Adaptation of entrepreneurial leadership in Pakistani high-technology SMEs to facilitate innovation: Insights from the ENTRELEAD model

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Abstract

The concept of entrepreneurial leadership has become increasingly significant in promoting innovation within various types of organisations and sectors. However, the field of entrepreneurial leadership is still in its infancy and lacks the necessary methodologies to assess the behaviours and traits needed to be an effective entrepreneurial leader. Most of the existing research has focused on larger firms, which means their findings may not apply to smaller organisations, like SMEs. Of those studies related to entrepreneurial leadership in the high technology sector, the majority have been quantitative-centric, primarily conducted in the U.S and Europe, with limited research based on developing countries, such as Pakistan and few dedicated at studying the theme from an SME perspective. Furthermore, there has been limited research investigating how entrepreneurial leadership can influence employee innovation, which arguably needs further theoretical clarity to understand this theme.

Therefore, this study investigated how entrepreneurial leadership style adopted in Pakistan's high-technology SME sector can facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model. A qualitative research approach was used a constructivist strategy, to collect the data gathered from conducting 20 semi-structured interviews with CEOs/leaders, and managers from 10 high-technology SMEs in Pakistan. A thematic analysis approach was used to interpret the data and to identify new and emerging themes. The interviews were guided by Renko et al.'s (2015) ENTRELEAD model, which served as a framework for understanding the characteristics and attributes of entrepreneurial leadership.

Through conducting a thorough analysis of the interview data, three key themes emerged as essential to promoting innovation, which were the promotion of empathy, enabling collaboration, and encouraging innovative behaviour and attitudes. These themes underscored the relational and empowering attributes of entrepreneurial leadership, which included the importance of trust-building, maintaining open channels of communication, and nurturing creativity amongst team members. This study extends Renko et al.'s (2015) ENTRELEAD model by highlighting new attributes, including empathy, collaboration, and intellectual stimulation as vital components in driving innovation within high-technology SMEs in Pakistan.

This study has significantly enhanced the theoretical framework surrounding entrepreneurial leadership by exploring the complex relational dynamics by offering new practical strategies to promote innovation. By focusing on the interactions between leaders and managers, the research identified critical characteristics that can influence an organisation's capability to innovate. Furthermore, the findings provide valuable, actionable recommendations for practitioners and policymakers to improve the innovative capabilities of high-technology SMEs in Pakistan.

This study included 10 Pakistani SME businesses, but for the research to establish a more generalised outcome, a larger number of companies would be needed. Future research should consider exploring these new emerging themes, but across additional different industries to validate the findings further and refine this study's entrepreneurial leadership framework.

Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by a specific reference in the text. No part of this thesis has been submitted as part of any other academic award. The thesis has not been presented to any other educational institution in the United Kingdom or overseas.

Any views expressed in this thesis are those of the author and in no way represent those of the University of Gloucestershire.

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Chapter One
Introduction

1.1 Introduction

The concept of entrepreneurial leadership is relatively new in the field of leadership, and there are various opinions about its conceptualisation. Leadership is an evolving field, but both entrepreneurship and leadership have given a deep understanding of how organisations and individuals perform in different environments. The concept of leadership is versatile in its process, as it includes identifying goals to support and motivate others to achieve those goals (Frankel & PGCMS, 2019). Feldman (2018) suggested leadership is a soft skill that enables the mind to think about how to act in a specific situation. In the last two decades, several theories have emerged in the leadership field focusing on the abilities of the leaders, such as transformational leadership, transactional leadership, charismatic leadership and inspirational leadership (Katz, Eilam-Shamir, Kark & Berson, 2018). Caceres' (2019) study claimed that there is not one specific type of leadership style, which can be said to be effective in all situations, but it depends on leadership ability to adapt the style required for the particular situation at any time.

Roufechaei and Argyropoulou (2016) argued that for optimal output and sustainability of a project, leadership matters immensely. Limitation of time and resources, and people management of diverse groups requires an effective style of leadership to avoid mismanagement and conflict at the workplace (Zhang, Cao & Wang, 2018). Leadership plays a key role in the success of projects, with the emphasis of leadership skills on influencing and directing the team, and the manager focuses on achieving goals.

Innovation is required to meet the demands of clients and to provide satisfactory customer service with limited resources in today's world (Newman, Schwarz & Cooper, 2018). Yang, Pu and Guan's (2019) study showed that at present, the average life span of small and medium-sized businesses is 2.9 years. Therefore, it is essential for businesses to have a competitive advantage in the market if they want to survive in the long-term, and this requires a creative and innovative approach (Arzubiaga & Alamo, 2019). Ramsgaard and Warren (2015) stated that the best leadership style for fostering innovation and business success is the entrepreneurial approach. However, leadership effectiveness depends on leaders' abilities to find solutions for complex problems and to achieve success in projects (Jacobs & Fleishman, 2000).

The challenges faced by businesses in a rapidly changing environment and fast-moving market of the world mean that companies are always looking for innovative and creative ideas for the purpose of gaining a competitive edge over their rivals, especially in the technology industry. In addition, there are many challenges faced by the economy, such as the environment, an ageing population, and competitors from all around the world. Furthermore, developing countries are rapidly joining the race and have proven to be decent competitors in the recent past. Businesses are trying to tackle these issues and to take advantage of the market through innovation (Montalvo et al., 2006); by generating new creative ideas and being more innovative, businesses try to have an upper hand in the market (Boons et al., 2013). To be more creative at the workplace, it is important that organisations encourage their staff to be more innovative and creative at work (Miron et al., 2004), by providing them with proper support and an environment. Previously, in academic research on innovation in businesses, researchers believed that companies can be at an advantage by adopting innovation (Smith, 2002).

In transition and developing economies, it is very challenging for small and medium-sized high-technology businesses to grow and survive in a competitive business environment. In such an environment, companies need to rethink their strategy according to the requirements of new technology and plan their business model according to the changes in technology to be more competitive. Innovation plays a big role for businesses to succeed and survive, especially in high-technology businesses. The biggest challenge faced by the leaders is to motivate their staff to leave the traditional way of performing tasks and to be more innovative by creating new and different ideas. Innovation is fostered in the organisation when it is being practised at all the hierarchical levels of the business, by promoting and creating new innovative ideas (Hou, Li & Yuan, 2018). There are many studies on staff innovative behaviour, which show that leaders' characteristics are vital in influencing staff performance and work behaviour.

According to researchers, innovation is a process which can be laid down in different phases by taking proper measures (Foxon et al., 2005). To be successful in innovation, businesses need to follow these steps: idea generation, idea realisation and idea diffusion (Boer & During, 2001). The main goal of innovation is to implement new, creative, innovative ideas, but it has been witnessed in many cases that many of the new ideas are never put into practice. The main reason for this seems to be a lack of trust in staff by their organisations. Staff behaviour at work plays a vital role in generating new innovative ideas and implementing them, and businesses need to rely on their staff.

Previous studies by De Jong and Den Hartog (2007) have shown a significant connection between staff innovative work style and leadership behaviour. Leaders can be an important source of influence for staff to be more innovative and can guide them through the process. For example, innovation can be achieved by setting clear goals and by giving constructive feedback; this helps the staff to be more creative in generating new innovative ideas at the workplace (Zhou & Shalley, 2003). In addition, leaders are the source of resources and support to implement new ideas (Dulebohn et al., 2012). For Fontana and Musa (2017), entrepreneurial leadership is vital in new businesses, as it plays a key role in influencing staff through communication to recognise opportunities and create value for stakeholders. Fontana and Musa (2017) posited in their study that entrepreneurial leadership style is crucial in the present business environment, where, without risk, nothing significant can be achieved. However, Caceres' (2019) study does not propose that the entrepreneurial leadership style is the most effective style to enhance the innovative behaviour of staff, as has been proposed in previous studies; rather, that not a single leadership style is best suited for all the situations, but successful leaders change their behaviours and adapt it according to the situation.

1.2 Background

The field of leadership is continuously developing and evolving. Furthermore, the area of entrepreneurship and leadership has a growing body of research spanning over decades, as it has provided a critical understanding of organisations and individuals in the way they perform in complex environments (Harrison et al., 2018). In addition, in recent years, the field of entrepreneurship has gone through development and has been a focal point for many researchers (Shane & Venkataraman, 2000; Shane, 2012; AR Thurik et al., 2024). In organisational settings, the top managers need to acquire a certain leadership style for the better performance of the organisation. It has been in discussion for a long the effectiveness of entrepreneurship in organisations, and big firms of today were SMEs at the start (Berry, 1998). Leitch and Volery's (2017) study showed that entrepreneurial leadership has a great influence on the success of the business through innovation, which further develops an interest in entrepreneurial leadership among researchers. Entrepreneurial leadership plays a vital role in driving innovation in a business. In the technology industry, innovation becomes more important as science is the driving factor, and it sets the pace for change. Thus, leadership plays an enabling factor to inspire innovation at the workplace among staff and to enhance performance (Park, Kim, Yoon, & Joo, 2017). There are numerous studies which show that leadership style has a great influence on innovation and work behaviour of the staff. However,

previous studies did not focus on how leadership style influences the staff's innovative behaviour (Fontana & Musa, 2017).

For innovation, it is very important to recognise opportunities and to have the ability to innovate for constant growth and competitiveness (Chen, Li, & Leung, 2016). Research by scholars has shown that the leadership style acquired by leaders has a great influence on innovation in high-technology businesses (Kodama, 2005). In a study by Tung and Yu (2016), good leadership support is shown to be very important in the creative process to bring innovation and creativity amongst staff at work. Furthermore, it is very important to explore which leadership style is most effective and encourages innovation. There are some studies which examine leadership styles to investigate which is the most effective leadership style to enhance innovation and to recognise the opportunity (Tung & Yu, 2016). However, in recent research, there is less evidence of the understanding of the leadership style of leaders, especially in SMEs (Zaech & Baldegger, 2017). A study by Chen et al. (2016) showed that the evidence is inconclusive when it comes to the association of staff innovative behaviour and leadership. It is evident that certain research has discovered a substantial correlation between an innovative leadership style and transformational leadership (Zaech & Baldegger, 2017), and some have found it weak or no relation (Chen et al., 2014; Sharifirad, 2013).

Freeman and Siegfried (2015) and Karol (2015) stated that there has been limited research conducted recently, such as Huang, Ding and Chen (2014) have discovered that entrepreneurial leadership style significantly impacts and stimulates innovation in businesses, although not much work has been done on how entrepreneurial leadership style influences the innovation process (Fontana & Musa, 2017). After all these years of work, the entrepreneurial leadership style is still a phenomenon under investigation (Yang et al., 2019; Ravet-Brown et al., 2024).

1.3 Problem statement

In developing countries, entrepreneurial activities are the driving force for the economic growth of the country (Nafukho & Machuma, 2010). SMEs have been a research interest recently as they play a great role in the economy of the country. In this study, the focus is on high-technology SMEs in Pakistan. Compared to other industries, the technology industry undergoes rapid changes because of competition and advancement in technology. Changes in the industrial environment bring up new entrepreneurial opportunities, and businesses with effective innovative attributes keep up with the technological changes and a competitive advantage in the market. In developed countries, the government focus on the technology

industry, as it plays a very important role in boosting the growth of the country (Link & Scott, 2010).

Zaech and Baldegger's (2017) study showed that in start-ups, leadership is vital for the success or failure of the business. Moreover, leadership is very important in high-technology businesses because of the complex environment, and it plays a vital role in opportunity recognition and generating new ideas (Chen et al., 2014). Although the field of leadership is an evolving concept and continuously developing, there is a large body of work by researchers which shows that the entrepreneurial leadership style stimulates innovation and helps to recognise the opportunities in the most competent and turbulent environments in SMEs and new businesses (Freeman & Siegfried, 2015). However, there is little research on the influence of an entrepreneurial leadership style on staff's innovative conduct and how it impacts corporate performance (Fontana & Musa, 2017). Research available on entrepreneurial leadership style and its influence on the innovative behaviour of the staff is limited (Huang, Ding, & Chen, 2014). Leadership has gained the attention of researchers in recent years, but entrepreneurial leadership remains less focused on developing countries (Chen, 2007; Harrison & Burnard, 2018). Furthermore, most research available on entrepreneurial leadership style and the way it influences staff behaviour and innovation in businesses has been conducted in the developed world, most notably in the U.S and Europe (Currie, Humphreys, Ucbasaran & McManus, 2008; Harrison & Burnard, 2018).

The field of entrepreneurial leadership as a concept has become increasingly relevant as a potential means to promote and encourage innovative processes and thinking in business organisations (Fontana & Musa, 2017). Seventeen years ago, a study conducted by De Jong and Den Hartog (2007) concluded that leadership and innovative work behaviour have a strong relationship with an entrepreneurial leadership style, which can also facilitate staff to adopt an innovative mindset and work ethos. Whilst De Jong and Den Hartog's (2007) research is informative, the study does not provide a conclusive association between leadership style and the way businesses are influenced. Addressing this issue, Mainemelis et al. (2015) have shown that leaders can stimulate creativity in business practices and thinking through leadership style, which can support the development of an atmosphere that fosters innovation (Afsar et al., 2018; Shafique et al., 2020). To achieve these innovative activities in a business setting, Boer and During (2001) contended that innovation is a process executed through different phases, which include concepts, such as idea generation, idea realisation and idea diffusion. However, for these phases to be effective, Taran, Boer, and Lindgren (2015) noted that the leadership style

adopted needs to be appropriate, and dependent on, amongst other aspects, such as the business's acceptance of innovation. For writers such as Renko (2018) and later Cai et al. (2019), while acknowledging there is an array of different leadership styles, for example, transactional leadership, participative leadership, transformational leadership, and entrepreneurial leadership approach, can provide the means to value creation through the motivation of staff to engage in creative activities. However, to date, this topic has only been investigated by a few studies (e.g. Miao et al., 2018; Akbari et al., 2020), and for Bagheri et al. (2020), there is very little published material in relation to SMEs in the high-technology service sector. A single theoretical framework was used in past studies to either evaluate the direct connection between staff innovation behaviour and entrepreneurial leadership (Newman et al., 2018) or to elucidate the connection (Bagheri et al., 2020). Hughes et al. (2018) call for scholars in a recent study that researchers look at conflicting mediating processes concurrently to gain systematic and thorough knowledge of how leadership influences staff innovation behaviour. Given the dearth of research on the connection between entrepreneurial leadership and staff innovative behaviour (Bagheri et al., 2020), therefore, theoretical clarity is required in order to understand the methods and procedures by which entrepreneurial leaders might affect the innovative behaviour of their workforce (Lee et al., 2020; Newman et al., 2018).

Although not related specifically to SMEs, Freeman and Siegfried (2015) studied entrepreneurial leadership style in the high-technology sector, concluding that an appropriate style can promote innovation to create a positive, creative environment. This is particularly relevant for high-technology sector SMEs, who are invariably characterised as needing staff who are creative and innovative in order to remain competitive (Akbari et al., 2020).

Of those studies related to entrepreneurism in high-technology SMEs, the majority of studies have been quantitative, primarily conducted in the U.S and in Europe (Currie, Humphreys, Ucbasaran & McManus, 2008; Baig et al., 2021), with limited research based in Asia. Furthermore, in previous studies, the focus was on big firms; however, there is no significant research available on entrepreneurial leadership style in project-based companies. This generates a need for greater insights in the high-technology sector, and in particular from a Pakistan perspective, which is particularly important due to the increasing export earnings generated by this sector (Javed, 2020; World Bank, 2021). This has led to writers, including Naqvi and Bashir (2015), calling for further research into how entrepreneurial leadership can promote greater innovation in this sector. More recently, Hassan et al. (2018) highlighted the increasing economic importance of high-technology-based SMEs to the Pakistani economy.

Furthermore, there is a unique and unusual feature of high-technology SMEs in Pakistan, which is a result of their cultural and economic status, and this has led to a very healthy SME sector. However, it is subject to the fact that many of these SMEs are subcontractors, which makes them dependent upon and constricted by their customers. This has implications for their leadership and management, and the way people behave inside these businesses. Thus, it is important for this study to consider the special features of SMEs, such as the size of the business, resources, flexibility, and implications of knowledge management (Durst & Edvardsson, 2012). To address this gap, this study investigates the extent to which an entrepreneurial leadership style can influence the innovative operational activities of managerial staff working in Pakistani high-technology SMEs and examines the alignment between entrepreneurial leadership style and innovation in a business. In achieving this, the study will draw on Renko et al. (2015) ENTRELEAD scale, which advocated asking eight specific questions to gather data related to the perceptions of those who are directly influenced by an entrepreneurial leader. The research will contribute to the knowledge about entrepreneurial leadership and the way that a leadership style can influence and enhance operational innovation in high-technology SMEs, using Pakistan as the location of interest.

Furthermore, the literature review will be closely monitored to identify the gaps in knowledge are, and what needs to be done to overcome them. The literature review will also help in building the narrative for the study.

1.4 Aim and objectives

The study aims to investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SME sector to facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model.

This study aims to investigate the impact of entrepreneurial leadership style in fostering innovative behaviour among staff in high-technology SMEs in Pakistan. The study critically analyses the current theoretical debate on entrepreneurial leadership style to understand whether entrepreneurial leadership style can promote innovative practices. While the literature review examines the conceptual similarities and differences between entrepreneurial and transformational leadership, the primary aim and objectives of this research are centred on exploring the role of entrepreneurial leadership in promoting innovation within Pakistan's high-technology SMEs. Though the theoretical discussion shapes the conceptual framework, the

conceptual similarities and differences between entrepreneurial and transformational leadership do not represent the direct focus of this study. The main objectives of the study are:

1. To critically indicate the current theoretical debate on how entrepreneurial leadership style can promote innovative practices.
2. To critically analyse from the qualitative data that leaders in the Pakistan high-technology SMEs used entrepreneurial leadership style to facilitate innovative practices.
3. To critically evaluate from the findings as to the characteristics and attributes as to promote and enable innovative practice.
4. To develop a theoretical entrepreneurial leadership framework based on Renko et al.'s (2015) ENTRELEAD model.

1.5 Why SMEs?

SMEs are worthy of scholarly attention because of their influence on the economic growth of a country. SMEs are the backbone of any major economy in the world, and they create the most employment opportunities in the market. SMEs' contribution to a country's GDP is positive; in comparison to larger or multinational companies, SMEs create more job opportunities and contribute towards the export of local products (Aremu & Adeyemi, 2011). In the UK digital economy, three million people are employed according to a Tech Nation report (UK Government, 2020a), Furthermore, the UK has the largest technology sector in Europe (UK Government, 2020a), which shows the significance of SMEs in terms of economics. In addition, in Pakistan, high-technology SMEs are the main source of export earnings, which is increasing each year. However, the survival of SMEs in the market is challenging (Pikkarainen et al., 2011) discussed in their study that innovation plays a significant role in the survival of SMEs. Innovation demands effective leadership; in SMEs, leadership has strategic importance because of the non-existent separate research and development facilities due to limited resources (Love & Roper, 2015).

1.6 Significance of the study

Novelty is the demand of any scholarly work. In previous literature, it has been proposed that entrepreneurial leadership style is the most effective method to enhance creativity and innovative staff behaviour (Bagheri, 2020). Research knowledge available in the field of entrepreneurial leadership is scarce and relatively limited to larger firms in developed

countries. Baldegger and Gast (2016) claimed that despite the fact that an overwhelming base of researchers recognised the importance of entrepreneurial leadership style in the success of an organisation, limited research has been conducted in comparison to other leadership styles. To the best of the researcher's knowledge, Pakistan SMEs, especially in the high-technology sector, are an untapped area. No such study has been conducted in the past; therefore, the lived experiences of the staff are the primary subject of this phenomenological investigation to understand their perceptions of the leadership style adopted by their leaders. This study will help to develop a theoretical framework to inform practitioners and organisations such as the Pakistan Small and Medium Enterprise Development Authority (SMEDA) on promoting innovative practices. This study will extend the existing body of knowledge by exploring comprehensively different entrepreneurial leaders' behaviour and how innovative behaviour is stimulated in staff. The geographical focus of the study will contribute significantly because previous studies on the innovation of SMEs are mainly focused on advanced and knowledge-driven economies.

1.7 Summary and thesis structure

Rapid changes in the global business environment present new challenges and difficulties for established businesses, and it is more challenging for new businesses to survive in such a competitive environment. It is important for the survival of new ventures and SMEs that founder-CEOs should adopt entrepreneurial behaviours that drive innovation in the business, while creating an atmosphere that is conducive to greater wealth creation and creating opportunities in order to support the development of the businesses (Fontana & Musa, 2017). Starting a new business is an authentic act that entails expressing one's true values and views and fostering a pleasant atmosphere, claims Sims et al. (2017), both of which are essential for businesses to thrive in the fiercely competitive global business market and continue to be adaptive through constant innovation. Leaders are key to the innovation process because they provide the resources and encouragement needed to put innovative ideas into practice (Dulebohn et al., 2012). Fontana and Musa (2017) contended that entrepreneurial leadership is essential in new businesses because it influences people via communication to see possibilities and adds value for stakeholders. Fontana and Musa (2017) argued that an entrepreneurial leadership style is crucial in the current corporate climate, where nothing major can be accomplished without risk. Thus, investigating the lived experiences of entrepreneurs and managers of SMEs in Pakistan regarding entrepreneurial leadership style could benefit the SMEs, nation, and region.

