847 showing that all the items are highly reliable as the Cronbach's alpha for all the variables is above 0.5.

	Cronbach's Alpha	N of Items
Entrepreneurial Leadership	.693	6
Innovative Ambidexterity	.654	11
Collaborative culture.	.748	22
Project success	.847	14

*Note: Sample Size = 274*

Table; 4.1 Reliability Statistics

**- Control Variables**

Using a one-way ANOVA, we identify the demographic factors that are influencing our main model and consequently control them in our regression. In this study we have four key demographic variables such as Gender-(sex), Age group, Qualification-(Degree) and Experience. Thus, we have organized One-way ANOVA among demographic variables with our key dependent variable i.e., Project success to examine that their impact is significant or not. The below table 4.2 shows the details of One-way ANOVA of this study.

Consumer demographic items	F	Sig
Gender	1.648	.200
Age	.774	.543
Qualification	.911	.474
Experience	.233	.919

*Note: Sample Size = 274, Dependent variable = Project Success*

Table 4.2; One-way ANOVA

The above table 4.2 shows that all the demographic variables containing Gender, Age, Qualification and experience have insignificant impact on our dependent variable such as project success as the P-value between gender and project success is found .2, for Age and project success P-value is .543, for qualification and project success it is .474 and among experience and project success the P-value observed is .919 which shows that P-value is above our significant area that is .05. The finding of the ANOVA shows that there is no impact of our demographic variables on dependent variable which mean we don't need to control them in our main regression model.

**- Descriptive Statistics**

A descriptive statistic is a summary statistic for the demographics variable that we employed in this study. The demographics of the respondents were investigated through the use of descriptive analysis. Because it has an indirect effect on the main variables, the respondent profile of a questionnaire is an extremely important component of the questionnaire. As a result, it is essential to take into account certain demographic characteristics.

The first part of our questionnaire contains demographic part to examine the respondents profile section including mainly Gender, Age, qualification and experience. An explanation for this part can be found below in table 4.3;

	Gender Frequency	Percentage
Male	179	65.3
Female	95	34.7
Age		
18-24	73	26.6
25-31	91	33.2
32-38	70	25.5
39-44	30	10.9
45 and above	10	3.6
Qualification		
Matriculation	3	1.1
Intermediate	17	6.2
Bachelor	117	42.7
Masters	95	34.7
Mphil/PhD	42	15.3
Experience		
0-3 years	111	40.5
4-6 years	82	29.9
7 - 10 years	57	20.8
10 and above	24	8.8

Note; Sample Size = 274

Table 4.3; Descriptive statistics of our Respondents

Our first demographic variable is Gender which are divided into male and Female. The Table 4.3 shows that 179 respondents (containing 65% of total Responses) were Male whereas Female were 95 which contain 35% of total responses.

The next demographic variable we have proposed in this study is Age. Age is divided into five key sections such as 18 to 24, 25 to 31, 32 to 38, 39 to 44 and 45 and above. The table shows that 73 respondents (27% of total responses) were belong to age limit of 18 to 24, 91 respondents (33%) were belonging to age limit of 25 to 31, 70 respondents were from the age limit of 32 to 38, 30 participants were from age limit of 39 to 44 whereas 10 participants (3.6%) were from the age limit of 45 and above. The third important variable is qualification which is divided into five key sections such as matriculation, Intermediate, bachelor, Master and MPhil/PhD. The table shows that 3 participants were holding Matriculation degree, 17 respondents having qualification equal to intermediate, 117 respondents (43%) were having bachelor degree, 95 respondents having their master degree whereas 42 participants are those respondents having degree of MPhil or PhD.

The next and final variable we have in this section is experience which is divided into four key sections such as 0 to 3 years, 4 to 6 years, 7 to 10 years and 10 and above. The table shows that 111 respondents (41% of total responses) were having experience of 0 to 3, 82 participants were having work experience of 4 to 6 years, 57 respondents were having experience of 7 to 10 whereas there were 24 participants who were having work experience of 10 and above.