The thesis follows a traditional format. The research history is introduced and explained in the first chapter. The first chapter outlines the aim of the research and objectives, justifies the originality of the study, and details how it advances academic theory and practice. It provides an overview of the research, and the organisation of the thesis is then described. The second chapter provides a thorough critical analysis of the most recent research on entrepreneurial leadership and how it influences creativity and innovation in SMEs. The research questions and conceptual framework based on the information gleaned from the literature review are presented in the chapter's conclusion. The third chapter discusses the research approach, the study's research strategy, and the chosen qualitative data collection and analysis method to explain the entire research methodology. The interview tool is presented in depth, along with other relevant topics, including data validity and ethical implications. The fourth chapter describes the findings, and emergent themes of the data analysis are initially identified in this chapter. The data analysis and key conclusions are then presented in a methodical manner, together with the relevant debate and theoretical reflection. The findings are thoroughly discussed in the fifth chapter, and their connections to the literature are made. Chapter six presents the objectives of the study and how they are achieved. Chapter six also considers the consequences of the results for theory and practice. The conclusion in the sixth chapter provides an analysis of the entire study, including its primary theoretical and practical contributions, limits, and suggestions for improvements and future research.

Chapter Two
Literature Review

2.1 Introduction

This chapter will critically review the current debate and relationship between two core concepts associated with leadership and entrepreneurial characteristics, that of transformational leadership and entrepreneurial leadership. In achieving this critical review, the chapter will draw on core research articles to determine the debate and central features associated with entrepreneurial characteristics and leadership. The chapter will provide an in-depth insight into the current debate as to the conceptual overlap and distinction between entrepreneurial leadership and transformational leadership. In presenting this, the chapter will set out the conceptual work which defines what entrepreneurial leadership is compared to transformational leadership, which will include the differences in strategically oriented behaviours such as opportunity recognition (Harrison et al., 2020; Leitch & Volery, 2017).

The chapter will also present the wider leadership debate and literature regarding its appreciation of any distinction and potential overlap between these two conceptual theories. In presenting this, the intention of this chapter is to provide an in-depth analysis of the core consistent components of the entrepreneurial leadership models as to what facets and characteristics are relevant when understanding the interpersonal influence process of leadership in achieving shared goals.

The chapter will then provide an analysis of the interpersonal understanding of leadership by drawing on two mainstream core leadership theories, that of Gupta et al. (2004) model of entrepreneurial leadership and then Renko et al. (2015) who introduced the ENTRELEAD model to measure entrepreneurial leadership skills. In presenting this the chapter will critically review the core characteristics and those aspects of leadership which are seen as critical. This will also include how entrepreneurial behaviour can be assessed, as much of the current research has been predominantly quantitative. This aspect will be investigated further as to whether the existing assessments remain relevant, if there are overlaps between the two core concepts and whether there are gaps in existing knowledge of these two mainstream leadership theories. The chapter will conclude with a presentation of the conceptual theoretical framework to summarise the outcome of the literature review, together with the research questions which will inform the main study. The chapter will commence with a review of the background of

entrepreneurial leadership, commencing with the background debate associated with leadership and what constitutes this concept.

2.2 Defining Leadership

In the field of leadership, this has been extensively researched, which has ranged from exploring and consulting the topic from both academic and business perspectives (Pfeffer, 2015). However, as noted by Northouse (2019) and Yukl and Gardner (2020), even though still an array of different definitions that have attempted to capture the essence of leadership. From a generalised perspective, the Oxford Dictionary (2010) defines leadership as the "action of leading a group of people." This definition indicates that leadership is directing individuals to channel their efforts to achieve a shared objective or goal. To achieve this, the purpose of leadership is the enable meeting these objectives through the use of existing resources and knowledge. In developing this theme further by Yukl and Gardner (2020, p. 23) defined leadership as, "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives." A key writer in the field of leadership, Drucker (1954) suggested that leadership is a creative management skill and emphasised organisational capabilities of having an awareness of the environment and a vision, adding that leadership is the ability of a leader to lead in their job role. In contrast, Northhouse (2019) considered leadership as influencing a group of individuals to have one lead goal, while Kotter (1990) proposed that leadership and management involve two different processes. The first process was associated with leadership being concerned with influencing, inspiring, motivating and directing individuals, and the second aspect acting in a managerial role focused on planning, organising, executing and solving problems. These authorities in leadership indicate that leadership is multifaceted but does have similar characteristics, such as influencing and motivating individuals and groups.

2.3 Leadership and SMEs

Researchers, including Andersson and Tell (2009) and Franco and Matos (2013), indicated that the growth and success of SME's are dependent on effective leadership. While in a large organisation, the number of staff members who are directly influenced by the leadership team or senior executives tends to be limited due to the hierarchy structure, in a SME, the employee tends to be more personally influenced by owner-managers due to flatter organisational

structure (Lubatkin et al., 2006; Mihai, 2015). Therefore, the leader's traits of the individual in an SME can directly influence the motivation, behaviours, and attitudes of the workforce (Andersson & Tell, 2009). Andersson and Tell (2009) noted that small business owners tend to regularly rotate between operational and strategic leadership, where the vision and entrepreneurial practices are combined with operational performance. For Franco and Matos (2013), in investigating this, indicated the connection between leadership behaviour and SME success, which earlier Gibb (2009), noted that a SME leader's decision, for example, to delegate responsibilities to their followers frequently reflects their personal preference, but the ultimate decision can either benefit or limit the success of the SME. Cao, Simsek, and Zhang (2010) indicated that SME leaders' functions tend to be strategic and operational, which supports Andersson and Tell's (2009) notion, but added that the preference is often based on their background, knowledge, and personal preference. In illustrating this preference, Hayton (2015) focused on whether the SME leaders were focused on maximising profits. The outcome of Hayton's (2015) study was that SME executives frequently based their strategic decisions on their personal preferences, for example, the level of risk tolerance or the preparedness to permit autonomy and freedom to innovate.

Entrepreneurial leadership is a fundamental concept that permits academics and businesses to understand the growth of SMEs. Harrison and Leitch (2018), Leitch et al. (2013), Ng and Kee (2018), and Renko et al. (2015), have independently emphasised the importance of entrepreneurial leadership in the growth of SMEs. The growth of SMEs is dependent on various characteristics such as the owner's intentions, ambitions, competencies, regional resources, infrastructure, and government support mechanisms. In analysing these characteristics, Addy et al. (2024) have studied these attributes and their influence on SMEs' growth. Gherhes et al. (2016) suggested that the entrepreneurial leader's personal attributes, ability to grasp opportunities and creativity are key characteristics for the sustained survival of a business. Similarly, Janssen (2006) argued that only the entrepreneurial leader's expertise and demographics influence business growth, while motivation, psychological traits, an entrepreneurial family, and the existence of a management team have on achieving business success.

Gherhes et al. (2016) identified several characteristics which can influence decision-making and subsequent performance for an entrepreneurial leader's enterprise. These attributes include the entrepreneurial leader's experience, human and social capital, disproportionate reliance on

the leader, and time to develop resilience before business failure ensues. Adaptability and flexibility are crucial characteristics of entrepreneurial leadership, allowing organisations to effectively navigate shifting market conditions, customer demands, and competitive challenges. Entrepreneurial leaders need to be agile and responsive to changing circumstances, modifying their strategies, tactics, and priorities as necessary to remain aligned with their goals (Joel & Oguanobi, 2024). The interpretation and consequent behaviours of the entrepreneurial leader are the common thread through all these factors that influence success.

The growth of SMEs is driven by the efforts of owner-managers to achieve their desired business outcomes. Gray (2000) and Maki and Pukkinen (2000) studied the drivers of small business growth and identified three criteria for small business growth: intention, ability, and opportunity to grow. Gray's (2000) and Maki and Pukkinen's (2000) research suggested that understanding these three drivers and their associated inhibitors is essential for achieving the owner's growth ambitions. Perren's (1999, p. 369) research found that the desire for success, where success is closely tied to business growth and tends to be financially oriented, is "vital in such small firms, being an essential growth driver." This is supported by Walsh and Anderson (1995), who argued that founding leaders possess more innovative problem-solving styles than non-founding leaders. Founding leaders also exhibited higher levels of entrepreneurial self-efficacy (Chen et al. 2020). Entrepreneurial leadership involves various essential components, such as establishing a vision and mission, taking risks and fostering innovation, being adaptable and flexible, building teams and motivating them, and making decisions and solving problems (Udo et al., 2024). By mastering these components, leaders can motivate and enable their teams, leading to organisational success (Joel & Oguanobi, 2024).

From above it can be concluded that entrepreneurial leadership is critical for the growth and survival of SMEs. The entrepreneurial leader's aspirations, intentions, competencies, and behaviours, together with regional resources, infrastructure, and government support mechanisms, are all attributes that can influence SME growth. The drivers of small business growth must be understood for the owner's growth ambitions to be achieved.

2.4 Pakistani SMEs

In Pakistan, there has been a rapid increase in SME start-ups, indicating a culture of innovation. As a business entity, SMEs have contributed to economic growth by contributing more than

90% of businesses worldwide in Pakistan (Alam, Shopovski & El, 2024). Najeeb's (2021) research informed that 5.2 million SMEs operate in the business sector of Pakistan. Like in many developing countries, Pakistan has become heavily dependent on the SME sector to reduce poverty and uplift the living standards of the people (Shah, 2018). Today, SMEs in Pakistan represent more than 90% of private businesses and employ 78% of the country's workforce (Shah, 2018). In the last twenty years, the Pakistan government, recognising the importance of SMEs, has established a small and medium enterprises development authority, known as SMEDA to enhance this business type. This has led to microfinance banks being established to finance this sector, together with commercial banks establishing specialised departments to finance the SME sector (Amir et al., 2020).

However, the SMEs in Pakistan have been influenced by various restrictions and regulatory requirements. Khawaja (2006), for example, pointed out that the Pakistan government policies are not completely conducive to the growth of the SME sector, with the government still focused traditionally on institutions and banks on large organisations. These policies of both the government and financial institutions have resulted in a lack of resources and strategies, leading to a workforce which has been seen as neglected (Khawaja 2006; Mustafa & Khan, 2005; Rohra & Panhwar, 2009; Alam, 2024). These restrictions are placing significant constraints on the ability of SMEs to explore and implement innovative solutions, thereby impeding their progress in adopting and utilising advanced technologies (Arshad et al., 2024). However, the success of SMEs is often dependent on innovation, having a highly skilled workforce, and knowledge management.

From the above discussion, it can be concluded that SMEs play a vital role in the economy of Pakistan. However, despite their crucial role, SMEs face several challenges that hinder their growth and sustainability. One of the significant challenges faced by SMEs in Pakistan is the lack of access to the latest technology (Ullah & Qureshi, 2019). Due to limited resources, SMEs often fail to invest in the latest technological advancements, which limits their productivity and competitiveness. Many SMEs also struggle with insufficient financial resources, which makes it difficult for them to expand their operations or innovate (Khalique et al., 2015).

The inadequate industrial infrastructure in Pakistan is another significant challenge faced by SMEs. The lack of proper infrastructure, such as transportation and communication facilities, hinders the SMEs' ability to access raw materials and market their products (Dar et al., 2017).

Linked to this is the mismanagement of intangible capital, such as intellectual property, which also poses a significant challenge for SMEs. Another significant challenge faced by SMEs is the unskilled workforce. Due to the limited resources, SMEs often fail to provide training and development opportunities to their employees, which results in an unskilled workforce. Additionally, outdated production facilities and poor management practices also hinder SMEs' growth and competitiveness (Khalique et al., 2015).

These challenges can result in many SMEs struggling to survive beyond the first few years of operation (Khalique et al., 2015). Khalique et al. (2015) indicated that the survival rate of SMEs in Pakistan is quite low, which highlights the need for policymakers to address these challenges to ensure the growth and sustainability of SMEs in Pakistan. Despite being recognised as a crucial part of economic development and prosperity in Pakistan, SMEs are not currently realising their full potential. For Bari et al. (2005), the progress of Pakistani SMEs is not up to their real potential, and this is a major concern, as SMEs are considered the backbone of the economy. The lack of innovation in SMEs can be attributed to the leadership style of entrepreneurs. Research by Berdar (2024) suggested that entrepreneurs often fail to create an environment that fosters innovation. This may be due to a variety of factors, such as risk aversion, resistance to change, or a focus on short-term goals at the expense of long-term innovation strategies. The lack of entrepreneurial leadership that is prevalent among SMEs in Pakistan has been identified as a key factor contributing to this issue. Rohra and Panhwar (2009), Ahmed et al. (2010), and SMEDA (2021) have all highlighted the need for improved entrepreneurial leadership to address this problem. However, despite the widespread recognition of the importance of entrepreneurial leadership, there is still a lack of understanding about the various reasons that can be influential, particularly in developing Asian countries like Pakistan. Bodla and Nawaz (2010), Tipu et al. (2012), and Wahga et al. (2018) emphasised the importance of identifying more reasons that may affect entrepreneurial leadership in developing Asian countries.

Against this backdrop, this study intends to address this gap by investigating the relationship between strategic, motivational, communicative, and personality factors of entrepreneurial leadership among CEOs or leaders of SMEs in Pakistan. By exploring these reasons, this study will provide a more comprehensive understanding of the challenges faced by SMEs in the country and offer insights into the steps that can be taken to foster more effective entrepreneurial leadership among SMEs in Pakistan.

2.5 Background to entrepreneurial leadership

As a concept, entrepreneurial leadership tends to focus on those individuals who set out to establish a new enterprise (Hensellek et al., 2023) and to assist in this process by gathering around them a group of like-minded followers or employees to attain their vision (Liu et al., 2022). However, theoretically, entrepreneurial leadership has led to an array of different conceptual and practical approaches being proposed (Clark et al., 2019), which range from the procedural examination of leadership of entrepreneurial ventures (Freeman & Siegfried, 2015), to strategic considerations of the value of entrepreneurially-minded of management (Karol, 2015; Niemann et al., 2022), through to studying the behavioural unique attributes associated with their leadership style (Bagheri & Harrison, 2020). This array has also led to the emergence of associated leadership models including the proposal of various operationalizations of leadership styles, including empowering leadership (Cheong et al., 2019) or transformational leadership, sometimes denoted as TL (Bass & Avolio, 1997; Derue et al., 2011; Hemshorn de Sanchez et al., 2022), which had led to confusion and often misunderstanding the essential attributes associated with entrepreneurial leadership. This has also led to confusion as to what constitutes an entrepreneur, with writers including Niemann et al. (2022) calling for a clear understanding as to the key attributes (Liu et al., 2022; Tarí et al., 2023) as to the ability to gain the human and non-human resources needed for success (Brush et al., 2001). To achieve this, Faridian (2023) has called for research to continue to determine what attributes are needed for an entrepreneur to be successful. In proposing this, Faridian (2023) and Antonakis and Autio (2014) contended that entrepreneurial leadership cannot be grouped with other existing theories, such as transformational leadership, as advocated by Vecchio (2003), but rather the concept is unique and has distinct attributes. The investigation of this question still remains unanswered (Clark et al., 2019; Clark & Harrison, 2019; Faridian, 2023).

This debate has led to calls including from Antonakis and Autio (2012), for the integration of entrepreneurial leadership to become more integrated with existing leadership theories, with potential alignment with more mainstream leadership constructs such as the Full-Range Leadership Theory or FRLT (Bass, 1985; Bass & Avolio, 1996) or transformational leadership. However, transformational leadership and its parent theory, the FRLT, have advocated that leadership styles are a composition of concrete, visible behaviours and saliently displayed attributes, together constituting “a process whereby an individual influences a group of

individuals to achieve a common goal" (Northouse, 2019, p. 43). But for key writers including Bagheri and Harrison (2020) and Renko et al. (2015), the attributes associated with entrepreneurial leadership cannot be fully conformed to these theoretical frameworks, even though the concept does draw considerably on transformational leadership theory as proposed by Bagheri and Harrison (2020), Gupta et al. (2004), Renko et al. (2015).

Reflecting on this ongoing debate, there is sufficient reason to study and understand theoretically what constitutes, firstly, entrepreneurial leadership theory and then identify those differences and similarities associated with transformational leadership, as advocated by Deng et al. (2022) and Reid et al. (2018). However, before proceeding, as noted by Antonakis and Atwater (2002), there are conceptual differences as to the theme of leadership compared to leadership in an organisation (Antonakis & Autio, 2014). For example, writers including Renko (2017) and Bagheri and Harrison (2020) pointed out that traits such as recognising opportunities or effective recruitment are not directly connected to the leadership of employees, which do indicate key differences between the concepts of transformational and entrepreneurial leadership. There is also the acknowledgement that there are behavioural similarities between the two leadership traits, which indicate that an entrepreneurial leader's ability as to motivate their followers or employees (Gupta et al., 2004). However, while there might be some similarities with established leadership theory, for Mehmood et al. (2021a), entrepreneurial leadership is considered to represent a new construct suitable for capturing leadership today. Although there are critics of this perspective of a construct (Vecchio, 2003; Shaffer et al., 2016), others, such as those who contend there are differences, but the question is to what extent? To understand this debate, the next section will focus on the theoretical background to leadership, commencing with transformational leadership.

2.6 Transformational leadership

The existing literature on leadership has been thoroughly researched (Klijn et al., 2022), which is seen as being categorised as mature (Cogliser & Brigham, 2004). This can be seen with the extensive studies which have researched the Full-Range Leadership Theory (Bass, 1985; Burns, 1978), which has become recognised as a central leadership theory (Gardner et al., 2020). As a concept, full-range leadership theory agrees that the leadership model is based on the interaction between followers or employees and leaders (Bass & Avolio, 1994). This interaction between the two parties constitutes an influence process, where the leader is an

agent, while the employee or follower is the objective, and the motivating of the individual follower is focused on achieving a shared goal (Banks et al., 2022). This conceptualisation can be seen as being *leadership in* the organisation, as opposed to being more strategically oriented as to *leadership of*. This indicates that the conception of leadership is therefore focused on behavioural changes, through the interpersonal influence of the entrepreneur.

Transformational leadership is seen as an active and effective style of leadership from the perspective of full-range leadership theory (Żywiołek et al., 2022), compared to other concepts, including charismatic leadership (Antonakis et al., 2016; House, 1977). Part of this perspective is that transformational leadership has four key dimensions, which are based on the work of Avolio (2010), which has now become established as a reliable leadership model. These four dimensions include the *idealised influence,* which represents how a leader who is considered principled, moral, and trustworthy. This includes how the leader displays a sense of purpose and power while reassuring, guiding, and enabling their employees and followers. The next dimension is *inspirational* motivation, which is related to motivating the followers or employees through engaging and challenging the individual to work towards a shared vision and future. The third dimension is *intellectual stimulation*, which is the ability of the leader to consider problems as being different, novel, and unusual, but also effective. The last and fourth dimension is *individual consideration,* which ensures that the leaders focus on providing attention to their followers, assisting in their development, listening, mentoring, and nurturing (Avolio, 2010).

For Wang et al. (2011), if these four dimensions are combined, the outcome can be effective in several fields of interest including the area of digitalisation and information services (Oberer & Erkollar, 2018), empowerment (Cheong et al., 2019) and servant leadership (Eva et al., 2019). This perspective of Wang et al. (2011) has been supported by a series of other authors, Deng et al. (2023), Judge and Piccolo (2004), and Lowe et al. (1996), who have also indicated that transformational leadership can enhance and stimulate organisational citizenship behaviours (e.g. Khan & Khan, 2022), performance (e.g. Prabhu & Srivastava, 2023), attitudes, and employee satisfaction (Alwali & Alwali, 2022). Interestingly, transformational leaders have reportedly indicated that this form of leadership can facilitate followers' not only improvement in performance but also help the followers or employees to enhance their creativity (e.g. Żywiołek et al., 2022) and innovation (e.g. Begum et al., 2022). These two characteristics of innovation and creativity are essential for entrepreneurship (Gilad, 1984). In

relation to the four dimensions, inspirational motivation can be used to boost the intrinsic motivation of the followers, which can facilitate creativity (Amabile, 1988; de Jesus et al., 2013). For Sosik et al. (1998) intellectual stimulation can engage and promote employees' or followers' ability to be critical while promoting exploratory thinking, therefore potentially increasing innovation and creativity (Thuan, 2020; Yasin et al., 2014), therefore improving a business or an enterprise's performance (Overstreet et al., 2013).

It should be acknowledged that transformational leadership remains one of the mainstream leadership styles, which is often applied in entrepreneurship (e.g. Fries et al., 2021; Luu, 2023; Soomro & Shah, 2022). This leadership approach is often employed to predict both entrepreneurial creativity (Gumusluoglu & Ilsev, 2009) and performance (Harsanto & Roelfsema, 2015). At the same time, three of the most key means to assess entrepreneurial activity, Bagheri and Harrison (2020), Gupta et al. (2004), and Renko et al. (2015) have based their studies on the relied transformational leadership as to the conceptualization stages, including around visionary leadership, under the category of inspirational motivation, and encouraging creative thinking, grouped under intellectual stimulation. Finally, researchers still use transformational leadership to create and devise the instruments, such as the multifactor leadership questionnaire originally proposed by Bass and Avolio (1996), which measures the leadership of entrepreneurs. Interestingly, which is an important consideration for this study, there have been only a few studies which have compared these two concepts simultaneously (Cai et al., 2019; Lee et al., 2020; Newman et al., 2018), but the outcome and contributions have yet to be agreed.

2.7 Entrepreneurial leadership

The concept of entrepreneurial leadership is important for national and global economies (Carlsson et al., 2013; Van Praag & Versloot, 2007). However, the academic debate which exists is related to what are the entrepreneurial attributes and characteristics, which including whether traits such as risk-taking, innovation, and opportunity recognition are important (Carlsson et al., 2013), as the original thoughts associated with entrepreneurial activity was one of being a risk-taker (Knight, 1921), a creator of opportunities (Schumpeter, 1942), and providing potential economic instability through their actions and activities (Kirzner, 1973). All these traits emphasise that an entrepreneur is a leader who possesses certain leadership characteristics and attributes. More recently, these original attributes have been updated to

include effectuation (Hubner et al., 2022), and knowledge spillover (Iftikhar et al., 2022), as means to holistically represent entrepreneurial activities. In illustrating this, Sarasvathy (2008) argued that entrepreneurs are innovators first, which is often associated with characteristics such as being charismatic or visionary. However, this perspective of Sarasvathy (2008) has been changed by other writers as to what constitutes an entrepreneur mindset, which has included Kuratko et al. (2021) and Hikkerova et al. (2016), which for Munir et al. (2019) are a collection of traits, and not simply core attributes. However, over the past two decades, this perspective has been challenged and expanded to encompass a broader understanding of entrepreneurship (Landström, 2020). This led to Shane and Venkataraman (2000, p. 218) to contend that the area of study includes determining opportunity sources, as well as the ability to discover, evaluate, and exploit these opportunities, then enabling and promoting others to also discover, evaluate, and exploit new ideas and concepts.

This contention can be seen in the different definitions associated with entrepreneurial leadership. For example, Cunningham and Lischeron (1991) who defined entrepreneurial leadership as involving setting clear goals, creating opportunities, empowering people, preserving organisational intimacy, and developing a human resource system. Nicholson (1998) contended that the concept can vary for both leaders and non-leaders in certain aspects, including characteristics like a propensity for high risk-taking, openness, a drive for achievement, and low levels of deliberation. Entrepreneurial leadership also involves resisting the social influences that mould managerial traits and having the willingness to transition from management to leadership. Key writers including Gupta et al. (2004) stated that leadership can create visionary scenarios, that facilitate assembling the supporting cast of participants and mobilize them, who become dedicated to the vision to uncover and leverage strategic value creation, while Renko et al. (2015) described the construct as influencing and enhancing the performance of team members aimed at reaching organizational objectives that entail identifying and leveraging entrepreneurial opportunities.

Reflecting this definition, Gupta et al. (2004), together with Renko et al. (2015), which will be critically reviewed later in this chapter, indicated there are distinct similarities with transactional leadership, for example, with Gupta et al. (2004) focusing on the importance of vision. But there are also contentions and differences, with some writers aligning with Gupta et al. (2004), including Pu et al. (2022), but the majority of studies into entrepreneurial leadership draw on the definition of Renko et al. (2015), including Hoang et al. (2022), Lin and Yi (2022), Malibari and Bajaba (2022), and Strobl et al. (2022).

This has led to writers including Leitch and Harrison (2018), who indicated that there are now two overarching and differing perspectives to emerge: leadership or entrepreneurship, but even this has been contentious. Entrepreneurship can be seen as a concept which is not a *style* of leadership but rather as a description of the leadership role undertaken within entrepreneurial ventures (Leitch & Volery, 2017). This indicates leadership is not simply an aspect of entrepreneurship, but the concept of a leader is the essence of entrepreneurial leadership (Harrison et al., 2016). This perspective of Harrison et al. (2016) challenges the outdated trait-based theories (e.g., Kempster & Cope, 2010), which are often linked to mainstream leadership theory. However, for other authors, including Leitch and Harrison (2018a), there is a thought that there is a form of cross-pollination between entrepreneurship and leadership, in that these concepts are multi-directional, while others (Becherer et al., 2008) suggest that both leadership and entrepreneurship stem from a common phenomenon. Other writers on the theme of entrepreneurial leadership have made a clear distinction between the concept and transformational leadership, which has included Cai et al. (2019), who provided a connection between creativity at various levels in an entrepreneurial venture and ENTRELEAD, which was originally proposed by Renko et al. (2015). The outcome of Renko et al.'s (2015) study, which was based on Gupta et al. (2004) to devise eight items in one dimension, rather than five behavioural dimensions: framing the challenge, absorbing uncertainty, path clearing, building commitment, and specifying limits.

At the centre of entrepreneurial leadership has included Harrison and Leitch (1994), whose study is seen as a core paper in the field of study. For Harrison and Leitch (1994), who drew on the earlier work of Carsrud and Johnson (1989) to contend that both entrepreneurship and leadership have evolved in parallel, which has led to numerous studies to follow this line of thinking and reasoning (e.g. Harrison et al., 2020; Harrison & Leitch, 1994; Leitch & Volery, 2017). However, rather than claiming entrepreneurial leadership is a distinct construct, Harrison and Leitch (1994) do draw on potential parallels to suggest that, theoretically, the two constructs follow the same pathway of contingency.

Reid et al. (2018) also provided an overview of how entrepreneurship and leadership are cross-fertilised. In explaining this, Reid et al. (2018) identified five key dimensions to describe how the two concepts are almost identical. For Reid et al. (2018), leadership can be closely aligned with the concept of *leadership in* versus *leadership of*. Another study presented by Fries et al. (2021) examined leadership styles and leadership behaviours from the perspective of family-owned businesses. Through the literature review of the study, Fries et al. (2021) identified

several leadership styles and associated behaviours which were adopted by family businesses. In presenting the outcome, Fries et al. (2021) discovered seven leadership styles initially identified by Bass (1985) and Dyer (1986) in the broader leadership literature, which are also frequently mentioned in the context of family firms. Furthermore, they identified unique leadership behaviours that are specific to family-owned businesses, which surfaced as common themes in the literature they analysed. Fries et al. (2021) identified five distinct leadership behaviours specific to family firms: entrepreneurial, nepotistic, paternalistic, steward and supportive leadership behaviour. These behaviours are important as researchers have observed unique leadership traits in family businesses, such as mentoring (Menges et al., 2011), but did not address them in a cohesive research area focusing on leadership styles and behaviours in family firms. By aggregating the existing knowledge on family firm-specific leadership aspects and behaviour in the context of leadership styles, Fries et al. (2021) advanced the research on leadership in family firms. These authors have defined the behaviour of entrepreneurial leadership in accordance with (Pistrui et al., 2000). Furthermore, they have adhered to the widely accepted definition of transformational leadership as posited by Bass (1985). In doing so, the authors have implicitly adopted the Full Range Leadership Theory (FRLT) framework, which endorses the concept of leadership as a collaborative process that involves both leaders and followers.

2.8 The attributes of entrepreneurial leadership

Although there have been several theoretical studies which have attempted to provide a critical insight into the conceptual debates associated with entrepreneurial leadership, to completely understand the concept, it is essential to understand the core attributes. There have been several studies which have focused on this theme, which have begun to be recognised as seminal theories. Firstly, there is Gupta et al.'s (2004) questionnaire, which has been used by other authors, including (Paudel, 2019). The next theory is Renko et al. (2015), which will be used in this study. This study of Renko et al. (2015) has been used extensively afterwards (e.g., Cai et al., 2019; Newman et al., 2018; Lee et al., 2020). Finally, in a more recent study and contribution had been the work of Bagheri and Harrison (2020), presented the creation of an operationalised measure of entrepreneurial leadership.

The first model of entrepreneurial leadership, which could be argued as the core study, was presented by Gupta et al. (2004). The study of Gupta et al. (2004), although a quantitative study to develop a measurement, the contribution of the research was the development of a list of

behaviours considered to be unique to an entrepreneurial style of leadership. The outcome of the Gupta et al. (2004) study was the introduction of five behavioural dimensions: framing the challenge, absorbing uncertainty, path clearing, building commitment, and specifying limits. Interestingly, several of these behaviours clearly mirror certain aspects of transformational leadership, such as 'has a vision and imagination of the future', 'Sets high standards of performance', or 'Inspires emotions, beliefs, values and behaviours of others, inspires others to be motivated to work hard' (Gupta et al. 2004, p. 250). Since the publication, there have been other studies which have discussed these attributes and the similarities to transformational leadership, but also indicate differences such as 'ambitious foresight and pattern recognition capabilities' required in entrepreneurial leaders, which are absent in transformational leadership (Gupta et al. 2004, p. 254).

The next concept, which was based on Gupta et al. (2004) and then later with Renko et al. (2015) studies, is Bagheri and Harrison (2020). These two authors presented a detailed assessment of entrepreneurial leadership, which consisted of 40 items together with eight dimensions. These eight dimensions to Bagheri and Harrison (2020), there were some characteristics associated with leadership styles, which included empowering leadership, as to creating an environment where employees perceive they can try new activities or practices (Cheong et al., 2019) and ultimately become self-managed or lead. By possessing these characteristics indicates that employees have an "awareness of their strengths and weaknesses", "demonstrates the ability to manage time effectively" (Houghton et al., 2003) or from a transformational leadership perspective, "lead their followers by serving as a role model", "inspires emotions, beliefs, values and behaviours of followers", "shows empathy towards his/her followers" (Bass & Avolio, 1994, p.3). However, there are several characteristics which do not fit or can be aligned with the mainstream conceptualisation of leadership, such as the interpersonal and goal-oriented influence processes, which include anticipating possible future events, recognising existing market opportunities, actively identifying, developing, and then seeking new business opportunities. While Bagheri and Harrison's (2020) scale does provide a degree of uniqueness, the concept has yet to be widely applied compared to Gupta et al. (2004) and Renko et al. (2015) studies, which could potentially limit its credibility as a reliable means to assess leadership styles.

Finally, Renko et al. (2015) introduced the ENTRELEAD concept, which was originally developed as a short measure for entrepreneurial leadership. The concept was based on

addressing the issues which have been identified from the original research of Gupta et al. (2004). The ENTRELEAD as a methodology uses a standard procedure of scale development and validation, which led to Renko et al. (2015) to advocate an eight-item scale for assessing and determining entrepreneurial leadership. It should be noted that ENTRELEAD does have a close resemblance to transformational leadership as to the scales used. Three of ENTRELEAD's eight items, that of "Has creative solutions to problems", "Challenges and pushes me to act in a more innovative way", "Wants me to challenge the current ways we do business", are closely aligned or mirror the transformational leadership dimension of intellectual stimulation. Then there are also two other categories which are identical in content to inspirational motivation, which is named as "Has a vision of the future of our business", together another is strongly linkage to the idealized influence behaviour which is named as "Demonstrates passion for his/her work".

2.9 Studies using transformational instead of entrepreneurial leadership

There has been an academic debate associated with examining entrepreneurial leadership using the construct of transformational leadership, which has adopted the theoretical framework, including the full-range leadership model. These studies have included studying transformational leadership to assess performance, which has included Ng et al. (2020), and Zaech and Baldegger (2017), or the personality of the individual leader (Hensel & Visser, 2018). While these studies have provided rich insight, several studies have argued that using transformational leadership in the study of entrepreneurship can be limiting, either due to its intrinsically general effects and characteristics of leadership (e.g. Ng et al., 2020; Xu & Jin, 2022), or due to the ineffective means to assess entrepreneurial leadership to be able to accurately represent and reflect the classical definition of leadership (Baldegger & Gast, 2016; Zaech & Baldegger, 2017).

In their study, Ng et al. (2020) introduced a brief literature review in which several sources were cited supporting the value of transformational leadership as to the success of an enterprise or business. However, the relevance of some of these sources used in Ng et al. (2020) study in relation to entrepreneurship seems to be tenuous, for example that of Schaubroeck et al. (2007), while also not providing an explicit justification as to why other assessment tools, which are more visibly relevant, from other models and concepts, including Renko et al. (2015). Ensley et al. (2006), in contrast, provided a more detailed rationale for employing the transactional-transformational leadership approach. In achieving this, Ensley et al. (2006) defined that the

entrepreneur is a leader by 'default', as they are allocated or given the resources and responsibilities, so that innovation and opportunities can be exploited. But in presenting this perspective, both Ensley et al. (2006) and later Baldegger and Gast (2016), studies indicated the evolution of leadership styles to document the shift from transformational to transactional with increasing maturity of the venture. In justifying this, the rationale provided by Baldegger and Gast (2016) was that given for the usage of the transformational leadership concept was based on the clear separation between the entrepreneur and that of entrepreneurial leader. Here, an entrepreneurial leader was considered to be simply as leadership within an entrepreneurial context; therefore, the assessment of a leader is achievable through the use of established tools, including those of Gupta et al. (2004). This perspective was later supported by another co-authored study by Zaech and Baldegger (2017), who followed the same rationale and justification.

In studying the relevance of transactional leadership, Hensel and Visser (2018) in their study of the entrepreneurial competencies in SME performance, provided a causal chain of reasoning for adopting this concept. In explaining this, Hensel and Visser (2018) highlighted the importance of innovation for entrepreneurial effectiveness, and then offered empirical evidence related to indicating how the concept can create and facilitate team innovation, but indicated that there was little evidence to support the premise that teams under shared leadership thrive. To address this, Hensel and Visser (2018) provided a variety of personality traits to understand the key dimensions of vision articulation and intellectual stimulation. However, again, there was no clear justification established for a potentially direct benefit provided as to why transformational leadership could be suitable for researching and understanding entrepreneurship, except if the innovation characteristic is used. Also, the study interestingly stated that transformational leadership is the same as entrepreneurial leadership, and then examined several leadership styles, including charismatic, visionary, transformational, and servant, together with a relationship with the concept of green entrepreneurship, as to how it affects overall firm growth. In closer explanation, Hensel and Visser (2018) excluded any of the extant tools used to assess entrepreneurial leadership in their analysis. While the above studies have been quantitative, there has been limited research which have been qualitative or inductive. Of these studies, there are two of note: Wang et al. (2012) and McCarthy et al. (2010). With Wang et al. (2012), the study examined the relationship between entrepreneurial leadership and then conceptualised the lying continuum or association of transactional leadership, together with the philosophy of Chinese leadership. In contrast, McCarthy et al.

(2010) analysed open-ended questionnaires from 130 entrepreneurs using content analysis methodology to inductively categorise and identify common leadership styles. The result of McCarthy et al. (2010) indicated that most of the entrepreneurs adhered to an "open" leadership style, which the study then determined to be "consistent with the characteristics of transformational leadership.

From above, there is a clear disparity or difference between the theory of transformational leadership and entrepreneurial leadership. For some authors (e.g., Harrison et al., 2020; Leitch & Volery, 2017), there is a clear distinct as to the phenomenon of entrepreneurial leadership, while other authors see that the two concepts are similar (e.g., Clark et al., 2019; Harrison et al., 2016). For Ahmed and Harrison (2021), Clark et al. (2019), and Leitch and Volery (2017), these authors have contended that the two concepts are diametrically opposite, as the concept of entrepreneurial leadership is grounded either in the leadership or in the entrepreneurship field.

Even though these authors explicitly confirm the relevance of transformational leadership, these studies have considered leadership as the process of influencing and then achieving shared objectives (Leitch & Volery, 2017). This perspective is aligned to the full-range leadership theory as a theoretical concept, with these authors also indicating that there are clear differences. For other writers, including Pauceanu et al. (2021), have provided even broader definitions, which consider entrepreneurial leadership as being a new leadership style which is needed or required to meet current business changes in the fourth industrial revolution.

There are several of its items were which are characterised by transformational leadership, which overlaps with entrepreneurial activities, which is acknowledged by authors including Gupta et al. (2004). However, there are also more fundamental issue which needs to be recognised. One of the key issues is associated with the original assessments and criteria proposed, as noted by Gupta et al. (2004), who noted that the GLOBE data (House et al., 1999) used was not originally intended for the development of this model, or for the creation and validation of a new scale. Then there is recognition that the methodology of Gupta et al. (2004) is highly unorthodox, as it contains five behaviour attributes, which are seen as necessary for entrepreneurial leaders to draw in, including team building and providing value-based leadership. In contrast, Renko et al. (2015) see that these five behaviours are clearly embedded

into their methodology and have been informed by transformational leadership, including attributes such as "the articulation of a compelling vision".

To present the attributes and characteristics of leadership, Gupta et al. (2004), presented selected from 112 attributes of "outstanding leadership" contained in the GLOBE dataset a total of 19 that they "expected to load" onto the five previously established roles of entrepreneurial leadership (Gupta et al., 2004, p.245). However, Gupta et al. (2004) indicated that the fit of the assessments and indices for the confirmatory factor analysis at individual levels of analysis deteriorates substantially. Furthermore, external validity was established only within the GLOBE dataset by correlating entrepreneurial leadership with several of Hofstede's cultural dimensions deemed relevant to entrepreneurship, but only at the level of entire societies (Shane et al., 1995). These issues have been sharply criticised, particularly as to the usage of the GLOBE data (Graen, 2006). Gupta et al.'s (2004) assessment tool has been employed as a questionnaire by numerous researchers with only minor adaptation (e.g. Huang et al., 2014; Boateng et al., 2018; Hinkin, 1995), which demonstrates the reliable nature of the explicit scale created.

In addition to being criticised for its similarity to transformational leadership (Renko et al., 2015), this scale should therefore be viewed with caution with respect to validity. Gupta et al.'s (2004) model, employed for evaluating entrepreneurial leadership, is an informative resource. However, its utilisation entails certain limitations. The tool heavily relies on secondary data, which may not always be entirely accurate or comprehensive. Furthermore, the tool does not account for the intent behind opportunity recognition and exploitation, thereby resulting in an incomplete understanding of leadership (Renko et al., 2015). Moreover, some items used to assess transformational leadership (Podsakoff et al., 1990) have created issues related to content validity issues (Renko et al., 2015). The assessment tool provides valuable insights into entrepreneurial leadership. However, it is essential to note that it has some limitations, and it may not be appropriate for all contexts. As such, careful consideration should be given to the tool's utilisation to ensure that its evaluation of leadership remains relevant and effective (Renko et al., 2015).

In contrast, the ENTRELEAD scale is the most widely used questionnaire measure of a distinct entrepreneurial leadership style which followed Gupta et al. (2004) original research. As noted

above, there are several items on the ENTRELEAD scale closely resemble items used to assess transformational leadership. This comparison is shown below in the Table 2.1, which presents the facets of transformational leadership as advocated by Carless et al. (2000) and Renko et al. (2015) entrepreneurial leadership.

Renko et al. (2005) entrepreneurial leadership	**Careless et al. (2000) Transformational leadership**
Has creative solutions to problems	Encourages thinking about problems in new ways and questions assumptions
Challenges and pushes to act in a more innovative way	Is clear about values and practices
Want to challenge employees as how things are done	Instils pride and respect in others and inspires others by high levels of competent
Demonstrates passion for the employee's work	Communicates a clear and positive vision of the future
Has a vision of the future the business	Treat all employees as individuals, supports and encourages
Comes up with radical improvement ideas for products or services	Provides encouragement and recognition to staff
Comes up with ideas of completely new products or services	Fosters trust, involvement and cooperation amongst all in the organisation
Takes risks	

Table 2.1: Comparison table. Source: Carless et al. (2000) and Renko et al. (2015)

Using the ENTRELEAD scale, the assessment often indicates the radical improvement or completion of ideas for the products/services, along with taking risks. But there, the ENTRELEAD does not have any direct connection to the mainstream definitions of leadership, which Northouse (2018, p. 43) stated is the 'process whereby an individual influences a group of individuals to achieve a common goal.' This raises omission does present two questions.