**- Correlation**

In statistics, correlation is a statistical metric that expresses the linear relationship between two variables (meaning they change together at a constant rate). It's a typical method for describing

simple connections without making a cause-and-effect assertion. In other words, it's a way of figuring out how closely two variables are linked. When conducting a correlational study, you can discover if there is any relationship between two variables: either positively or negatively, or there may be none at all. Two variables are said to have a positive correlation if they move in the same direction as each other. This means that one variable rises in response to an increase in the other; conversely, one variable falls in response to an increase in the other. In the context of two variables, a negative correlation indicates that as one measure rises, the other falls. It is possible to have a zero correlation when there is no connection between the two variables being studied.

After presenting our participant's descriptive statistics, the next step is to investigate whether or not our key hypothesis is accepted or rejected. In most cases, we rely on the correlation matrix and regression as two of the most common tests. We use a correlation matrix to look for connections between the various variables we've included in our research. A correlation test shows the interrelation between the variables. In this study, we have proposed one independent variable i.e., Entrepreneurial Leadership (EL), one dependent variable i.e., Project success, (PS) one mediator i.e., innovative ambidexterity (IA) and one moderator such as collaborative culture (CC). We have conducted correlation matrix to find the interrelation between these proposed variables. The below table 4.4 depicts the detail of our correlation matrix.

The first important hypothesis is there are significant and positive association among entrepreneurial leadership, project success. The table shows that this hypothesis is approved as correlation coefficient between Entrepreneurial leadership and project success is .380 whereas P-value is less than .05 showing a positive and significant impact of entrepreneurial leadership and project success.

The next hypothesis is there is significant and positive impact of innovative ambidexterity on project success. The table shows that this hypothesis is also approved as we observed that correlation coefficient between innovative ambidexterity and project success is .454 whereas P-Value is less than .05 showing that there is significant and positive impact of innovative ambidexterity on project success.

The third formal hypothesis is there is significant and positive relationship between collaborative culture and project success which is again approved by our correlation matrix. The table shows that this hypothesis is also approved as the correlation matrix is .249 and P-value is less than .05 showing a positive and significant relationship between these two variables.

The final formal hypothesis is that there is significant and positive relationship between entrepreneurial leadership and innovative ambidexterity which is again approved by our correlation matrix. The table shows that correlation coefficient between entrepreneurial leadership and innovative ambidexterity is .249 whereas the P-value is less than .05 which shows a significant and positive relationship between entrepreneurial leadership and innovative ambidexterity.

Correlation matrix is an important tool to examine the interrelation between variables however it also helps us to explore potential multicollinearity among the variables. According to Gujarati et al., (2012) the potential problem of multicollinearity is said to exist if the correlation coefficient is above .8. however, in this study the highest correlation coefficient is .473 which is among innovative ambidexterity and collaborative culture which means that there no problem of potential correlation.

	PS	EL	IA	CC
PS	1			
EL	.380**	1		
IA	.454**	.254**	1	
CC	.249**	.181**	.473**	1

*n* = 274  
 PS = Project success, EL = Entrepreneurial leadership, IA = Innovative ambidexterity, CC = collaborative culture  
 \*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4; Correlation Matrix

**- Regression Analysis**

After verifying the correlation between the study's variables, the next step to explore the impact of our proposed independent variable on dependent variable. For the sake of this investigation, we've proposed one independent variable such as entrepreneurial leadership, one dependent variable such as project success, one mediating variable such as innovative ambidexterity and one moderating variable such collaborative culture. A regression analysis test was performed using SPSS version 22 to assess this effect.

To determine the impact of independent on dependent variables, regression analysis is performed. A regression model is used to determine the relationship between two variables represented by X and Y. An equation like  $Y = F(X)$  is the most basic form of a regression model; it shows how changes in the value of Y are influenced by changes in the value of the independent variable X. The following is an explanation of the study's regression model:

$$PS = B_0 + B_1(EL) + B_2(IA) + B_3(CC) + e$$

The dependent variable is PS, which represents the project success. EL independent variables that describe Entrepreneurial leadership, IA is mediator which represent innovative ambidexterity, whereas CC is our only moderating variable which shows collaborative culture. B0 is always the same, as are B1, B2, and B3.