Firstly, that previous studies (e.g., Covin & Slevin, 2002; Ireland et al., 2003) have tried to unite aspects of strategic entrepreneurship with entrepreneurial leadership, but the original concept of Renko et al. (2015) does not mention or acknowledge this omission, indicating that the mainstream leadership concept may not incorporate all aspects of leadership. Secondly, leadership research has indicated how success is focused on definable behaviours which are relevant to the interaction between the leader and the follower (Derue et al., 2011; Hemshorn de Sanchez et al., 2022). Based on the ENTRELEAD model, leadership of followers needs to include the opportunity for recognition of the follower (Emami et al., 2022) or risk-taking. These gaps do indicate that the existing ENTRELEAD model does have some potential limitations, as it may not capture all of the key characteristics of entrepreneurial leadership, such as opportunity recognition and risk-taking. These two facets, however, may have little to do with the leading of followers. Furthermore, these two characteristics have been extensively theoretically researched (e.g. Angelsberger et al., 2017; Grégoire et al., 2010; Palich & Bagby, 1995). This has included the leadership behaviours which encourage employees to take risks, which is a component of leadership, often referred to as empowering (Cheong et al., 2019). The ENTRELEAD also indicate that leadership also has its own tendency towards risk-taking, which is assessed through determining from the question "Do you take risks?" (Renko et al., 2015).

Finally, the most recent study proposed by Bagheri and Harrison (2020) based on entrepreneurship leadership has indicated by demonstrating that there are differences between transformational leadership and entrepreneurial leadership. The extensive questionnaire developed by Bagheri and Harrison (2020) does offer additional items which are distinctive from transformational leadership, although there are items which do overlap. In presenting their concept, Bagheri and Harrison (2020) do acknowledge the strong resemblance between Gupta et al. (2004) construct and the theoretical foundation, but the authors do argue as to the value of Gupta et al.'s (2004) scale as a basis which has been widely used scale to determine entrepreneurial leadership. But this usage and underlining relevance of Gupta et al. (2004) model has been criticized by a series of writers including Harrison et al. (2018), Leitch et al. (2013), Leitch and Volery (2017), along with Harrison et al. (2016, 2020), who have suggested that the underlying dataset of GLOBE data was no longer relevant and had limited potential (Clark et al., 2019).

More recently, there have been a series of studies that have studied ENTRELEAD (e.g., Hensellek et al., 2023; Hoang et al., 2022; Lin & Yi, 2022; Malibari & Bajaba, 2022; Strobl et al., 2023), but most notably Bagheri et al. (2022). Therefore, Gupta et al.'s (2004) conceptualisation is by no means the only model of entrepreneurship and is not unique. There have been recent studies which have proposed that there are overlaps (Deng et al., 2023; Banks et al., 2017; Hoch et al., 2018). Furthermore, these issues are also mirrored in other models, including the ENTRELEAD, as some of the items used to assess are not representative of the full extent to which leadership styles are represented, and tend to fail to conform to a classical, theoretical appreciation of leadership as an influence process between leader and follower. This was noted by Bagheri and Harrison (2020, p. 660), who stated that there are weaknesses in the assessment of entrepreneurial leadership as the concept fails to focus on the "critical aspects of the construct such as risk-taking, innovation and opportunity recognition." Finally, whereas Bagheri and Harrison's (2020) eight-dimensional model provided an acceptable model fit, this may not be able to capture the entire entrepreneurial leadership facets as a single-factor construct, as it closely mirrors the assessment of Gupta et al. (2004). Therefore, it is uncertain whether the proposed model of Bagheri and Harrison (2020) can accurately unify the concept of entrepreneurial leadership.

2.10 Leaders and followers' relationship

This section will focus on the relationship of entrepreneurial leaders with their followers. There are several similarities between entrepreneurial leadership and transformational leadership in their respective characteristics and behaviours. As previously discussed in section 2.9, entrepreneurial leaders, like transformational leaders, tend to seek new ways to achieve their objectives and are opposed to maintaining the status quo (Renko et al., 2015). Both types of leaders' approaches are focused on creating and shaping the business environment rather than simply adapting to it (Lowe, Kroeck & Sivasubramaniam, 1996). This perspective implies that entrepreneurial leaders could benefit from the principles of transformational leadership to enhance their effectiveness. Both transformational and entrepreneurial leaders inspire their employees by encouraging them to look at familiar tasks from a different perspective (Bass, 1985). This approach of leaders helps in identifying of unique opportunities that can be capitalised upon. Entrepreneurial leaders achieve this by encouraging their employees to find innovative ways to complete tasks and by creating an environment for the employees where

they can feel free to work on new things or ideas (Bagheri & Harrison, 2020). Both leadership styles also tend to share strong similarities in intellectual stimulation (Renko et al., 2013).

Despite some similarities, there are significant differences between entrepreneurial leaders and transformational leaders, specifically in terms of how these leaders idealise influence and inspirational motivation. While transformational leaders are often seen as leaders who are inspirational and charismatic in their leadership style, entrepreneurial leaders typically lead with a clear purpose and goals, inspiring others through their actions rather than their words (Steinmann, Klug, & Maier, 2018). Impression management techniques, such as charisma, inspirational appeals, and symbolism, are used by transformational leaders to inspire their followers, while entrepreneurial leaders can also be charismatic, but they tend to inspire entrepreneurial behaviour through their actions and by setting an example that others can follow (Renko et al., 2015).

The way entrepreneurial leaders engage with their followers and promote an entrepreneurial spirit in their work behaviour is an essential aspect of entrepreneurial leadership. Prior research has concentrated on empowerment through delegation as a means by which entrepreneurial leaders elevate the confidence, motivation, and drive of followers or employees to achieve specified objectives (Conger, 1989; McGrath & MacMillan, 2000; Ireland et al., 2003). An alternative approach suggests that managers at the top level of the company are viewed as facilitators who can encourage staff to engage in entrepreneurial activities by fostering pro-entrepreneurship cognitions (Ireland et al., 2009). Ireland et al. (2009) suggested that continuous adjustments to business cultural norms aimed at fostering entrepreneurial behaviour contribute to the creation of a supportive environment. Renko et al. (2015) conducted an investigation to examine the common behaviours of entrepreneurial leaders. Both Renko et al. (2015) and Ireland et al. (2009) included role modelling and influencing as important dimensions. However, Renko et al. (2015) also highlighted the need for conceptual clarity when considering the role of followers in entrepreneurial leadership research, as this area is relatively new.

To understand the reasons behind the behavioural paths chosen by leaders, it is imperative to explore the influence of these behaviours on their employees. The Leader-Member Exchange Theory, developed by Graen and Uhl-Bien (1995), posited that a comprehensive understanding of the effectiveness of various leadership approaches can be achieved by merging the leader-

domain perspective, which scrutinises behaviours, attitudes, perceptions, and expectations, with the analysis of followership and its effects. Such an approach is particularly relevant for indicating those characteristics which drive or influence leaders' behavioural choices and the implications of these choices for their followers. Renko et al. (2015) postulated that the followers' entrepreneurial self-efficacy can be attributed to the influencing and role-modelling dimensions tested in their model. This opinion is underpinned by social cognitive theory, which is primarily based on the work of Bandura (1997, 2000, 2012) on self and collective efficacy. This leadership can potentially enhance employees' confidence in their abilities and strengths through social influence (Jaiswal & Dhar, 2015). Additionally, leadership can strengthen the confidence of the team and organisation, resulting in enhancing a shared belief in their capability to organise and execute the necessary actions to achieve desired outcomes (Bandura, 1997, p. 477).

The study conducted by Renko et al. (2015) underscored the importance of role modelling and its impact on enhancing followers' entrepreneurial self-efficacy. This research offers a chance to deepen our understanding of the influence of entrepreneurial leadership on employees' innovative behaviour. These behavioural traits can empower employees and enhance their internal motivation, alongside external reward systems, positively affecting the augmentation of followers' pro-entrepreneurship mindsets and behaviours at work. Reflecting on this, it is essential to pursue additional research in this area to explore behavioural tendencies beyond role modelling and influence, aiming to understand how leadership practices inspire entrepreneurial actions, particularly in the context of Pakistan.

2.11 Entrepreneurial leadership traits in a social context

To gain a comprehensive understanding of entrepreneurial leadership, it is crucial to analyse the various traits, attributes and actions that comprise it within the social context. Entrepreneurial leadership is a complex concept that requires a deeper examination of how it is practised and understood in different settings. The social context in which it operates can have a significant influence on how these traits and attributes are perceived and enacted (Gupta et al., 2004). By analysing the social context, the study can provide a more precise picture of how entrepreneurial leaders lead and what sets them apart from other types of leaders.

Therefore, it is essential to review the existing literature on leadership in a business setting. Understanding the fundamentals of leadership is an important prerequisite to examining how entrepreneurial leadership is practised and perceived in a social environment. By analysing the existing literature on leadership, it can be established that there are specific traits and attributes that are unique to entrepreneurial leadership and how these characteristics are enacted in different social contexts. Therefore, based on the previous section linked to Renko et al. (2015), category creativity and innovativeness will be analysed next.

2.11.1 Creativity and innovativeness

In the context of this study, it is important to clarify the relationship between the concepts of creativity, ideation, and innovation, as constructs are closely linked yet distinct in both theory and practice. Creativity refers to the broader cognitive ability and individual or collective capacity to generate novel ideas (Amabile, 1988). Within this creative capacity, ideation is defined as the specific process of generating, developing, and communicating new ideas. Ideas represent the early stage of the innovation process, focusing primarily on the production of potential solutions or opportunities (Boer & During, 2001). Innovation, in turn, encompasses the entire process by which these creative ideas are transformed into value-creating outcomes within an organisation (Taran et al., 2015).

In this study, when ideation is presented, the concept refers specifically to the act of idea generation and refinement within the creative process, while creativity indicates the underlying capability or environment that enables this form of innovative thinking. Innovation is then seen as the strategic application of creativity and ideation, which can enable the delivery of new products, services, or processes that generate organisational value. Understanding this distinction helps to clarify the behaviours and attributes required of entrepreneurial leaders to cultivate each stage effectively within high-technology SMEs.

To promote innovation and help businesses' ability to adapt to changing environments across various contexts, entrepreneurial activities are becoming increasingly important (Renko et al., 2013). Renko et al. (2015) argued that entrepreneurial leaders encourage such activities in a business, which helps the staff to polish their intellectual abilities and encourages innovative thinking. Creative thinking and intellectual ability of staff enhance innovation in new projects, and entrepreneurial leaders are the source of creating such creative environments in the

business by bringing the team together (Chen, 2007). Research conducted by Akbari et al. (2020), Bagheri (2017), and Li et al. (2020) has identified entrepreneurial leadership as an effective leadership style for SMEs because the entrepreneurial leadership style fosters and encourages innovation in the demanding, volatile, and uncertain business environment.

Companies, including SMEs that strive for innovation to create novel or improved products and provide better services, invest considerably in financial resources for scientific and technological research and development (Butchart, 1987). However, to attain innovation and knowledge creation, corporate leaders must do more than just allocate resources (Kodama, 2007; De Jong & Den Hartog, 2010; Renko et al., 2015). To achieve this, the leadership must foster a culture that encourages creativity and experimentation, invest in employee training and development, establish collaborative networks with external partners, and promote a mindset that embraces risk-taking and continuous improvement. In adopting this strategy SMEs can hope to stay ahead of the competition and remain relevant in today's fast-paced and constantly evolving business landscape. Thornberry (2006) and Renko et al. (2015) entrepreneurial leadership research revealed that creative individuals often serve as exemplary figures for innovation by actively creating novel products or services, or by significantly enhancing products or services currently offered by the business. Furthermore, existing research, for example, Brigham (2004) suggested that entrepreneurial leaders inspire their employees to follow their lead by encouraging actions that challenge the status quo and promote creativity (Thornberry, 2006; Chen, 2007; Renko et al., 2015). For Kleysen and Street (2001), innovative work behaviour is not just being creative at the workplace, but it is also part of coming up with new ideas. These new ideas can bring up small changes in the business or change the whole procedural process. Further innovation can be divided into two kinds: radical innovation, also known as ground-breaking, and incremental innovation by making small changes (Xi Zhang, 2022). Staff innovative behaviour comes under incremental innovation, as they provide solutions to small problems, which further move down the hierarchy (Al Daboub et al., 2024).

The field of entrepreneurship, management, organisational behaviour, and creativity embraces a distinctive concept known as ideation. This concept is driven by prior knowledge and analysis of reality and is characterised by innovative and value-creating thinking, which aims to challenge or reject previously accepted ideas (Locke & Kirkpatrick, 1995). Notably, creativity is often considered a crucial component of opportunity identification. Alongside awareness of one's environment, self-belief, the cultivation and use of social networks, and the possession of

prior knowledge or experience, the ability to think creatively is pivotal in this regard. Chen (2007) and Renko et al. (2015) have recognised the significance of creativity in ideation, and as such, cultivating and enhancing creative thinking is essential for successful entrepreneurship and management. Therefore, it is essential to understand creativity and its potential influence on ideation in entrepreneurial and management contexts.

Research on entrepreneurial leadership views creativity as a quality of leaders who exhibit originality in their invention, design, and problem-solving techniques. This conceptualisation of creativity is comparable to that of innovativeness (Fernald, 2005; Chen, 2007; Renko et al., 2015). Entrepreneurial leaders are seen to encourage employees to be more creative when exhibiting these qualities by removing bureaucratic barriers, rules, and laws (Thornberry, 2006; Renko et al., 2015); and by fostering a culture that encourages innovation, reward, and tolerance for failure (McGrath & MacMillan, 2000; Thornberry, 2006; Renko et al., 2015).

The research conducted by Hills et al. (1997), Ardichvili et al. (2003), and Dawson and Andriopoulos (2008), have shown that to successfully explore and exploit opportunities, it is crucial to possess a combination of proactive and innovative approaches. This perspective implies that simply recognising opportunities is not enough, but acting on them with a creative and innovative mindset is equally important. Therefore, individuals or organisations that can generate new ideas and adopt a proactive approach towards implementing them are more likely to achieve success in exploring and exploiting opportunities. De Jong and Den Hartog (2010) contended that innovation and creativity are closely interconnected, with the primary difference between the two being the resulting outcome (Amabile, 1988). The implementation of imaginative concepts related to products, services, procedures, and processes is a fundamental aspect of innovation (De Jong & Den Hartog, 2010). Innovation necessitates the collaboration of imaginative minds to generate creative ideas that can be put into action, resulting in the development of new goods, services, or processes (De Jong & Den Hartog, 2010; Juliana et al., 2021). Therefore, the ability to innovate necessitates the ability to think creatively. To approach innovation with fresh insights and configurations at the outset of the process, ideation is essential. However, the process of ideation must be complemented with creativity, which is a significant factor in the overall process. Therefore, understanding both ideation and creativity is fundamental to comprehending the implementation of entrepreneurial leadership. These factors are key determinants of the desired conduct and outcome of the leadership process (West, 2002).

2.11.2 Collaborative culture

Linked to the previous discussion in section 2.7, the collaborative culture of businesses plays an important role in achieving business objectives. The Full Range Leadership Theory (FRLT) framework, which endorses the concept of leadership as a collaborative process that involves both leaders and followers (Bass, 1985). Linked to this, Srivastava and Banaji (2011) suggested that, for the efficient achievement of goals, a collaborative culture is key and assisting and supporting each other is considered vital to success. This kind of environment in businesses encourages open communication between staff and leaders, which helps in reducing barriers and promotes innovative activities in the business (Prez, Manuel, & Jos, 2004). Sanchez (2012) argued that the main influences which contribute to developing a collaborative culture in the business include that everyone in the business should have a sense of belonging and feel part of the community; staff should be involved in decision-making processes, and autonomy for the shared objectives. Kumaraswamy and Chitale (2012) focused on the exchange of ideas, which increases knowledge, and further discussed the development of the workforce through open communication and removal of barriers between staff and leaders, hence improving creativity and productivity.

To create such a collaborative environment, leadership plays an important role in encouraging staff to come forward with out-of-the-box thinking and novel ideas (Mubarak et.al., 2018). In their study, Lu et al. (2017) proposed a staff management approach that emphasises the importance of providing employees with regular breaks to refresh their minds and foster creative thinking. Despite the proven benefits, many leaders neglect to prioritise scheduling such breaks for their staff. Additionally, Mokhber et al.'s (2016) study demonstrated that entrepreneurial leaders excel at recognising opportunities and mobilising resources. As a result, they are well-equipped to implement and oversee effective staff management strategies.

Oh et al. (2018) asserted that the focus of genuine leadership is on improving relationships with followers via the development of real leadership qualities and skills. Oh et al. (2018) stated that leaders have a genuine concern for the welfare of their followers, appreciate teamwork, and make sure that staff members are encouraged to increase productivity and achieve business success. Jones and Crompton's (2009) study findings demonstrated that genuine leaders prioritise involving staff in the process of developing new products and services and

acknowledge them as key stakeholders (Mukhwana & Levasseur, 2023). As a result, these leaders encourage staff to utilise their skills through positive influence and role modelling that helps in strengthening organisational commitment (Renko et al., 2015).

Collaborative culture is based on the shared values of the business; therefore, it plays a vital role in the cultural development of the business (Meredith et al., 2017). Collaborative culture flourishes in a business with open communication and mutual trust, hence promoting effective team results (O'Daniel & Rosenstein, 2008). Walker, David, and Stevenson (2017) proposed that collaborative culture enhances the clarity of the staff's minds about the task at hand and the overall goals of the business. Bates et al. (2019) further supported the argument and stated that collaborative culture in a business improves the working conditions in the business and develops better coordination between staff and leaders. Moreover, organisational culture plays a significant role in the creativity of the team, which has positive effects on project creativity (Boughzala & Vreede, 2015). Hill and Bartol (2016) suggested that collaborative culture is positively associated with effective leadership, because the leader is the source, which empowers the staff to develop a creative culture and promotes novel ideas. Liu et al.'s (2018) study contended that genuine leaders have internalised values that direct their behaviour and foster a healthy work environment for staff members. Additionally, leaders provide psychological safety, which results in followers being intrinsically motivated to advance organisational goals including innovation, efficiency, and increased job dedication (Liu et al., 2018). The research conducted by Delic et al. (2017) provided valuable insights into the critical role that leaders play in shaping the learning culture of their organisations. The study of Delic et al. (2017) highlighted the ways in which effective leaders can positively influence the behaviour and attitudes of their staff members by promoting continuous learning and skill development. By creating an environment that prioritises professional growth and development, leaders can encourage their teams to stay motivated and engaged, while also enhancing their overall skill set and competencies. These findings underscore the importance of leadership in fostering a culture of learning and innovation, which can ultimately help organizations to remain competitive and successful in today's fast-paced business landscape. Beddoes-Jones and Swailes (2015) argued that real leaders cherish interactions with others and believe that building trust is essential to improving relationships. In contextualising this, Beddoes-Jones and Swailes (2015) identified three qualities—cognitive, behavioural, and emotional, all based on trust, that help leaders forge solid bonds with subordinates and other stakeholders.

Nasab and Afshari's (2019) study suggested that entrepreneurial leadership and collaborative culture are linked with each other. Firstly, entrepreneurial leadership paves the way for creativity and innovation in the culture of the business, which results in a strengthened collaborative culture. Secondly, transparency in the business plays a vital role in building trust, hence promoting a collaborative culture (Nasab & Afshari, 2019). Semedo et al. (2018), and Nasab and Afshari (2019) contended that transparency is a vital leadership quality, as it enables the staff members to comprehend how the leader behaves during the decision-making process by openly exchanging information and ideas. Feng et al. (2018) stated that leaders promote an environment of trust in a business by consciously sharing thoughts and feelings with staff. Further, staff understand and recognise the leader's values and high morals through interpersonal interactions; thus, the process enhances motivation and performance at the workplace. Furthermore, Jiang and Men (2017) contended that leader transparency promotes a culture of trust in a company through sharing information, procedures, and goals.

Organisational creativity is enhanced when the team is welcomed to share new ideas, as it helps the team members to understand the organisational culture and gives clarity about the goals, hence promoting the overall creativity of the business (Anderson, Potocnik & Zhou, 2014). Entrepreneurial leadership is the type of leadership which encourages a collaborative culture by encouraging the team members to come up with novel ideas (Chen, 2007).

2.11.3 Intellectual stimulation

Żywiołek et al. (2022) study proposed that transformational leadership is an active style of leadership based on the perspective of full-range leadership theory, which also included that transformational leadership has four key dimensions based on the work of (Avolio, 2010). The transformational leadership dimension of intellectual stimulation is closely related to three of ENTRELEAD's eight items: that of "Has creative solutions to problems", "Challenges and pushes me to act in a more innovative way", "Wants me to challenge the current ways we do business". Link to the discussion in sections 2.8 and 2.9, this section presents the relationship between entrepreneurial leadership, intellectual Stimulation and employees' intellectual agility. Intellectual stimulation, as a leadership behaviour, has frequently been associated with transformational leadership theory (Bass & Avolio, 1994; Avolio, 2010), where transformational leadership refers to a leader's ability to encourage followers to challenge

traditions, think critically, and approach problems with fresh perspectives. This dimension of transformational leadership is distinct in that it promotes independent thinking and values the intellectual engagement of employees, rather than merely fostering innovation or creativity as end goals (Yukl, 2013). While creativity and innovation involve generating and applying novel ideas, intellectual stimulation refers more specifically to the process of engaging in deep, analytical thought that may support or challenge the concepts and ideas in the business.

Renko et al. (2015) in their ENTRELEAD framework, incorporated intellectual stimulation as one of the indicators of entrepreneurial leadership, recognising that encouraging staff to question the status quo and reframe challenges is essential to opportunity recognition. The ENTRELEAD items, such as "challenges and pushes me to act in a more innovative way" and "wants me to challenge the current ways we do business", explicitly reflect this intellectual engagement. These behaviours are aligned with Bass's (1985) conceptualisation of intellectual stimulation but are here positioned within an entrepreneurial context that links questioning norms with the potential for value creation and strategic action (Bagheri & Harrison, 2020). More importantly, intellectual stimulation also encompasses what has been termed intellectual agility, the ability of both leaders and followers to navigate complex, dynamic, and ambiguous environments by shifting intellectual frameworks and adapting new knowledge (Leitch & Volery, 2017). Although intellectual agility is less frequently defined in the leadership literature, it has been suggested to incorporate the ability to synthesise diverse viewpoints, manage intellectual disagreement, and maintain an openness to learning (Mainemelis et al., 2015; Antonakis & Autio, 2014). This quality of intellectual agility is particularly crucial in high-technology SMEs, where market conditions change rapidly, and adaptive problem-solving is essential for organisational survival (Taran et al., 2015; Akbari et al., 2020).

Rather than simply comparing intellectual stimulation with creativity or innovation, it is more precise to view intellectual stimulation as a precursor to these outcomes, facilitating the intellectual environments in which creativity and innovation can be enacted (Amabile, 1988; Zhou & Shalley, 2003). The concept enables a culture of inquiry and rational risk-taking, where employees are not only allowed but expected to question conventional approaches. Such an environment is especially important for entrepreneurial leaders operating in uncertain and resource-constrained contexts, such as high-technology SMEs in Pakistan, where innovation must be both cost-effective and contextually relevant (Hou, Li & Yuan, 2018; Bagheri et al., 2020).

Recent studies by Stojcic et al. (2018) and Dabic et al. (2019) have focused on identifying the practices that promote innovation in SMEs. Stojcic et al. (2018) and Dabic et al. (2019) posited that innovation in businesses is rooted in the seeds of knowledge and creativity. Similarly, Ali et al. (2017) argued that internal drivers of innovation in a business include business intelligence, knowledge, and personal values of leaders and staff. Cegarra-Navarro and Martelo-Landroguez (2020) stated that creating an innovative climate is essential for innovation to thrive. Intellectual agility is a key factor in creating a conducive environment in the business where staff can invest their time and efforts in preparing for unique challenges by developing innovative and creative strategies. Consequently, developing an innovative culture in SMEs can facilitate the creation of new products, services, and processes, thereby enhancing competitiveness and profitability.

Demartini and Beretta (2020) stated in their study that nurturing the intellectual abilities of staff helps in creating new products and services required by the current market. Previously, Bontis et al. (2002) indicated that knowledge lies in the organisational human capital; it is the ability of the leaders to stock and utilise that knowledge in the value-creation process. In the study of human capital, intellectual agility is a relatively new aspect that contributes to the ability of a business to be more innovative.

Dabic et al. (2021) proposed that fostering an innovative environment is simply one aspect of intellectual agility. Dabic et al. (2021) further supported this point by stating that staff's skills and knowledge can assist in innovation success if leaders create an environment in the business where innovation is encouraged and promoted. This shows that intellectual agility is the staff's ability to transform their thinking and explore new ideas and information with experimentation, coming up with novel ideas for solutions to present and future problems (Dabic et al., 2021). Thus, it can be said that intellectual agility is the ability of the individual to learn about the challenges faced by the business and, at the same time, implement that learned knowledge into practice and enhance the skills and knowledge stock of the business (Cegarra-Navarro & Martelo-Landroguez, 2020). This shows the dual nature of intellectual agility. Firstly, the ability of the leadership of a business to enhance the intellectual agility of staff through intellectual stimulation by creating an innovative environment at the workplace, and secondly, the flexibility and desire of staff to develop their abilities quickly to solve the challenges faced by the business. Existing literature has focused on the management's ability to create a

hospitable environment for innovation by enhancing staff's abilities. However, Dabic et al. (2021) suggested that intellectual agility lies within the staff's behaviour, and that management only plays the role of mediator to develop the link between the staff's intellectual agility and the innovation performance of the business (Bagheri, 2017).

Dabic et al. (2021) argued that organisational innovation success depends on the leader's ability to intellectually stimulate the staff's intellectual agility. Academic literature proposes that an entrepreneurial leadership style aids in creating an innovative climate and helps in stimulating organisational innovation success. Demartini and Beretta (2020) stated that, arguably, it is hard for SMEs to survive in an unpredictable environment, which makes leadership competencies, talents, skills, and entrepreneurship abilities vital for the survival of a business. In the past, the academic literature on entrepreneurial leadership has explored entrepreneurial leaders' skills and characteristics (Rotefoss & Kolvereid, 2005; Harrison, Burnard, & Paul, 2018). The literature claims that entrepreneurial leaders, in particular, must have relevant skills and experience (Chen, 2007), particularly creativity (Amabile, 1997), interpersonal skills (Watson et al., 1995), and opportunity orientation (Ardichvili, Cardozo, & Ray, 2003), this can help them in the future to build the necessary reputation, encouraging other staff to pursue their objectives.

These characteristics of an entrepreneurial leadership style set it apart from other types of leadership. For example, entrepreneurial leaders can create a vision, assemble the team, and lead the team toward that vision to achieve desired results (Renko et al., 2015). In addition, entrepreneurial leaders put effort into encouraging the team members to follow their path in creating strategic value for the business (Ireland et al., 2009). Furthermore, the leaders and businesses need to have a stable relationship (Xing et al., 2020) to develop new technological solutions and products in the business, as it requires a team effort to make an effective process (Chen, 2007; Huovinen & Pasanen, 2010). Moreover, entrepreneurial leaders promote team spirit and self-efficacy in the business by building trust and respecting the needs of the staff (Breugst, Domurath, Patzelt, & Klaukien, 2012). Entrepreneurial leaders are also aware of external or internal factors impacting the project, anticipate the threat, and deal with it efficiently by gathering support from the stakeholders and providing the required resources to achieve the desired results. Finally, entrepreneurial leaders are good communicators and encourage a collaborative culture in the business to explore new opportunities for better

performance, thus enhancing the creative and innovative abilities of staff (Chen, 2007; Soomro & Shah, 2022).

Previous studies show that staff's intellectual agility has a positive influence on SME innovation (Santos-Rodrigues et al., 2010). Ximenes et al. (2019), Miao et al. (2019), Yang et al. (2019), and Dabic et al. (2021) demonstrated that entrepreneurial leadership has a substantial role in mediating the intellectual agility of staff in the innovation of small businesses, ultimately boosting the performance of the business.

2.12 Understanding other entrepreneurial leadership representing models

There are various models of entrepreneurial leadership. In this section, these models will be briefly discussed while presenting the rationale for employing Renko et al. (2015) ENTRELEAD scale in this study.

Entrepreneurial leadership style is distinctive, and it focuses on the recognition of opportunities, exploiting them and turning them into entrepreneurial goals (Renko et al., 2015). Previously, Northouse (2007) characterised the process of leadership as involving both leaders and followers who work together to achieve a common goal. Entrepreneurial leadership plays a significant role in the success of an organisation when compared to other leadership styles. This is because of the ability of entrepreneurial leaders to recognise entrepreneurial opportunities and the ability to gather the resources for the better development of the business. In addition, entrepreneurial leaders are proactive and innovative in their approach and always look for new opportunities. Furthermore, entrepreneurial leaders look for like-minded people to work on a project instead of changing the minds of people (Thornberry, 2006). Therefore, the application of entrepreneurial leadership is effective in all types of businesses irrespective of their size. In the literature, different models have been introduced to understand the concept of entrepreneurial leadership style.

Gupta et al.'s (2004) model of entrepreneurial leadership is widely accepted in the literature of entrepreneurial leadership style. This model focuses on a two-dimensional concept: scenario enactment and cast enactment. In this model, Gupta et al. (2004) discussed the two dimensions of entrepreneurial leadership, scenario enactment, which is related to the creation of an opportunity in the business, and cast enactment, which is related to assembling the team with

expertise and competence and the gathering of appropriate resources to execute the plan according to the requirements.

Morris et al. (2008) mentioned that the main drawback of the Gupta et al. (2004) entrepreneurial leadership model is that it does not consider the basic dimensions of entrepreneurial leadership. For example, the Gupta et al. (2004) model does not consider the basic dimensions of pro-activeness, innovativeness and risk-taking; rather, it proposes a similar concept to transformational leadership. For Fontana and Musa (2017), entrepreneurial leadership is a type of leadership that combines entrepreneurial orientation, entrepreneurship, and entrepreneurial management to extract value from diverse talent. This type of leadership also takes place in environments where opportunities exist to generate wealth for stakeholders through active participation and the creative exploitation of resources in response to identified needs and opportunities. In addition, an entrepreneurial leadership style also provides leaders with methods for maintaining competitive advantage and encourages behaviours in leaders that facilitate innovation and adaptation. Strategic, communicative, personal, and motivational are the four primary facets of entrepreneurial leadership (Fontana & Musa, 2017). The ability to thoroughly establish an organisation's system to ascertain its existing plans and social and financial capital is known as the strategic dimension.

Thornberry (2006) proposed an entrepreneurial leadership model by classifying leaders as catalysts and activists; he further divided them into four dimensions: accelerator, integrator, miners, and explorers. The Thornberry (2006) entrepreneurial leadership model is the only model amongst all entrepreneurial leadership models that explains individual and organisational leader behaviours. Activist leaders take the initiative as entrepreneurs and seek new opportunities, whereas catalyst leaders create an innovative climate in the company by stimulating innovative behaviour in their subordinates, hence promoting innovation in the company. However, there is no substantial evidence available from the literature that validates this model (Selvaraja, Akmaliah & Pihie, 2017).

Although recent research has explored various models of entrepreneurial leadership, no adequate progress has been made around conceptual development and how to assess the characteristics and behaviours of entrepreneurial leaders (Renko et al., 2015). Renko et al. (2015) have developed a tool, ENTRELEAD for the assessment of entrepreneurial leadership. Their study further indicates that previous literature on the assessment of such leadership is

scarce. Even if the literature exists, it has not considered the entrepreneurial opportunity. Furthermore, Gupta et al. (2004) in their study developed a scale using secondary data from the GLOBE study to assess entrepreneurial leaders' roles. However, it did not consider the recognition of the opportunity or the exploitation of the opportunity. Chen's (2007) study on high-technology businesses suggested that entrepreneurs who are risk-takers, proactive and innovative can stimulate these abilities in their team members and enhance their creative and innovative abilities. However, Davidsson and Wiklund (2001) pointed out that it is not clear how the strategy characteristics of leaders can translate into team members at the firm level. Being a risk-taker, proactive, and innovative may describe entrepreneurs; it does not essentially make them a leader, as a leader should be capable of enabling their team members by influencing and motivating them (Yukl, 2008). Existing studies available in entrepreneurial leadership do not look into the staff's perception of their leaders. However, Renko et al. (2015) proposed a valid and reliable scale to assess the staff's perception of entrepreneurial leadership. The scale for assessing entrepreneurial leadership was created specifically for the situation where employees of an organisation evaluate the entrepreneurial leadership skills of their managers (Renko et al., 2015).

The construct of entrepreneurial leadership is explicitly defined in Renko et al.'s (2015) study, and it is closely related to transformational leadership, entrepreneurial orientation, and creativity-supportive leadership. The study also focuses on environmental and organisational factors because these factors moderate the effect of entrepreneurial leadership.

This study does not treat entrepreneurial leadership as a strategic management construct or a new venture phenomenon, as it is a leadership style (Covin & Slevin, 2002). The reason this study uses this scale to map entrepreneurial leadership in Pakistani SMEs is that it is not organisation, industry, or culture-specific, but it is versatile and is applicable to established and new businesses equally.

Entrepreneurial leaders are good at recognising and exploiting new opportunities in a business and act as role models for team members in the business. In addition, entrepreneurial leaders enable their followers to pay attention to business goals by encouraging and motivating the team members towards the business goals. The eight-item ENTRELEAD scale comprises leader behaviours as well as leaders' attributes, and it helps in assessing the perception of the staff who are being influenced by the leader. This model explores seven key elements:

innovativeness, creativity, passion and motivation, tenacity and persistence, bootstrapping, a clear vision of the future, and a willingness to take risks. Since the development of this scale, the ENTRELEAD model has been used in high-technology startups to assess entrepreneurial leadership influence on employees' innovative behaviour (Bagheri, Newman & Eva, 2020).

With the construct validity of entrepreneurial leadership firmly established, there arises a need for a more in-depth exploration of various leadership behaviours that contribute to the advancement of knowledge. This includes an examination of empowering behaviours, as outlined by Conger and Kanungo (1989), which focuses on promoting autonomy and self-efficacy among team members. Furthermore, the enabling behaviours described by Uhl-Bien and Marion (2007) and Yukl (2013) are important, as they facilitate collaboration and resource access, thereby creating a supportive environment for innovative thinking. Moreover, the directing behaviours identified by Muczyk and Reimann (1987) play a vital role in providing clear guidance and strategic vision, while the rewarding behaviours highlighted by Podsakoff and Todor (1985) underscored the importance of recognition and incentives in motivating teams to achieve high levels of performance. This study aims to enhance the understanding of these missing conceptual elements.

2.13 Conceptual framework

The proposed study's goal is to investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SME sector to facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model. Upon conducting a thorough literature review, it has been noted that while leadership and entrepreneurship are widely discussed, the concept of entrepreneurial leadership is still a matter of debate. Additionally, there are notable gaps in the existing literature on this subject (see section 2.9). Consequently, this study has formulated a preliminary conceptual framework for further research based on the literature review. The primary focus of the study is on three key concepts: entrepreneurial leadership style, employee innovative behaviour, and the business innovation environment, as per the research objectives. These concepts are illustrated in Figure 2.1.

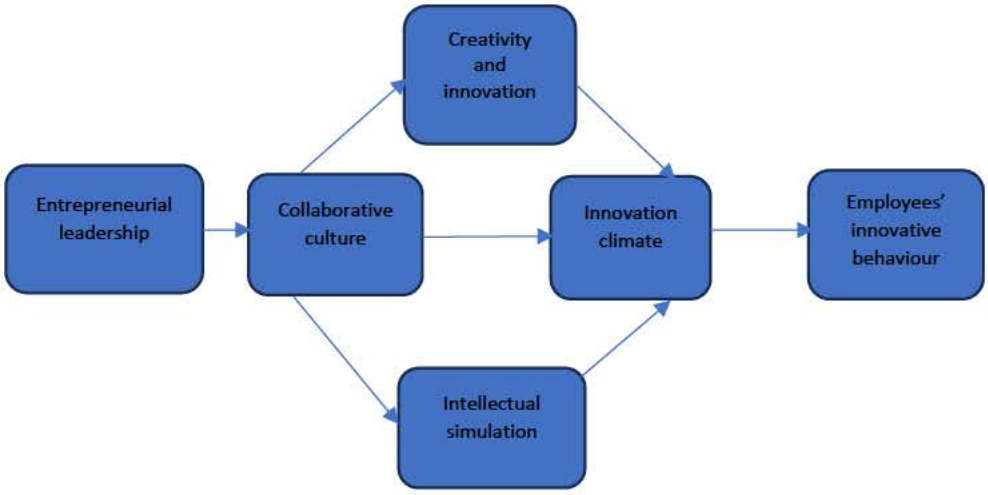


Figure 2.1: Conceptual Framework. Source: Author

2.14 Research questions

This study intends to investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SME sector to facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model. To achieve this, this phenomenological study focuses on the lived experiences of leaders and managers to understand their perception of the leadership style.

The gaps indicated in section 2.9 informed the limitations of the ENTRELEAD model and raised several key issues about the construct. Firstly, unlike the traditional leadership definitions (e.g., Northouse, 2018), which emphasise the importance of the leader-follower relationship, the ENTRELEAD model has been criticised for often lacking a direct focus on influencing and engaging followers. This omission raises questions about its completeness in capturing leadership dynamics, particularly in terms of empowering and recognising followers. Secondly, this omission of the ENTRELEAD model and other entrepreneurial leadership scales, like Gupta et al.'s (2004) construct, has been criticised for relying on outdated or limited datasets (e.g., GLOBE data). This reliance on outdated data could bring into question as to the relevance and effectiveness of assessing entrepreneurial leadership in contemporary settings. Finally, the ENTRELEAD model also focuses on the leader's risk-taking tendencies, without arguably not fully capturing how leaders empower their followers or how those employees

perceive actions taken by leaders to enhance innovation within the company, which is essential for fostering an innovative culture.

Reflecting these identified weaknesses, this study contends that the ENTRELEAD model requires refinement to fully encompass entrepreneurial leadership's relational and empowerment-based aspects. This emphasises the necessity for further research in this field to examine behavioural tendencies beyond role modelling and influence in order to comprehend how the enactment of leadership inspires entrepreneurial behaviour, but from a Pakistani perspective. Based on these identified weaknesses and omissions, this study will ask:

1. How do entrepreneurial leaders of Pakistani high-technology SMEs perceive their influence in promoting a creative working environment to facilitate innovation?
2. What do managers of Pakistani high-technology SMEs believe that leaders need to do to enhance innovative behaviour?
3. What leadership style is employed by leaders of Pakistani high-technology SMEs to promote an innovative work environment?

The best way to understand what entrepreneurial leaders do, who they work with, and why they adopt certain behaviours is through a qualitative study. Hence, a mini case study research design was chosen, guided by constructivist philosophical presumptions. The study will explore these questions through a qualitative study using semi-structured interviews to collect the perceptions of those CEO/leaders and managers from high-technology SMEs in Pakistan.

2.15 Summary

The literature review showed that the area of leadership and entrepreneurship is growing and has provided a critical understanding of organisations and individuals. The literature review provides a comprehensive analysis of the intricate connections between entrepreneurial leadership and various leadership theories, with a specific focus on transformational leadership. It underscores the pivotal role of entrepreneurial leadership in nurturing innovation, adaptability, and overall business success, particularly within SMEs. However, previous studies showed that the focus has been on leadership styles and the influence on staff behaviour at the workplace; there is not much evidence available on the leadership influence on innovative staff behaviour and how to enhance it, especially in the area of entrepreneurial leadership style,

which is relatively new. Additionally, the area of entrepreneurial leadership is still in its infancy and lacks the tools necessary to accurately describe and assess the behaviours and traits of entrepreneurial leaders. Because prior studies on entrepreneurial leadership have primarily examined larger, more established businesses, the conclusions may not apply to newer, smaller businesses (Leitch & Volery, 2017).

The literature review of entrepreneurial leadership gives a broader view of how leadership helps in developing an innovative environment at both organisational and individual levels. The presented literature review looks deeply into the different characteristics of the organisational environment, for example, the way leaders operate and help the followers in the innovation process. The review explores the concept of intellectual stimulation as a crucial element of leadership, emphasising its capacity to fuel creativity and innovation, especially when coupled with intellectual agility. Moreover, it explores the specific challenges that entrepreneurial leaders encounter in diverse contexts, with a particular emphasis on SMEs in Pakistan, highlighting the imperative of cultivating collaborative environments and empowering employees. The insights garnered from this review offer valuable perspectives on how entrepreneurial leadership can drive organisational expansion, spur innovation, and effectively address obstacles in a fiercely competitive business landscape.

The study focuses on how entrepreneurial leadership influences staff behaviour. The study aims to investigate the influence of entrepreneurial leadership on staff behaviour in advancing innovation in high-technology SMEs in Pakistan; both these areas have been discussed in the literature review. The literature review also reveals that there are other factors which can enhance innovation, such as employee self-efficacy and organisational environment. Therefore, the study focuses on all the relevant points discussed in the literature. Although entrepreneurial leadership has been studied in different settings, there are few studies which have focused on the perspective of developing economies. Furthermore, there is limited research available on entrepreneurial leadership and its influence on the innovative behaviour of the staff.