For better understanding our regression analysis has been divided into two key sections such as in section 1 we have tried to explore direct impact of our independent variable i.e. Entrepreneurial leadership (EL) and innovative ambidexterity (IA) on dependent variable project success (PS). As a further step, we'll employ mediation and moderation techniques developed by Preacher and Hayes (2004). Detailed descriptions of these two stages can be found in the following paragraphs.

The below table 4.5 shows the regression analysis between our independent variables such as entrepreneurial leadership and innovative ambidexterity and our dependent variable such as project success. The Sig level is .00 which is below .05 shows that overall impact of our independent variables on dependent variable is significant. The R square value is .281 shows that combine impact of our independent variables such as entrepreneurial leadership and innovative ambidexterity on our dependent variable i.e., project success is positive and 28%.

Talking about main hypotheses the first hypothesis is that there is significant and positive impact of entrepreneurial leadership on project success. Considering the finding mentioned in below table (4.5) we can say that this hypothesis is accepted as the P-value is .00 (P-value is less than .05) and beta value is .283 showing a positive impact entrepreneurial leadership on project success. Statistically, it can be explained that one percent change in entrepreneurial leadership will resulted to increase 28.3% increase in project successfulness.

Second formal hypothesis of research is there is a positive influence of innovative ambidexterity to project success. The regression output suggested that this hypothesis is also approved as the P-value is .00 (P-value is less than .05) whereas the beta value is .382 which shows a positive and significant impact of innovative ambidexterity on project success. This finding suggested that increase in one percent in innovative ambidexterity will resulted to improve project success by .38%.

We also examine the impact of entrepreneurial leadership on innovative ambidexterity as our third formal hypothesis is that there is significant and positive impact of entrepreneurial leadership on innovative ambidexterity. The findings show that this hypothesis is also approved as the P-value in this case is 0.00 (P-value is less than .05) whereas the beta value is .254 shows that increase in one percent in entrepreneurial leadership

will resulted to increase in innovative ambidexterity by 25% which again approved our third formal hypothesis.

	Dependent variable	Beta	T- Value	Sig.
Entrepreneurial leadership	Project success	.283	5.317	.000
Innovative ambidexterity	Project success	.382	7.171	.000
Entrepreneurial leadership	Innovative ambidexterity	.254	4.333	.000
R		.530		
R Square		.281		
Sig.		.000		

n= 274  
Dependent variable = Project success, Innovative ambidexterity independent variable = Entrepreneurial leadership, Innovative ambidexterity

Table 4.5; Regression analysis

**Mediation Analysis Results**

We further investigated our fourth formal hypothesis that innovative ambidexterity mediates the relationship between entrepreneurial leadership and project success. We followed Preacher and Hayes' process macro mediation model number four (2004). According to Preacher and Hayes (2004), For mediation four different paths such as a, b, c and c' respectively have to be check. Preacher and Hayes (2004) suggested that three effects i.e. Direct effect, indirect effect and total effect to be ascertained for model 4 of mediation. These effects are explained in below paragraphs with the help of given table and diagrams.

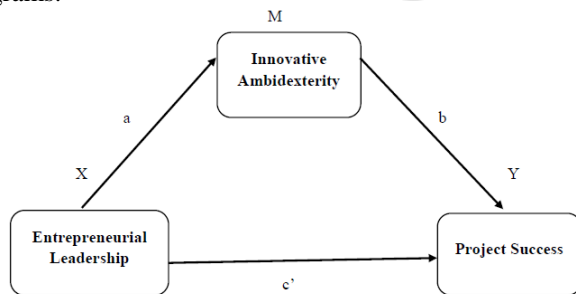


Figure 4.1: Mediation Analysis

DV	Effect on IV on M (a path)		Effect of M on DV (b path)		Total effect of IV on DV (c path)		Direct Effect of IV on DV (c' path)		Bootstrap results for indirect effects	
	B	t	β	T	β	t	B	t	LL 95%	UL 95%
PF	.176***	4.33	.490***	7.171	.251***	5.317	0.2508**	5.317	.0436	0.1337

LLCI = Lower Limit Confidence Interval; ULCI = Upper Limit Confidence Interval.