The research will immensely contribute to the study of entrepreneurial leadership and what factors play an important role in enhancing innovation in high-technology SMEs, most importantly in the case of developing countries. The study will also contribute to the literature

on entrepreneurial leadership in a developing economy, especially in the case of high-technology SMEs in Pakistan, which is still an unexplored area. The justification for qualitative research, phenomenology, issues of credibility, and ethical practices are all covered in Chapter 3.

Chapter Three
Methodology

3.1 Introduction

The process of investigation and how it is going to take place is determined by using a methodical approach; the research technique seeks to address the research topic (Kothari, 2004). The reason for carrying out the research project is to achieve a certain objective or goal, and it goes through a certain process. To constitute research validity, the basis of the research needs to be underpinned by assumptions; therefore, it is critical to select the appropriate research methodology early in the process to accomplish the study's goals (Myers, 1997). The methodology to conduct the research depends on the scope and nature of the study, and on the availability of the data. This shows that there is no standard way or methodology to conduct the research and there is no right or wrong methodology, but it depends on the nature of the study (Bell, 2005).

Before engaging in the process of collecting and analysing data, it is very important to choose the right philosophical assumptions for the study's methodology (Brown & Sice, 2003). Therefore, it becomes essential to become familiar with the weaknesses and strengths of the chosen methodology while setting out the plan for the research study; it will be very helpful in making accurate and informed decisions and the appropriateness of the selected methods for the chosen study. The researcher ought to be knowledgeable about the constraints of the research methodology, keeping in mind the nature of the phenomenon on which the methodology will be applied, because each study is unique in its nature (Easterby-Smith et al., 2002).

It is widely argued that research philosophy has more importance than the research methodology; the philosophy of the research should be underpinned according to the stance of the researcher. Moreover, research methodology should be chosen on that stance because it is crucial for the researcher to understand what the researcher wants to achieve from the study and base the methodology on those aims (Holden & Lynch, 2004).

A research paradigm is used to determine the philosophical stance of the research, and it is a starting point. A research paradigm is defined as a conceptual framework formed by the linking of various sets of presumptions regarding the truth and world that has a consensus of the scientific community for the organised study (Kuhn, 1962). A research paradigm importance

is vital in shaping the methodological approach because by following the chosen methodology, the researcher will investigate the study.

The proposed research topic for the study was formulated based on the literature review, *Adaptation of entrepreneurial leadership in Pakistani high-technology SMEs to facilitate innovation: Insights from the ENTRELEAD model,* and to decide which philosophy best fits the research and the values of the researcher. The next step was to define the research philosophy for the research and how it impacts the research design. However, Bell (2005) stated that there is no standard way to conduct research, but each research project can be completed differently based on the researcher's philosophical position.

This chapter's objective is to outline the approach and philosophy for the suggested study area. To establish this, it is important in the process to understand and critically review different research philosophies. It is essential to comprehend the philosophies in their entirety as this helps to develop the perspective of the research against the other available alternatives (Johnson & Clark, 2006). Therefore, in this chapter, the various research philosophies will be briefly discussed, along with their ramifications, and this will help to build a better understanding of different philosophical perspectives. Next, these perspectives are critically reviewed and the understanding of the influence they have on the research objective, research design and values of the researcher is discussed. Finally, the choice of approach for the proposed research is presented.

3.2 Research Philosophy

3.2.1 Historical Background

In scholarly research, the humanistic and the scientific schools of thought have influenced the paradigm study. Both schools of thought have different epistemological and ontological views (Amaratunga et al., 2002). Scholars disagree on the classification of epistemological frameworks and how to apply them in contemporary research in management sciences, information systems and organisations. Classification has historically been based on the division of positivism and anti-positivism (Wicks & Freeman, 1998) or positivism and interpretivism (Weber, 2004; Goldkuhl, 2008). Other classifications make distinctions between positivism, post-positivism, critical theory constructivism, and participatory inquiry (Amis & Silk, 2008) between different currents within interpretivism and post-positivism (Cunliffe, 2011); between positivism, interpretivism, and critical research (Orlikowski & Baroudi, 1991);

and between foundational, quasi-foundational, and non-foundational epistemological frameworks (Amis & Silk, 2008).

3.2.2 Ontology

In philosophy, ontology can be defined as the study which studies the essence of existence and the nature of reality (Burrell & Morgan, 1979). Objective and subjective perspectives are known to be the main ontological perspectives. The existence of reality as a concrete structure is the view of objectivism; reality is a tangible entity, and it will remain there to exist irrespective of any human action or belief (Holden & Lynch, 2004). Furthermore, it will never change, as it was there before humans, and it will remain to exist after humans. This is the view widely advocated by natural sciences. Similarly, when the same idea is applied to social sciences, a social phenomenon exists without the involvement of any social actors, and it does not influence its construct. Conversely, subjectivism projects the idea of reality that the social actors create it, and the world is a projection of the people living in it, and this creates the reality through their minds (Morgan & Smircich, 1980). The objectivist believes that there is only one reality that exists and there is no alternative to it, but the subjectivist believes that reality is a projection of the human mind, so there is a possibility of the existence of multiple realities. According to the view of the subjectivist, a social phenomenon is created by the interaction of the individuals, which in the process changes with their actions (Smircich, 1983).

3.2.3 Epistemology

The study of knowledge, its nature, and how it is obtained is known as epistemology and is mostly based on positivism and constructivism (Becker & Niehaves, 2007). Positivism explains the idea of the research from a scientific stance by measuring and observing through experimentation of reality and working on law-like generalisations (Hussey & Hussey, 1997). When a similar idea is applied to social sciences, it is assumed that the data is acquired by the researcher without involvement in the research process and not interfering with the research subject, like the investigative analysis of scientific research (Remenyi et al., 1998). In the process of producing the results leading to the law-like generalisation.

According to the interpretivist, social phenomena are quite different from natural phenomena, and it is unique in their nature. The social phenomenon is a construction of the action of the social constructs, and it does not abide by the generalised laws, as it is too complex to reduce to formulae and laws (Crotty, 1998; Rowlands, 2005). In a phenomenological paradigm taking an opposite stance to positivism, interpretivist studies the social phenomenon in its own context

and establishes the relation between the research subject and the researcher, where both interact with each other. In interpretivist research, human beings play the role of social actors by becoming part of reality and the data is derived by involving the real world to produce knowledge through interaction with the research object. Therefore, interpretivists can study the phenomenon more discretely and can have a point of view of its own on the phenomenon (Holden & Lynch, 2004). The outcomes of such studies cannot have law-like generalisations. Interpretivism is the understanding of the researcher of the phenomenon and cannot be established as an absolute truth.

3.2.4 Axiology

Axiology addresses the essence of the research, and it should be in line with other *ologies*. For example, what a researcher values and his/her opinions, and how they influence the analysis while conducting the research. Silverman (2013) stated that axiology helps to understand the importance of the influence of the researcher's opinions while collecting the data and analysing it for the research. It shows that the researcher's values and opinions matter in the research process, what approach the researcher adopts, for example, emic or etic, and the axiology will have a great deal of influence on the research outcome.

3.3 Research paradigms

In this section, three research paradigms are discussed, focusing on different alternatives and whether one is better than another, and which one is more scientific in its nature in focusing on the research problem. To understand the theoretical and methodological approach is a point of focus, and most importantly, practical relevancy is considered, as it is very important in the field of science, especially the social sciences (Tucker & Parker, 2012). In the field of science, for any research, the essential part is the contribution to the practical application (Hambrick, 1994; Ittner & Larcker, 2002).

3.3.1 Realist perspective

The realist perspective holds that reality exists independently of human perceptions (Phillips, 1987) and can be studied through both empirical investigation and contextual interpretation (Saunders et al., 2009). Emerging in the mid-1970s (Bhaskar, 1975, 1986; Burrows, 1989), it bridges positivism and constructivism by recognising an external reality while acknowledging the role of perspectives in shaping knowledge (Schwandt, 1997). The following sections will elaborate on the philosophical foundations, key debates, and methodological implications of realism on the proposed research study.

3.3.2 Realism

Phillips (1987, p. 205) defined philosophical realism as the view that entities exist independently without being perceived or having theories (investigation) about them. Realism developed in the mid-1970s as an approach having its own unique nature. Burrows (1989) and Bhaskar (1975, 1986) are some of the early authors of this approach. Schwandt (1997) explained scientific realism as the approach that studies things as they are in reality in this world. For most of the early part of the 20th century, these views were rejected by positivist and constructivist researchers, but now they are considered as being very important in philosophical discussion (Salmon, 2005).

In the philosophy of social sciences, realism has been a very important approach over the past few decades (Baert, 1998, pp. 189–190). Other philosophies have also been dominated by realism (Miller, 2011). For example, traditional realism argues that to create knowledge, only measurable phenomena should be considered, by focusing on laws such as generalisations. However, internal and realists argue that reality cannot be observed, and it will only generate indirect evidence instead of the real evidence (Easterby-Smith et al., 2012). When conducting empirical research, measurements and evidence can detract from the reality, so only real mechanisms by explaining properly in real context should be considered (Saunders et al., 2009). Many realist philosophers disagree with the on-going and unresolved debate on realism. However, there is another serious issue which confronts realism, and that is alternative positions. The idea of a real world in which people interact and produce theories and concepts, which refer to the real world, has gained power and philosophical attention.

Critical realism is the most famous manifestation of realism in social sciences; traditionally, it has been associated with the work of Bhaskar (1978, 1989, 2011). Saunders et al. (2009) proposed that realist perspectives are either value-free or value-laden, and they are biased by cultural experiences and world views. A critical realist believes there is a real world, which exists without our perception, and it is independent of construction and theories. Agreeing with epistemological relativism and constructivism, the world we perceive is a construct of our own point of view and our own perspective of it. As Putnam (1999) explained, there is no possibility of attaining a single point of view to understand this world and its reality; he describes it as a "God's eye view" which transcends all perspectives.

In the realism paradigm, the quantitative approach is acquired for the methodology to prove a theory or law, such as generalisations such as a traditional realism. Critical realism also uses

qualitative techniques when focusing on explaining of a phenomenon (Wahyuni, 2012). Most techniques used in realist research are like laboratory experiments, such as forecasting and surveys (Holden & Lynch, 2004).

3.3.3 Influence of realist perspective on research

A realist perspective implies that entrepreneurial leadership and staff behaviour independently exist in an organisation. In addition, as from a post-positivist point of view, both leadership and staff behaviour can be observed and measured; this observation helps to boost innovation in the business. Realists can also be easily described in the reduction approach. If leaders have entrepreneurial leadership attributes, it will help to influence the staff behaviour by enhancing creativeness and innovativeness in their behaviour. Which eventually will help the business to be more innovative in nature, and it will increase the innovation environment in the business.

The rationale behind the study and the research topic is that the proposed research area has not been widely explored, although there are many studies which have researched entrepreneurial leadership and how it influences staff behaviour in advancing innovation in businesses. However, there remains a gap in the literature, since it is a recent phenomenon; entrepreneurial leadership has not been thoroughly studied in different circumstances and situations. Furthermore, there is a lack of diversity in existing knowledge. How both entrepreneurial leadership and staff behaviour help to boost innovation in a business is studied through the lens of a realist taking up a post-positivist approach, and this is the purpose of the thesis. Business innovation can be enhanced if entrepreneurial leadership enhances staff behaviour. Thus, business innovation is directly dependent on the entrepreneurial leadership and staff behaviour.

The chosen research perspective also influences the research design and process of the research. Numerous case study types can be found in positivism and post-positivism to test the hypothesis or theory. Eisenhardt (1989) described exploratory inductive research, which aims to identify a pattern of research using inductive reasoning. This is based on multiple case studies without considering any underlying explanation. Deductive study is the second type of research study and is employed to validate a theory or hypothesis (Dube & Pare, 2003). This kind of method is heavily dependent on hypothesis testing (Yin, 2009). By using a realist approach in methodology (Easterby-Smith et al., 2012) to see if the study's hypothesis is true, quantitative methods will be adopted for the research process. The study defines both the independent and dependent variables for testing, using the conceptual framework. To prove the existence of a link between dependent and independent variables, statistical techniques are

adopted using regression analysis. The study applies these techniques on a large sample of data using survey analysis.

3.3.4 Contribution to knowledge

The potential contribution of the realist approach to knowledge can be described according to the above discussion of the influence of the realist perspective on research. This research will help to close the research gap, as the study will add empirical evidence of the link between innovative staff behaviour at work and entrepreneurial leadership. The explicit research on entrepreneurial leadership and the effects it has on the workplace, which has previously received comparably less attention the study will contribute to the knowledge base of entrepreneurial leadership and its influence on innovative work behaviour of staff. The study will also extend the concept of leadership styles in the field of innovation and behavioural science.

The findings of the research could have several implications for practices. Firstly, it will help the current and new businesses by promoting an innovative environment at the workplace for growth, and to improve competitiveness. The study will help business leaders to recognise the importance of entrepreneurial leadership in creating an innovative and creative environment, and the key role entrepreneurial leaders play in enhancing the capabilities and shaping the confidence of staff.

3.3.5 Constructivist perspective

The constructivist perspective, rooted in the interpretivist paradigm, emphasises that reality is not an objective entity but is instead constructed by individuals through their experiences and interactions. Originating from the work of Piaget (1967), constructivism views knowledge as subjective, shaped by reflection, experimentation, and social processes rather than detached observation. It highlights that understanding is developed through lived experiences, language, and cultural tools, making reality a human construct that varies according to personal and social interpretations. The following sections of the chapter will discuss constructivism and the constructivist perspective's implications on the proposed research study.

3.3.6 Constructivism

Constructivist epistemology was first introduced by Piaget in 1967. Constructivism, for Honebein (1996), is a philosophy in which individuals create their own perceptions of the world from their knowledge of the existing world by reflecting on their own experiences. From an ontological base, people construct their experiences (Cashman et al., 2008). Furthermore,

constructivism is based on the subjectivist point of view as opposed to the realist objectivist point of view (Saunders et al., 2009). In addition, constructivist philosophy refers learning to the process of discovery of knowledge, not through traditional means but rather through experimentation (Doğru & Kalender, 2007). Finally, constructivism explains reality as a construct of the human mind and is produced by having the experience in the real world; thus, constructivist philosophy perceives reality as subjective.

According to the ontological position of constructivism, reality is not independent but rather it is constructed by the individuals and in some cases, it is also presented as the projection of human imaginations (Morgan & Smirich, 1980). Therefore, the reality changes according to the interpretation of humans (Saunders et al., 2009). There is diversity in these schools of thought, but they share one common phenomenological stance: that reality and humans are related through living experiences (Sandberg, 2005). Knowledge about reality can only be gained through social constructions, documents, tools, languages, and other artefacts which play a significant part in helping to construct the perceived reality (Klein & Myers, 1999). Knowledge cannot be gained through observing reality or by measuring it; it needs to be experienced in different contexts to be understood. Constructivism acknowledges the existence of the real world outside human consciousness, but constructivism is more interested in the human mind's construction and evaluating the extent to which these constructions are true in creating the external reality.

Constructivism uses a qualitative methodological approach for research purposes, but it is not always limited to it. The constructivist paradigm mostly uses a narrative study for research purposes, such as case study, descriptive study, phenomenological study, and grounded theory (Kim, 2005). All these methods have one commonality amongst them, which is that a great deal of time is spent on comprehension, to study the phenomenon thoroughly.

3.3.7 Influence of the constructivist perspective on research

In this section, the study applies the constructivist perspective on the proposed research topic: *Adaptation of entrepreneurial leadership in Pakistani high-technology SMEs to facilitate innovation: Insights from the ENTRELEAD model*. The topic is seen from the subjective ontological point of view. Both entrepreneurial leadership and staff behaviour are independent of any actors, unlike the realist approach, where both are proposed as mental objects. The study is presented as a construct of action and strategy experienced by the participants in the actual reality.

In a social environment, every individual perceives things differently according to their own understanding and experiences. Therefore, the interpretation of each individual will be different in his or her own context. Therefore, entrepreneurial leadership will not be constant in its influence on staff behaviour but will evolve differently and the influence will be different according to the perception of each individual. Moreover, the result of a business being more innovative will be independent of the direct influence of entrepreneurial leadership, and it will vary in different contextual forms. This independent approach of understudy actors will interest the researcher in terms of understanding and describing the phenomenon of entrepreneurial leadership and how it influences innovative practices.

This discussion and background provide the rationale and the research purpose. To understand the phenomenon with more realism, the researcher explores the area of entrepreneurial leadership and its influence on staff behaviour extensively. During the investigation process, all the internal and external factors that affect are considered and studied. The study explores the phenomenon rather than predicting it or verifying the theory but rather generates it.

The study does not require the formulation of a hypothesis prior to the study, but a hypothesis may be generated if it is required for the research. This depends on the research design, whether a hypothesis is required or not. A qualitative research approach is normally associated with interpretivism, where the researcher becomes part of the research to understand the phenomenon more fully by studying the experiences of the participants. To understand the phenomenon in its real state, the researcher engaged with the activities carried out by the participants in the natural setting to experience what they were experiencing.

The constructivist paradigm usually uses tools, such as interviews, visual data analysis, observations and documents, to gather the data (Doğru & Kalender, 2007). The researcher is very flexible with the interview process and usually conducts semi-structured or dialogue such as a discussion to conduct interviews. The researcher prefers to ask open-ended questions, so the participant can explain and inform the researcher with their unique perspective. In regard to the proposed research, the stress is on the characteristics of entrepreneurial leadership and its influence on the participants and their ability to be more innovative and creative in this kind of environment.

The researcher’s own values also play an important role, as an interpretivist, as while conducting the research and interacting with the participants during the process, the researcher will come up with his/her own understanding of the phenomenon. The researcher for some

cases uses the focus group discussion to yield rich data from different sets of people from the same department with the help of a moderator. This helps the researcher to reach the core meaning of the phenomenon and to avoid any bias while interpreting the data (Saunders et al., 2009).

Logical data analysis strategies are adopted for data analysis to draw reasonable conclusions from the study. In data analysis of the constructivist paradigm, the researcher constructs the picture for the phenomenon from the point of the research start, to gather the data to start examining it (Bogdan & Biklen, 1992). Therefore, it is very important for the researcher to keep track of his own influence on the research from the start and keep looking at it closely throughout the research journey, to avoid any kind of personal bias. This helps the researcher to truly paint the picture of the phenomenon in its most natural setting.

3.3.8 Contribution to knowledge

A constructivist research outcome is the potential contribution to the knowledge, as long as the simulation process has been successful and solutions to the research questions have been discovered. The outcome would be that an entrepreneurial leadership style is adopted by managers to enhance staff capabilities to be more creative and innovative, which results in the business being more innovative, boosts business performance, and allows behavioural and environmental changes of the business. The results can also be used to improve the knowledge and efficiency of the overall workforce at different hierarchical levels. This will help the business to better understand how entrepreneurial leadership fits better and helps to improve the functions.

The contribution to the theory will be immense, as the study will expand the field of leadership and will contribute to the existing knowledge base of entrepreneurial leadership style and its influence on organisational behaviour. The study explores certain areas of staff organisational behaviour, such as dedication, motivation, and detail to attention, strategy building and creativity. The characteristics of entrepreneurial leadership may be novel in the research area regarding the field of leadership and innovation. The study will advance knowledge of entrepreneurial leadership style and its effects on the overall improvement of innovativeness in business.

3.3.9 Interventionist perspective

The interventionist perspective in research emphasises the active involvement of the researcher in the phenomenon under study. Unlike traditional approaches, the interventionist method

requires the researcher to immerse themselves in the research setting, playing dual roles of observer and participant. Rooted in action research and constructive research traditions, it positions itself between theory and practice by using both qualitative and quantitative methods to generate deeper insights. This perspective highlights the researcher's role as a catalyst for change, where their contributions become an integral part of knowledge creation. The following sections explores the philosophical underpinnings of interventionism, examining its core principles, ongoing debates, and the methodological implications it holds for the proposed research study.

3.3.10 Interventionism

Recently, in management studies, interventionist research methodology has been of interest to the researcher (Suomala, 2009). However, in empirical publications, the interventionist research methodology has not been widely advocated; this may be because the interventionist approach is described as an action research and constructive research approach (Jonsson & Lukka, 2006, pp. 9-12). Interventionist research methodology has its roots from the early 20th century. It can find its base in different qualitative studies, but it is not limited to them, and it is not entirely based on these studies. The method is different from traditional research methods; in the interventionist approach, the researcher is immersed in the phenomenon being studied, and at the same time, performing dual roles (Jonsson & Lukka, 2006, p. 5).

The interventionist paradigm is still relatively new, and knowledge about the approach is under development. The approach has not been widely used in management and accounting, but it has its roots in the field of engineering (Suomala, 2009, p. 10). Interventionist research originates from action research, where the interventionist approach uses learning theory methods to understand the practice more fully (Westin & Roberts, 2010). It can be said that the interventionist research lies somewhere between practice and theory. To understand the phenomenon and create knowledge, in this approach, the researcher has to become a part of the research. The researcher has to act as a catalyst, to become a part of the reality, and to understand the reality more fully, understand how things change and what causes the change (Westin & Roberts, 2010, p.8). Hence, the interventionist shows that what the researcher provides becomes an intrinsic part and contribution to the knowledge (Westin & Roberts, 2010).

The interventionist uses both qualitative and quantitative methods to investigate the phenomenon. In addition, there is a diversity in the research design, so it does not allow either

approach to dominate but rather helps to dive deep into the research using both methods to create a large pool of data to understand the study and create knowledge. This makes the interventionist unique by combining both methods to create deeper meaning and knowledge from the study.

In this study, to show the influence of the interventionist perspective on the proposed research topic, *Adaptation of entrepreneurial leadership in Pakistani high-technology SMEs to facilitate innovation: Insights from the ENTRELEAD model*, an action research approach was considered to understand the influence on the research goals and objectives. As this approach is in its early years in the field of management, no generalised conclusion can be drawn from it.

3.3.11 Influence of interventionist perspective on research

As this study has been carried out from the interventionist perspective, the researcher has applied action research on the proposed topic. This helps to improve the condition of the business (innovativeness) (Lingard et al., 2008; Whitehead et al., 2003). Entrepreneurial leadership will be a unique and core matter of the organisation. The ability of the business to enhance its innovation will have effective entrepreneurial leadership attributes in its managers, which will help to shape the staff behaviour and make them more innovative in a creative environment.

The rationale behind the research is that the leaders' entrepreneurial leadership style would influence the behaviour of staff, and it will result in enhancing business capabilities to be more innovative. In addition, entrepreneurial leadership could be examined and investigated by the researcher participating and actively involved in a research environment, in this case, experiencing the business work environment. It is required by action researchers to develop a range of skills and to use them by planning, observation, critical evaluation and reflection, to accomplish the research's goal. The strength of action of a researcher lies in finding solutions to the practical problems by engaging in the research and creating activities (Meyer, 2000).

According to Cardno and Piggot-Irvine (1996) and Rowley (2003), from the large base of literature available, it is evident that action research is cyclical in its nature. A framework for action research comprises three phases, and all three phases are cyclic activities. The first stage of the research process includes a situation analysis, which is a pre-stage of the study to analyse the context and the necessity of intervention. Intervention is the next stage, which is about acting on the plans and strategies which were drawn out in the first stage; it is also known as the implementation of activities. The third stage is the evaluation, which focuses on the

outcomes of the research to see whether the desired results from the intervention have been achieved, and the appropriate action taken during the process.

Different tools are used to collect data for action research, most importantly the reflective tools, such as case studies, focus groups, surveys, interviews, operational statistics and participants' observations. For Dumay (2010), the role of the researcher is that of a catalyst, and it is essential. The interventionist paradigm is similar to the constructivist paradigm if considering the influence on data, but an interventionist researcher not only acts as an observer but also becomes a participant in the research process to find the reality of the phenomenon. Action research not only helps in solving the problem but also in forming the theory, as it creates a large pool of data from different sources and thus improves the practice.

3.3.12 Contribution to knowledge

To diversify the research approach, action research can be an option for the researcher. Action research in nature, is a collaborative and participative study. The outcome of action research is achieved through a learning process by producing a solution to the problems with the help of collaborative groundwork, which helps in theory building. In the case of this study, the action research will contribute to the theory by producing novel knowledge in entrepreneurial leadership and its influence on staff behaviour. Furthermore, it will be based on the experiences from a natural work environment where the researcher participated and observed the phenomenon. The research material produced will be of high quality using action research (Suomala et al., 2014, p. 311). The practitioner approach of the researcher in action research makes it stand out from the other two research paradigms.

The interventionist nature of the study will widely contribute to practice. The influence of the change implemented in the working environment will produce immediate results and will help to trigger an improvement in the practice in a business. The action research process is designed in such a way to produce solutions for a practical problem, with managerial and administrative issues put under strict scrutiny to understand and resolve the issues.

3.3.13 Influence on the choice of approach

In this section, after critically investigating the influence of three research paradigms on the proposed research problem, the influence on the choice of approach is discussed.

The field of leadership is vast and has been a point of interest for the researcher over the last two decades, with a particular interest in entrepreneurial leadership. The paradigm simulation shows that the proposed research topic is worth researching at this level, and there is potential

around entrepreneurial leadership and its effects on the workplace in businesses, especially the entrepreneurial leadership influence on staff behaviour and how it helps to enhance innovation in the business. As previously discussed, no single approach can comprehensively explain the phenomenon and contribute to the knowledge completely, just as no one approach is better than another. However, according to the viewpoint of a researcher, it is important to analyse the influence of the choice of research approach on the research problem, and which approach is more suitable for the problem, and which approach is preferred by the researcher, particularly when considering the researcher's skills and values.

Constructivism is one of the most appropriate philosophical approaches to investigate the proposed research topic, keeping in mind the researcher's values and skills. The constructivist approach will help to understand the phenomenon in the best possible manner to construct the concrete meaning of the research problem. The main objective of the study is to understand the social behaviour of people in a working environment, so the philosophical paradigm of constructivism is best suited to explore and have deep insight into the daily lives of individuals in the most natural settings. Furthermore, the method used by constructivism helps to gather unique information from the participants to get the best result from the research that is possible.

The reason for choosing the constructivist approach over realism is that the realist considers entrepreneurial leadership as an object which already exists; it is measurable and influences the business environment. Another reason is that realism opposes the values and skills of the researcher and takes up the attic approach towards the study. However, as a constructivist, the researcher is keen on taking up the interpretations and finding the meaning of the proposed research by an exploration process. To gather unique information from the participants on the influence of entrepreneurial leadership on their general working behaviour, for which an emic approach is best and suits the researcher's values and skills. The emic/attic approach of action research is also value-laden, as it also investigates the uniqueness of the phenomenon. The level of involvement of the researcher through the research process, by actively participating in the research environment, helps to reach the core of the phenomenon. In addition, this active involvement of the researcher by becoming part of reality helps to generate rich data for the analysis, and the results help to implement the new process immediately to improve the practice. The reason for not choosing the action research is that the skills and access required to carry out the research is not available to the researcher.

All three approaches influence the research problem in a different way, and each has its own unique way of approach and methods to reach the goals. As previously discussed, it is also advocated by many studies that not one approach is perfect and not only one approach can completely contribute to the knowledge base of the proposed study. The nature and uniqueness of each perspective gives the researcher the opportunity to review and analyse firstly, which philosophy supports the researcher's values and skills, and secondly, which method enables the researcher to reach the core objectives of the study. Thus, constructivism is a fundamental philosophical approach that accommodates the researcher's values and skills to investigate the proposed research topic. This approach will help to understand the phenomenon in the best possible manner to construct the concrete meaning of the research problem.

The reason for adopting the constructivist paradigm is that the study intends to interpret the findings and the meaning of the proposed research through an exploration process. To gather unique information from the participants about the influence of entrepreneurial leadership style on their general working behaviour, for which emic approach that best reflects the researcher's values and skills.

3.4 The philosophical positionality of the study

This research is positioned within a constructivist framework as the study seeks to explore the socially situated and dynamic behaviours of entrepreneurial leaders by examining their actions to understand the underlying social structures and realities. For a social constructivist, individuals engage within their environment together with other individuals through understanding thoughts and emotions (Barbalet, 2004; Harmeling, 2011). From the context of this study, entrepreneurial leadership tend to demonstrate and encompass a distinct set of behavioural traits that leaders can consciously adopt, but the underlying motives and outcomes remain unexplored from a Pakistani high-technology perspective.

To gain a comprehensive understanding of the intricate dynamics between leaders and managers in the selected SME environment, it is imperative to approach the subject from a relativistic standpoint. This necessitates an in-depth exploration of the perspectives and experiences of the individuals involved (Smith, 2007). The method through which such exploration can be achieved can be gained through using a phenomenology strategy, a philosophical approach that involves the interpretation and analysis of lived experiences.

In this research, the focus was on how individuals perceive their experience of specific phenomena related to entrepreneurial leadership, whereby their "…behaviour is determined by

the phenomena of experience rather than by external, objective and physically described reality" (Cohen, Manion & Morrison, 2011, p.18). Therefore, by adopting a constructivist perspective, the study enabled the identification and contextualisation of reality by understanding how entrepreneurial behaviour traits influence business activities. Through adopting a subjective approach within a constructivist framework, this provided the means to explore the contextual influences or the experiences of leaders and their followers when an entrepreneurial approach was adopted, and how this can influence or promote innovation. In the absence of significant existing literature on entrepreneurial leadership in Pakistani high-technology SMEs (Khalique et al., 2015), a more inductive approach was needed to discover or construct a theory based on the observations or interview data (Gill & Johnson, 2002).

While the existing body of literature on SMEs has not extensively used inductive methods (see section 2.7), the result has been a lack of known comprehensive knowledge related to entrepreneurial leadership and processes in SMEs, whereby makes the field relatively under-investigated (Rose, Jones & Furneaux, 2016). Therefore, rather than simply presenting themes in this study using a deductive approach, the focus was to use an inductive strategy to contribute to theoretical development based on the experiences and perspectives of the participants involved in the research (Starks & Trinidad, 2007). The choice of this methodology is discussed in the next section.

3.5 Methodology

Methodology sets out the methods and techniques to conduct the research, such as analysing the data, and the tools to collect the data (Kothari, 2004). It is important to explain the methods being used in the research process, and the researcher must state the reason and logic behind using those techniques. In addition, it is also important to mention that other research methods have not been adopted. The methods most used to collect the data are described as being qualitative, quantitative or mixed methods using both.

Data analysis and data reporting are two important fundamentals of the research process. Whether it is a qualitative or quantitative study, it is important to focus on the data's reliability and accuracy, and this should be independent of any bias. The researcher must choose a method that is appropriate for the study; not any one approach can be preferred. Furthermore, the method adopted should align with the nature of the study and be appropriate to address the research questions. Therefore, the researcher should give a clear rationale for selecting the

chosen method to carry out the research because the method's primary goal is to accurately accomplish the study's objective.

The proposed study is based on the interpretation of the process of entrepreneurial leadership style and its influence on advancing innovation in a working environment, with the interactions of the participants. Therefore, the study sets a constructivist epistemology (Creswell, 2009), as previously discussed. The focus of the study is on socially built realities by individuals. The use of constructivist epistemology allows data to be collected from a social environment where participants interact with each other regularly. The data and knowledge are associated with interpretation, meaning and illumination instead of generalisation, predictions, and control, and the researcher needs to understand how the participants develop the meaning of the social world (Bryman, 2001). The researcher who conducts the research as a constructivist is more likely to use qualitative methods to gather the data (Merriam, 2002). It shows the researcher is interested in investigating the matter and produces new results rather than researching the results of previous researchers; therefore, the qualitative methods are the most appropriate approach for constructivists. This approach is the best fit for the proposed research, as it is a study of a social phenomenon, and the researcher is investigating the influence of human behaviour on other individuals in a social setting.

3.5.1 Research Approach

The choice of research approach completes the description of the research, a deductive or inductive approach. In the deduction method, using a top-down approach, the researcher first proposes a theory and then designs the research procedures to test it (Trochim & Donnelly, 2008). In the deductive approach, variables are used to establish the relation between them by using structured methods, and the whole investigation is carried out to explain the phenomenon under observation. The inductive approach, also known as the bottom-up approach, focuses on varying patterns and observes them discretely to explain the phenomenon (Trochim & Donnelly, 2008). Generalisation is not a concern of the induction approach but instead focuses on the understanding of the problem in its own context to have a better view of the phenomenon under study; thus the investigation takes place in a more flexible manner (Easterby-Smith et al., 2002). Therefore, the inductive approach is more suitable for the proposed study, as it is an investigative study of working individuals in a social environment, and the focus is on the influence of their human behaviour.

For Creswell and Plano (2007), deductive researchers work from theory to hypothesis to data, in order to add to the theory or contradict it, while an inductive approach works from bottom-up by gathering the data using participants in order to generate the theory. The proposed research is to investigate, *Adaptation of entrepreneurial leadership in Pakistani high-technology SMEs to facilitate innovation: Insights from the ENTRELEAD model*. Thus, the research does not intend to use any theory but rather focuses on the changes in the behaviour of individuals affected by the strategies of their top management. In addition, the study focuses on understanding human behaviour by using participants from high-technology businesses to investigate the proposed research. Therefore, the study adopts the inductive approach to achieve the aim and purpose of the study.

3.5.2 Research Design

Creswell (1994) explained that quantitative research uses methods to collect numerical data, and mathematical models are used to analyse the data. The proposed research study will adopt a qualitative research method to carry out the research project. The reason for choosing qualitative over quantitative is that the latter is numbers-driven and plays an important role in the outcome of the research. In contrast, a qualitative approach explores the undiscovered areas of the subject and is more open research than quantitative research.

The aim of the study is to understand the behaviour to develop a logical conclusion (Bogdan & Biklen, 1998). As the proposed research aim is to *investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SME sector to facilitate innovative practice*, *through using the Renko et al. (2015) model,* the qualitative method is the most appropriate approach to accomplish the study's goals. This approach is most appropriate for the proposed research, as it is a study of a social phenomenon, and the researcher is investigating the influence of human behaviour on other individuals in a social setting. Therefore, a qualitative approach is the best method to address the problem and to achieve the aim of the study.

3.6 Data Collection Method

Data collection is associated with two essential activities that are critically intertwined in the research process: firstly, data collection, and secondly, data analysis (Tashakkori et al., 2020). This process ensures that the data collected is not only accurate but also ethically obtained. Data collection involves systematically gathering information through various methods such as surveys, experiments, observations, or interviews. Data analysis encompasses the techniques applied to interpret and derive meaningful insights from the collected data. This can involve

statistical analysis, qualitative coding, or other analytical frameworks that help reveal patterns, relationships, and trends within the data.

The following sections detail the processes and techniques adopted in this study for data collection purposes.

3.6.1 Interviews

Interviews generally provide a deep understanding of the problem and context of the phenomenon under study. Semi-structured interviews give the views of the people involved and part of the system. As the study is about the influence of people and their behaviour, interviews are important for the study. Interviews also help to build a good rapport with the participants, which is important because it helps to relax the participants who will then think openly in a free environment, so they can speak their minds, and this helps to reach the desired outcome from the questions (Smith et al., 2009). This approach is most suitable for the study, as it is a study of a social phenomenon and the researcher is trying to investigate the influence of human behaviour on other individuals in a social setting (Smith et al., 2009, p. 56). Another important aspect of interviews is that they help the researcher to follow up in real-time with the emergence of different and interesting themes during the conversation.

Semi-structured interviews (see Appendix 2) were used in the study to collect the data and gave the researcher the freedom to explore the subject under study with different themes coming up during the interviews and promptly follow up in a real-time conversation. In the process of reaching the aim and answering the research question, purposive sampling was chosen for the study. This sampling helped the researcher to get the answers from the more relevant people and those participants who were able to answer the research questions (Saunders et al., 2007).

3.6.2 Alternative methods to obtain data

There are a variety of methods to obtain the data. These methods help to look into the research problem deeply and thoroughly, and there are opportunities to use multiple methods to collect data, which gives more leverage to the researcher. However, there is a limitation to all the research methods to collect data, including the ones discussed (Porr et al., 2011).

It is important to use a multiple approach for data collection while studying human behaviour in a social reality. This is because these live experiences of human reality create a complicated phenomenon, which is not easy to understand by taking a single-dimensional approach (Mason, 2002). Creative thinking is a very important aspect for the researcher while conducting this

kind of research, as it is important for the researcher to come up with a creative mindset while gathering the data.

There are several methods apart from the one already discussed that can be used to obtain and gather data for the study, for instance, case studies, focus groups, document analysis, surveys, questionnaires, observational study and projective techniques. However, after studying the various techniques and their limitations regarding the research topic, this research study adopted semi-structured interviews to conduct the study. The demand and nature of the study show that interviews are the best technique to collect the data for the proposed research.

3.7 Description of the sample and participants

The primary data for the analysis is the most suitable approach, as it collects the data from different sources. The research sample for the proposed study consists of entrepreneurial leaders and staff working in high-technology businesses from Islamabad, the capital city of Pakistan. The businesses have been selected from the list of the Small and Medium Enterprises Development Authority of Pakistan (SMEDA). This will lead the study to a large number of employees from whom a sample can be selected. To the staff and executives, a cover letter was sent from the business's email address to ask for permission, the study's goal and objective were described in the cover letter and ensured the confidentiality of the participants and data collected. To briefly describe the goal and objective of the study, a cover letter was sent through email.

For Vagle (2018), interviews are the main method used in phenomenological research for gathering data since interviews allow researchers to transition from the realm of everyday discourse to the realm of phenomenology. Therefore, semi-structured interviews will follow a phenomenological approach, whereby the study collects data from all the participants, focusing on their perceptions and experiences of entrepreneurial leadership style. This process can involve re-interviewing the participants multiple times, so enabling the participants to fully describe the phenomenon (Polkinghhorne, 1989). The study includes entrepreneurial leaders and associated managerial staff from ten high-technology businesses based in Islamabad, Pakistan. With the study being based on ten businesses, each of these organisations becomes a mini case study, where the level of analysis is focused on the business and the perceptions of the individual participants (Bryman, 2001). The researcher approached twenty participants, drawing two participants from each business, one operational manager and one organisational leader. The final number of participants was determined based on saturation being reached,

when no new themes emerged (Bryman, 2001). The interviews were conducted in English, as the population are taught English during their formative schooling years. The initial identification of potential entrepreneurial leaders was drawn initially from the list of Small and Medium Enterprises Development Authority Pakistan (SMEDA), who were then contacted through a referral approach.

There are various methods to collect data in a general case study (Saunders et al., 2007). Therefore, for the proposed research, various techniques can be employed to collect the data.

3.8 Data collection strategy

The data was collected from CEOs and managers of ten high-technology businesses based in Islamabad, Pakistan. The businesses were chosen randomly from a list of small and medium enterprises development authority (SMEDA). Vagle (2018) argued that in a phenomenological study, interviews are the primary source of data collection, and researchers use this method to move the conversation into a phenomenological space from a normal setting. The research design is based on conducting one-to-one semi-structured interviews to gain in-depth information from leaders and managers to better understand the phenomenon of entrepreneurial leadership. The research interview questions are based on Renko et al.'s (2015) eight-item *ENTERELEAD* categories, but also from the leadership style literature, with a specific focus on entrepreneurship studies by Gupta et al. (2004).

A digital audio recorder and software program were used to record all interviews in order to capture audio for transcription and analysis. It is better to use a digital recorder that uploads audio recordings onto a computer since this makes backup copies, playback, and storage simple. Additionally, considering that some interviewees find recordings uncomfortable, the participants were informed and reminded by the researcher before the session that the interview was being recorded (Ravitch & Carl, 2016). Burkholder et al. (2016) indicated that during the interview, the participant shares the experience as it has been lived through, in regular life. It is the researcher's task to listen intently and attentively to the participant. To give the interviewee's entire focus and prevent any interruptions, the researcher also made some notes during the conversation. Vagle (2018) argued that, to improve the quality of the interview, the study's instructions should direct participants towards the phenomena as needed and pose queries that challenge their preconceptions of the phenomenon. The research data and findings are also enriched by conducting follow-up interviews and additional interviews with the same participant. To comprehend the phenomenon more thoroughly, the researcher intended to

interview one or two of the more experienced participants again. However, the researcher did not need to conduct any further interviews because the participants gave thorough replies. Each interview lasted between 35 and 60 minutes, giving the participants enough opportunity to talk about their experiences. Following the transcription of the interviews, the results were coded and stored using NVivo, creating a method for rationally storing the data.

3.9 Profile of the participants

The participants came from several high-technology-based Pakistani SMEs, who had different educational backgrounds and perspectives on entrepreneurial leadership. The participant profile criteria involved only interviewing CEOs/leaders and their managerial teams. Most of the participants in this study were under 35 years old, even though no age limit was initially set. While the gender profile in Pakistan indicates that 48% of the population is women, due to the nature of these SMEs being high technology-based, all the participants were men, as the sector seems to be male-dominated. Thirteen out of the twenty participants had received their higher education from Western-based universities, which could have influenced their attitude and entrepreneurial mindset, which was indicated in their responses to the interview questions. Four out of the ten businesses involved in the study were recent start-ups, while the remaining six businesses had been operating for between six to ten years. This profile information was then used to contextualise the findings.