Table 4.6: Mediation Analysis

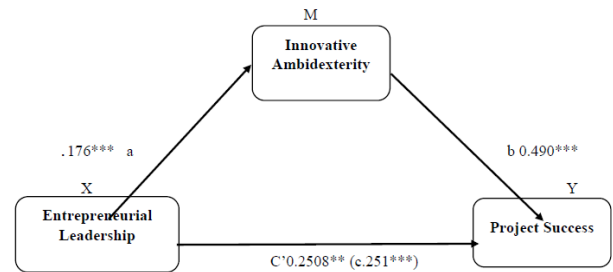


Figure 4.2: Mediation Analysis with Coefficients

**Total Effect**

The total effect refers to the influence of our independent variable such as entrepreneurial leadership, on the dependent variable i.e., project success. We observed that Entrepreneurial leadership has a considerable impact on project success, as the is beta value is .283 and P-value is less than .010 (P-value is less than .05), showing that a 1% change in our independent variable e.g., Entrepreneurial leadership, resulted in a 28.3 percent rise in project success. We also noticed that the range of the Lower and Upper limit of Bootstrap is .0957 and .2552 respectively, with no zero value in between, showing that there is an important and significant relationship between entrepreneurial leadership and the success of the Project. In light of these findings, we may infer that our hypothesis that entrepreneurial leadership has a significant impact on project success is justified.

The **Project Success** the impact of an independent variable, Entrepreneurial Leadership, on the dependent variable, Project Success, when a mediator, such as Innovative Ambidexterity, is taken into account. The output of the Model 4 process macro indicated that the beta value is 0.4898 and the P value is less than 0.01, which explains that a 1% change in Entrepreneurial leadership results in a 48.98% increase in Project success. The lower and upper limits of Bootstrap, respectively, are .3553 and .6243, in addition to these facts. There is no zero fall between these two points, indicating that there is a high correlation between these two variables.

**Indirect Effect**

Indirect impact refers to the presence of (Innovative Ambidexterity) mediation among independent variable (Entrepreneurial Leadership) and the dependent variable (Project Success), i.e., Innovative Ambidexterity mediate association among Entrepreneurial Leadership and Project success. We can determine whether this hypothesis is supported or not based on bootstrap values. If the zero does not lie within



the upper and lower limits of the bootstrap, the mediation is said to exist. There is a high correlation between entrepreneurial leadership and project success since Bootstrap has a lower limit of .0436 and an upper limit of .1337, and employee turnover acts as a mediating factor.

**- Moderation Analysis**

Model 1 of the Process macro developed by Preacher and Hayes was further used to explore our hypothesis that Collaborative Culture Moderates' Entrepreneurial leadership and Project successfulness (2004). Accordance with hypothesis 5, the relationship among entrepreneurial leadership and project success is moderated by a high level of Collaborative Culture. Table 4.7 describe the details of Model 1 process macro which shows that regression coefficients of interaction term (EL x CC) and project success as ( $\beta = .1133$ , P-value=.0353 and  $\Delta R^2 = .1810$ ) whereas the P-value of interaction term is 0.03 (less than 0.05). Given these findings, we may claim that Collaborative Culture moderates the relationship between entrepreneurial leadership and project success. Additional evidence of a strong association was found in the fact that there was no zero value between the Lower Limit of bootstrap and the Upper Limit of bootstrap (as 0.1138 was lower and 0.3405 was higher).

DV	Effect of TL on TF		Effect of CC on TF		Effect of TL x CC on TF		Bootstrap results for indirect effects	
	$\beta$	t	B	t	$\beta$	t	LL 95% PGA	UL 95% PGA
ET	.0746	2.19	.0988	3.25	.1133	2.98	.1138	.3405

Un-standardized regression coefficient reported. Bootstrap sample size was 5000. Confidence Interval = 95%. N = 320. \* p < .05; \*\* p < .01; \*\*\* p < .001

Table 4.7: Moderation Analysis

**- Summary of Accepted/ Rejected Hypothesis**

We may conclude this chapter by saying that the recommended hypotheses in this research is endorsed by our results as correlation, regression, and process macro. Table 4.8 provides more information on these hypotheses.

Hypotheses	Statement	Status
Hypothesis 1	There is a significant and positive association among entrepreneurial leadership and project success.	Supported
Hypothesis 2	There is a positive association among innovation ambidexterity and project success.	Supported
Hypothesis 3	There is a positive association among entrepreneurial leadership and innovation ambidexterity	Supported
Hypothesis 4	Innovation ambidexterity mediates the association among entrepreneurial leadership and project success.	Supported
Hypothesis 5	The association among entrepreneurial leadership and project success is moderated by collaborative culture, which improves the relationship.	Supported

Table 4.8: Hypotheses Summarized Results

**- Discussion**

The outcomes of the proposed research paradigm are the subject of this chapter, which goes into great depth about them. With Innovative Ambidexterity as a mediator and Collaborative Culture as a moderator, this study sought to evaluate the relationship between entrepreneurial leadership and project success. In order to support the proposed theory, data was gathered from the Pakistani telecom sector, including companies like PTCL, Telenor, Ufone, and Mobilink. Employees in Rawalpindi and Islamabad who work for these firms were the subject of our investigation. This chapter explains the implications of hypothesis analysis by referring to relevant past studies in the same field as the one under investigation. Although there are many theoretical and practical implications, this chapter's argument was hindered by these issues and provided references and suggestions for future studies at the end. Results demonstrated that entrepreneurship and innovative ambidexterity are prerequisites to a successful project.

It was the primary goal of this research to get entrepreneurial leaders thinking about how to work together to make projects successful in project-based organizations like theirs. The research found a mediation link of innovative ambidexterity between entrepreneurial leadership, and project success, as well as the moderating effect of a collaborative work environment.

The theoretical framework was built on the premise that the variables in the study had certain correlations, which we hypothesized. Successful projects are more likely to achieve their goals if they have entrepreneurial leadership, which suggests that entrepreneurial leadership is critical to the project's success. Similarly, the data reveal mediation and association among Entrepreneurial leadership, Project success. Collaborative Culture has a significant impact on the relationship among entrepreneurial leadership, Project success, according to the study. For the most part, our findings are summarized in this section. Below you'll find an explanation for every hypothesis:

**Hypothesis No. 1**

**H1: Entrepreneurial leadership has a positive relationship with project success**

In our first formal hypothesis we have proposed that entrepreneurial leadership has positive and significant impact on project success. The hypothesis's results demonstrate same. The finding gives significant cognitive support for the study's hypothesis H1, which states that if entrepreneurial leadership

changes by one unit, the probability of project success increases. There is sufficient evidence to support the study's stated hypothesis.

The leader's inventive and successful leadership has a direct impact on the success of a business. As a mentor for the members of the group to follow, entrepreneurial leaders can harm their team's success by engaging in entrepreneurial activities ourselves (Renko et al., 2015). Entrepreneurial leadership has been defined as a style of management that emphasizes the discovery of new opportunities for enhancing creativity and the generation of new ideas in order to propel a company to success (Khairuddin et al., 2021). The hypothesis under examination has revealed that entrepreneurial leadership has a significant impact on project success, which our research has fully emphasized. The existence of entrepreneurial leadership in an organization and their leadership attributes have a positive and encouraging influence on the success of a project, as supported by literature and afterwards confirmed by our hypothesis. The working in this thesis found that project based organizations have Entrepreneurial leadership, Staff will be more creative and grow up with productive ideas, goods, and services when their bosses have a positive attitude toward their work.

1.2

### Hypothesis No. 2

**H2: There is a significant and positive impact of Entrepreneurial Leadership on Innovative Ambidexterity**

Hypothesis 2 depicts that entrepreneurial leadership has positive impact on Innovative Ambidexterity. The results of the hypothesis show that entrepreneurial leadership and Innovative Ambidexterity have a significant and favorable correlation. The regression output suggested that  $\beta = 0.254$  shows that there is the probability that one unit change in entrepreneurial leadership would increase Innovative Ambidexterity by 0.254. Entrepreneurial leaders have been found to not only generate new ideas, but also provide their teams with the tools and support they need to demonstrate their abilities in solving complicated problems and completing difficult tasks through the use of creative work practices (Cai, Lysova, Khapova, & Bossink, 2019; Zang & Li, 2017). Employees in project oriented businesses display creative work behavior and produce creative, inventive ideas under the guidance of entrepreneurial leadership, according to a new study. Theoretically, motivated employees are more likely to come up with new ideas, goods, and services if their bosses are encouraging their employees to do so.

1.3

### Hypothesis No. 3

**H3: There is significant and positive impact of Innovative Ambidexterity on Project Success.**

Innovative Ambidexterity has a large and beneficial impact on project success, as demonstrated by Hypothesis 3. Innovative Ambidexterity appears to be closely linked to project success, according to the study's findings. The regression output shows that  $\beta = 0.382$  indicating that change in one percent in innovative work behavior would result to improve the project success by 38.2%. Recent research by Leone and Schiavone (2019) found a direct correlation between Innovative Ambidexterity and project success. Improvement and execution of creative ideas that boost employees' creativity are at the heart of innovation (Vande Ven, 1986). In order to achieve project success, personnel need to demonstrate innovative work habits. Organizational performance improves as a result of workers' dedication toward innovation, according to numerous research (Renko, 2017; Akbari et al., 2020). The study's findings reveal that employees in project-based organizations are more likely to exchange creative, new, and innovative ideas, which in turn leads to novel work practices and, ultimately, to project success. Employees' innovative work behavior at the workplace, according to theory, helps the organization achieve its goals and achieve project success.

### Hypothesis No. 4

**H4: Innovative Ambidexterity mediates the relationship between entrepreneurial leadership and project success.**

Accordance with our fourth formal hypothesis, inventive ambidexterity intervenes the association between entrepreneurial leadership and project success. The data show that inventive ambidexterity intervenes the relationship between entrepreneurial leadership and project successfulness. An entrepreneurial leader provides a supportive and energizing work atmosphere in which all employees are encouraged to view innovation as one of their most important roles and to initiate the challenges that are essential to inventive accomplishments (Anggadwita et al., 2017; Holzmann & Mazzini, 2020). Employees are encouraged to be fully engaged in their assigned roles and to give of themselves emotionally, artistically and physically. Innovative employees are persuaded to elevate the importance of their work and develop the wisdom that such conduct has a beneficial influence on their implementation and achievement of objectives (Freeman & Siegfried, 2015).

As a result of entrepreneurial leadership, team members are encouraged to view innovation as a primary responsibility and to show their commitment to the interactions inherent in the innovation process. It's up to the employee to come up with new

and inventive ways of doing things to make the project a success. In addition, Renko et al., (2015) asserted that innovation aids businesses in completing projects successfully. Employees' innovative work behavior acts as a mediator between entrepreneurial leadership and project success.

This study reveals that entrepreneurial leadership creates a conducive climate and encourages the viewpoints of employees in project-based businesses so that the team members deliberate creation as one of their priorities, and they display their tenacity in the novelties. This can lead to people being more creative in their work, which can lead to success for the company. Theoretically, employees who are supported by their bosses to persevere through difficulty are more likely to generate inventive solutions.

#### 1.4 Hypothesis No. 5

**H5: collaborative culture moderates the relationship among entrepreneurial leadership and project success.**

According to Hypothesis 5 of our study, collaborative culture moderates the relationship between entrepreneurial leadership and project performance. This is our last formal hypothesis of this study which is also approved by our study findings as regression coefficients of interaction term (EL x CC) and project success as ( $\beta = .1133$ , P-value=.0353 and  $\Delta R^2 = .1810$ ) whereas the P-value of interaction term is 0.03 (less than 0.05). As a result of these findings.

Previous studies have found that collaborative culture has a favorable impact on projects, and it has been claimed that collaborative culture functions as a booster for entrepreneurial leaders and project inventiveness. According to Zhang, Edgar, Geare and Okane (2016) collaborative culture fosters mutual trust and understanding, resulting in project success for the team. A collaborative culture is always needed in project-based businesses since team members come from a variety of diverse cultures and contexts. Research shows that project-based organizations should have a strong collaborative culture.

#### - Conclusions

This research looked at the impact of Pakistani entrepreneurial leadership on project inventiveness. Research on the influence of entrepreneurial leadership and innovation ambidexterity and collaborative culture on project creativity was conducted using questionnaires administered to Pakistani project-based enterprises. In order to conduct this study, 300 questionnaires were issued, of which 274 were found fully filled and have enough information for the model to be evaluated. The framework was found to have adequate reliability and validity

based on statistical tests. According to the componential theory of creativity, creativity results from a combination of expertise, creative thinking, and motivation. It has also been found to be true that in Pakistani project-based firms, a collaborative culture moderates the correlation among entrepreneurial leadership and project performance.

#### - Research Implication

The study is significant both theoretically and practically which is further explained in detail in below paragraphs;

#### - Practical and Theoretical Implication

There has been no prior research looking at the impact of entrepreneurial leadership on project innovation in the Pakistani setting, therefore this study adds both theoretical and practical value. It is clear from the findings of this study that leadership styles that encourage and reward creativity and innovation are needed in Pakistani project-based businesses, given the country's scarcity of such skillsets. Entrepreneurial leadership and project creativity benefit from innovative ambidexterity, as research has shown. As a result, it is imperative that enterprises pay close attention to the importance of innovation ambidexterity. This study indicated that if an organization's leader has entrepreneurial tendencies, this will become an adept in both exploitative and explorative innovation, according to the findings.

In project-based enterprises, a project manager can develop an environment of creativity and invention that will aid in the uniqueness and originality of the projects he leads. As the project gets underway, the leader might stress activities that will help team members build their critical thinking skills. Entrepreneurial leaders are willing to take risks, and as a result, they will pay attention to and encourage their employees to do the same. This is how projects develop their originality. Employees should be encouraged to use their ability to explore new ways of accomplishing innovation and executing ideas by having procedures in place that enhance their understanding of existing products and resources. Leadership that is based on entrepreneurship inspires his employees to think beyond the box, which in turn leads to more creative initiatives since they are more open-minded.

As a result of this research, there are also some practical applications to be made. Entrepreneurial leadership is linked to project success, according to this study. This suggests that leaders took risks and listened to the unique ideas of their subordinates. He encouraged his team and stakeholders to think outside of the box. The project will be a success because of this. During the project delivery phase, the leader in project oriented

companies or groups ensure such accomplishments that enhance team members' innovative thinking.

Current also suggests that officials in the project oriented groups or companies are well known of how workers were encouraged to think and deliver effectively to the huge project delivery. This was accomplished by leaders involving them in all of the project's activities and fostering a positive work environment for their personnel. Entrepreneurial leadership can help an organization achieve the goals it has set for a certain project. A leader's role also includes enhancing the abilities of subordinates by ensuring that they are well-versed in the skills necessary to carry out their responsibilities to the fullest. It is only through entrepreneurial leadership that a company's employees can feel empowered and inspired to think creatively, which is essential for the success of a company's projects.

#### - Limitations of the Research

Despite the fact that we have encountered some restrictions when doing this particular research, we have made all effort possible to reach and adhere to the standards of professional study that are required for this type of working.

Delivery time and man-power are two common constraints. Due to time limitation, the working was processed by a cross-sectional time horizon rather than a longitudinal time horizon, which would require more time and cost. There's a good chance that an employee's degree of knowledge and skills will vary depending on the time duration.

Second, Sample size we have used in this study is limited and not enough as in this study only focuses on project-based businesses in Pakistan. As a result, the strategy has only been tested in Pakistani businesses. This study's conclusions would have been different if another setting had been included. Having a big sample size promotes the generalizability and applicability of outcomes in a broader way. Researchers in the future should take a more diverse approach to data collection, utilizing multiple Pakistani locations and organizations.

#### - Direction for future research

This study examines the relationship between entrepreneurial leadership and project creativity. It was primarily aimed at project-based companies as the focus. It is possible to undertake future research in a non-Pakistan situation. Using a bigger sample size, the same technique can be applied to research in other private and public organizations. The impact of entrepreneurial leadership on other variables like project complexity, which has yet to be thoroughly investigated, can be studied in the future.

In this study, collaborative culture served as a moderator between entrepreneurial leadership and project originality. However, a different moderator can be employed to examine the same model's response. The mediator collaborative culture was accepted in this model, but future researchers can examine it in greater depth in other areas of project management by considering the other important variable in current model.

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