All the participants received a briefing about the study prior to the interview and were made aware of different leadership styles. Therefore, the pre-interview briefing assisted the participants in becoming familiar with the focus of the interviews. Table 3.1 provides a profile of the participants.

Participants	Role	Tenure in the role	Education
PT1	CEO	12	PhD, Australia
PT2	Director	10	PhD, Australia
PT3	CEO	05	Masters, UK
PT4	CFO	03	Masters, UK

PT5	CEO	09	PhD, UK
PT6	CTO	05	Masters, Australia
PT7	Director	07	Masters, Pakistan
PT8	CEO	03	Masters, UK
PT9	CEO	04	Masters, USA
PT10	CEO	03	Bachelors, Pakistan
PT11	Software Developer	01	Bachelors, Pakistan
PT12	Product Manager	02	Bachelors, Pakistan
PT13	Finance Manager	03	Bachelors, UK
PT14	Project Manager	03	Masters, Pakistan
PT15	Analyst	02	Masters, Australia
PT16	Hardware Engineer	06	Masters, UK
PT17	Product Manager	09	Masters, UK
PT18	Product Manager	04	Masters, Australia
PT19	HR Manager	03	Masters, Pakistan
PT20	Project Manager	03	Masters, Pakistan

Table 3.1: Participants' profile

3.10 Conducting the interviews

Before sending an email to formally ask the interviewees to participate in the study, the participants were pre-screened based on a participant profile criterion, which included their role and experience. The participants were required to sign an informed consent form that was attached to the email and described the study's purpose. A copy of the informed consent form was delivered with a DocuSign to speed up the process of obtaining informed consent signatures. The consent form explained the study requirements, gave participants assurances about the privacy of their answers, and made it clear that participation was optional.

The study participants received no payment for their participation. To make sure that every research participant's interview addressed the same themes, the study used semi-structured interview questions, as presented in Appendix 2. This framework permitted the core areas to be covered, but also the flexibility to explore new and emerging themes (Rubin & Rubin, 2012).

3.11 Background to the study – the interpretation and coding scheme adopted

Twenty interviews involving CEOs/leaders were conducted together with their ten managers, who were working in high-technology SMEs in Pakistan. To understand the leadership style of the entrepreneurs and the experiences of the managers, this study drew directly on Renko et al.'s (2015) eight-item *ENTERELEAD* scale categories. The interviews were informed by the work of Renko et al. (2015), but also from the leadership style literature, with a specific focus on entrepreneurship studies by Gupta et al. (2004). In using the entrepreneurial leadership model as advocated by Gupta et al. (2004), the study revealed three emergent themes: promote empathy, enable collaboration, and innovative behaviour and attitude through encouragement.

The anonymity of the participants was important for the study, so the coding process focused on ensuring this. This anonymity included the business names not being revealed or the names of the participants. The coding strategy adopted followed a sequence in which the interviews were conducted. The leader from the first company was named L1, and the manager of the company was labelled M1; all subsequent interviewees, dependent on their role, were coded L2, M2, L3, M3 and so forth. The process of coding, as described by Bird (2005), is a dynamic and evolving practice that is continuously refined and defined throughout the entire analysis. To ensure a comprehensive understanding of the data, it was imperative for me to fully immerse myself in the dataset, getting acquainted with its breadth and depth. Subsequently, I proceeded by assigning preliminary or initial codes derived from the data, accompanied by my initial comments and a list of ideas.

It is noteworthy that the act of coding is an integral component of the analysis process, as elucidated by Miles and Huberman (1994). This process involves the organisation of data into cohesive groups or broad patterns, as emphasised by Tuckett (2005). Each of these broad patterns is then categorised as a "code", and the labelling process is guided by the specific objectives of the study (Seldana, 2015).

To engage in the process of manual coding, this was achieved by carefully noting down any observations while analysing the texts and using highlighters to mark potential patterns. From this, the data from the individual transcripts was organised into separate spreadsheets based on the assigned codes. Although initially, NVivo software was used to create codes, it was found that it inadvertently rearranged data in a way that did not align with the research requirements. To address this, a manual examination and comparison of the data enables a closer identification of similarities and differences, which can ultimately uncover new and emerging themes (Charmaz, 2006).

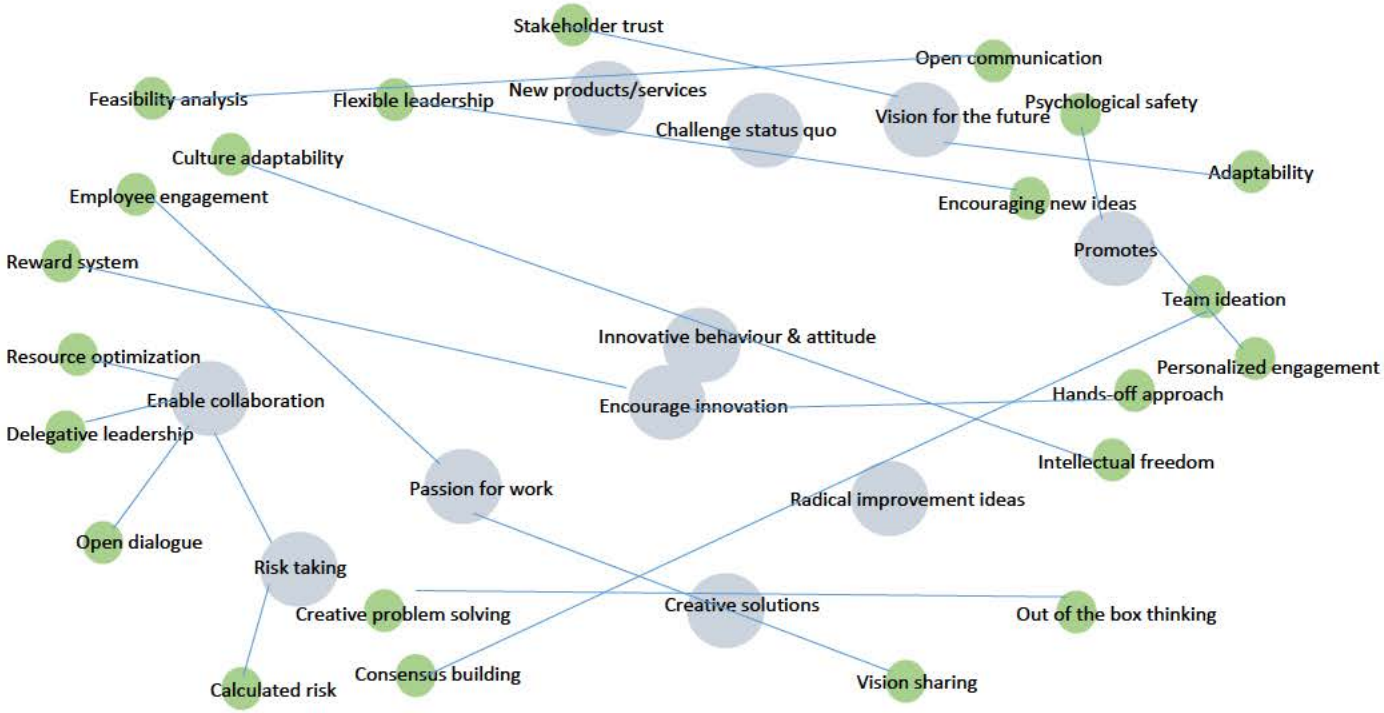


Figure 3.1: Thematic analysis codes landscape. Source: Author

3.12 Data analysis

Burkholder et al. (2016) contended that data analysis entails analysing the data that has been collected, detecting themes using a thematic analysis approach, and then synthesising the research findings. The study conducted face-to-face interviews, dependent on the participants' availability. Following the interviews, the transcripts of the interviews were transcribed and then imported into NVivo to code and then used to thematically organise the data (Jackson & Bazeley, 2019). To understand how different people perceive a phenomenon, the major method for analysing qualitative data is coding (Burkholder et al., 2016). The first stage of the analysis reviewed and thematically coded the leader's perspective, then in the second stage, analysed and coded the manager's perceptions, thus the data analysis process used a multi-phase strategy (Clark & Creswell, 2008). The synthesis of findings was achieved by analysing, reviewing, and interpreting the data to determine whether there is a connection between entrepreneurial leadership style and innovation.

The study adopted a methodological approach for the data analysis, as it helped to analyse the business structure and procedure in a more insightful manner. For this purpose, interviews were conducted with the leaders and staff of the business, and all the interviews were recorded to analyse the data. The study used a theoretical framework, which was formed during the literature review, as a starting point for the research. This framework links the analysed data with the existing body of knowledge and meets the aim of the research (Saunders et al., 2007).

It has been witnessed through the literature review that the concept of innovative work behaviour is multidimensional, but most of the research conducted in this area is one-dimensional (Kleysen & Street, 2001). This study used the multi-dimensional viewpoint since it is essential for the study to look at how entrepreneurial leadership affects different stages of innovative work behaviour. Therefore, it is important for the study to get as near as possible to investigate the influence of entrepreneurial leadership on the behaviour of the staff in a social working environment.

The most effective method to analyse and understand the data is to break it down into different academic concepts. The names of these academic concepts can be derived from the content of the constructs of interest (Glaser, 1992). The reference to "breaking down the data into different academic concepts" refers to the methodical process of first coding participants' responses and then grouping these codes into broader conceptual categories. Some of the codes were informed

by the Renko et al. (2015) ENTRELEAD model, while categories were developed inductively based on recurring patterns in the interviews. This two-stage process, moving from initial descriptive coding to the organisation of codes into conceptual themes, enabled a deeper interpretive analysis of entrepreneurial leadership behaviours in the context of innovation. This thematic development aligns with Burkholder et al.'s (2016) guidance, which stresses the importance of connecting coded data to conceptual constructs to enhance analytic depth and theoretical contribution. The approach also reinforces the study's trustworthiness by demonstrating a clear audit trail from raw data to final themes. To assist in this process, a hermeneutic phenomenology strategy was used to analyse the data (Burkholder et al., 2016), which can include adopting a detailed, holistic, or selective approach. A holistic approach assists in examining the entire data set, whereas the selective approach enables individual paragraphs to be isolated and understood separately. The detailed approach focuses on the analysis of the data word-by-word. To understand the experiences of the managers and leaders, a detailed approach enabled a deeper understanding of how entrepreneurial leadership could promote innovative behaviour amongst managers.

The coding and data analysis were conducted using NVivo to ensure that the participants' interview data were authentic (Rubin & Rubin, 2012). The researcher labelled each interview file to correspond with the alphabetic code assigned to each participant to protect his or her identity. The researcher formatted the twenty interview transcripts using auto-code and then ran a series of queries to identify initially recurring words, phrases, and patterns across the collective interview files.

After the interviews, the transcripts of the interviews were organised and stored using NVivo software. NVivo software helps to manage the data efficiently; interviews can result in a large amount of data, and there is a possibility that some part of the interview may not be necessary; therefore, it helps the researcher to manage and process the data analysis. For privacy and confidentiality reasons, all the data were saved in coded files with password protection, and only the researcher has access to it.

Author(s)	Contribution to Data Analysis	Relevance to This Study
Burkholder et al. (2016)	Provided comprehensive guidance for conducting thematic coding and qualitative data analysis in research.	Offered a structured approach for organising, coding, and developing themes systematically, which guided the coding and

		interpretation of interview data in this study.
Renko et al. (2015)	The ENTRELEAD model is used to assess entrepreneurial leadership behaviours.	Informed the interview design and provided a framework for initial coding, ensuring alignment with established constructs of entrepreneurial leadership.
Gupta et al. (2004)	Proposed core behavioural dimensions of entrepreneurial leadership.	Supplemented Renko et al.'s (2015) model with additional leadership attributes, enriching the coding categories and supporting more nuanced theme development.
Nowell et al. (2017)	Provided guidance on ensuring trustworthiness in thematic analysis.	Informed the measures applied to establish credibility, transferability, dependability, and confirmability of the coding process and thematic interpretation.
Creswell (2013)	Outlined rigorous procedures for qualitative research design and data analysis.	Provided overarching methodological guidance, ensuring that the thematic analysis adhered to recognised qualitative research standards and practice.

Table 3.2: Key Authors Informing the Data Analysis Approach

The thematic analysis applied in this study was informed by established methodological guidance to ensure analytical rigour and coherence. The structured framework proposed by Burkholder et al. (2016) was adopted to guide the systematic organisation, coding, and theme development process. This framework provided clear procedures for handling qualitative data in the research, ensuring that both theoretical constructs and emergent themes were captured reliably. The ENTRELEAD model by Renko et al. (2015) formed the basis for the initial coding scheme, allowing the researcher to map interview data directly to establish entrepreneurial leadership behaviours. In addition, the behavioural dimensions proposed by Gupta et al. (2004) provided supplementary constructs, supporting the refinement of coding categories and enriching the thematic interpretation.

To ensure trustworthiness, this study adhered to the recommendations outlined by Nowell et al. (2017), applying criteria for credibility, dependability, confirmability, and transferability

throughout the analysis. The broader qualitative research principles detailed by Creswell (2013) ensured that the analytical process remained consistent with best practice in qualitative research. Collectively, these key authors provided a robust and credible foundation for the thematic analysis undertaken, ensuring that the interpretation of the data was methodical, transparent, and reflective of participants' experiences.

3.13 Limitations of the Research Method

There are limitations in the study, which derive from the research method chosen to conduct the study. There are some issues of universal applicability of the research, and to some extent to the reliability of the results. The study mainly uses qualitative data, which leads to biased results. Nevertheless, the chosen method is the best possible method to get a deep understanding of the phenomenon under study, and this method helped to understand the opinions, feelings and perceptions, and this is the most important essence of the proposed study. Due to the research on a limited number of case companies, the results cannot be generalised entirely, as only ten companies were selected to conduct the research. According to Greenhalgh, Russell, and Swinglehurst (2005), the drawback of case study research is its inability to draw conclusions. This concern is often centred on issues of generalisability, particularly when findings are derived from a limited number of cases within a specific context. In this study, the research was designed around a qualitative case study strategy, involving semi-structured interviews with leaders and managers from ten high-technology SMEs in Pakistan. While this approach enabled a rich exploration of the lived experiences and relational dynamics of entrepreneurial leadership, the findings are not intended to be statistically generalised across all SME contexts.

The means to universal applicability was limited, as the study was conducted in a particular country and is also limited to a specific industry. To address this constraint, the study ensured transparency in the selection of cases, provided thick descriptions of the research setting, and grounded findings in existing literature where appropriate. Furthermore, the emergent themes, such as empathy, collaboration, and encouragement of innovative behaviour, extend the ENTRELEAD framework and offer potential transferability to similar organisational contexts. To address this, which will be addressed in the final chapter, future research may consider a larger and more varied sample across different regions and industries is recommended to test the applicability of these findings and to strengthen their generalisability.

3.14 Trustworthiness

Research findings should be reliable and trustworthy, and ethical methods should be used to obtain valid and reliable knowledge (Merriam, 1998). Therefore, trustworthiness is important to assess the quality of the research. Many authors have contributed to the guidelines for achieving quality qualitative research (Elliott, Fischer & Rennie, 1999). Concepts such as reliability, validity, and generalizability are more appropriate to quantitative research. However, it is important that qualitative research also ensures and achieves a set of quality standards and produces valid results.

Nevertheless, research needs to be rigorous and with quality criteria. There is not one unique quality standard for reliability and validity in qualitative research in place, and the debate on quality is ongoing (Denzin & Lincoln, 2018). Denzin and Lincoln (2018, p. 98) found that for constructivism research, "traditional positivist criteria of internal and external validity are replaced by such terms as trustworthiness and authenticity." Lincoln and Guba (1985) suggested credibility, transferability, dependability and confirmability as quality criteria for qualitative inquiry to achieve trustworthiness. Nowell et al. (2017) suggested measures to meet these trustworthiness criteria for the later introduced "thematic analysis" approach, which has been considered in this study.

The limitation of the qualitative method can be the reliability of the data collected. As the researcher does not work for the companies included in the study, it could be possible that the participants may not answer the questions as they would normally do, for example, they might answer differently to someone they know more closely, such as colleagues. Nevertheless, the researcher made sure the participants included in the research had all the freedom to answer or decline any question during the interviews. It was made clear that the interviews were conducted in a friendly and professional environment to achieve the best possible results. Further researchers tried to make the results more valid by having more studies within several industries and sectors, e.g., by studying more existing literature.

Ravitch and Carl (2016) defined credibility as the level of believability of the study's findings about the presented data. To ensure credibility in this study, the study implemented various strategies such as data saturation, as suggested by Iivari (2018) and obtaining data from multiple resources. Fusch and Ness (2015) proposed that reaching data saturation is crucial for establishing the credibility of research studies. Failure to achieve saturation can compromise the quality of the research. It is important to estimate an adequate sample size to ensure data

saturation and enhance the credibility of the study. In this research, the researcher conducted interviews with participants and confirmed that data saturation had been reached. This means that additional data did not produce new information in terms of codes or themes (Saunders et al., 2018) and that there was sufficient data to address the research question (Suri, 2011). Additionally, to ensure credibility, this study obtained data from multiple resources or in this case, ten high-technology companies, by interviewing more than one participant, a leader and manager from each company, concerning the same phenomenon.

Transferability involves the ability of a study to be applied to a wider context while retaining depth. This involves providing a comprehensive description of the study's context and assumptions to enable users to effectively apply the study's findings (Ravitch & Carl, 2016). To achieve transferability, this study utilised thick description as a method to clearly portray the research setting and the participants in the field notes, while also presenting evidence to support the research findings (Burkholder et al., 2016).

Burkholder et al. (2016) and Ravitch and Carl (2016) described dependability as the demonstration of consistency in data collection, analysis, and reporting methods, achieved through the collection of data that can address the research questions. For Bryman and Bell (2015), the confirmability concept is closely related to objectivity, as it emphasises the importance of minimising the influence of the researcher's values and beliefs on the research process and findings. Proposed methods to establish dependability and confirmability encompassed audit trails as suggested by Denzin and Lincoln (2018); this was achieved by saving all the records and transcripts of the interview data. The process of conducting interviews and obtaining data has been explained in detail, including the process of analysing the data. In the findings chapter relevant data from the transcripts have been quoted.

Fairness entails examining multiple perspectives from interviewees and engaging in equitable discussions (Shannon & Hambacher, 2014). This approach necessitates an acknowledgement of diverse realities (Guba & Lincoln, 1989). All interviewees, whether they were leaders or managers, were encouraged to express their opinions through semi-structured conversations featuring open-ended questions. Each contribution was valued to reduce bias and boost interviewee confidence, while significant insights from participants were emphasised to enrich the study.

Nevertheless, the researcher kept in mind all the constraints while conducting the research and, most importantly, kept focus on the importance of the research. The researcher followed the

criteria to produce quality and reliable research, such as carrying out ethical research, clarity and coherence, adopting the appropriate method for conducting the research, there is a level of trustworthiness in this research, the researcher approached the work with rigour, we can rely on its quality in terms of reliability.

3.15 Access

To achieve the purpose of the study, primary data from interviews were used for the analysis. To gather the data, access was required from the businesses. First, the connection was required to be made, and for that purpose, cover letters were sent through email to the participants explaining the purpose and aim of the research. Permission was obtained, and the contact was made via the business's email. The researcher had already developed a relationship with some companies because of previous work experience; however, the emails were sent to follow up and to obtain permission for interviews to conduct the research with business staff members.

3.16 Ethical Issues

The nature of the research needs to pay attention to some ethical issues. The research is based on primary data, and the data collection process is an ethical concern. To overcome the issue, the researcher kept the data anonymous, and no identification of the firm is required to answer the research question, as it is not the requirement of the study; the method used to analyse the data does not require such information. The names of the businesses and participants will not be disclosed; a complete disclosure form was sent to the businesses to ask for permission before conducting interviews and sending in questionnaires (Busher & James, 2009; Cohen, 2007). In addition, the researcher was aware of the ethical issues and ensured that the research met the ethical standards. For example, for confidentiality and privacy, the data was saved in coded files with password protection, and only the researcher had access to it. The ethical guidelines were followed in order to get approval from the university.

3.17 Summary

This chapter gives clarity on what research design and method that is most appropriate to conduct the research and to achieve the aim of the study. It also explains why the chosen method is most suitable. This chapter has discussed how axiology, ontology, epistemology, and technique are connected in a way that led to constructivism as a philosophical stance, and the reasons for using qualitative research methods, which are inductive and investigative in nature, to conduct the research. It offers a full explanation of how the study was conducted and how the results were analysed thereafter. Furthermore, the study used ten businesses as a

research strategy and semi-structured interviews were conducted for data collection purposes. After the interviews, the transcripts of the interviews were organised and stored using NVivo software, and in-depth analysis was carried out to achieve the results. Even though it is possible that different strategies and approaches would have been suitable for addressing the research question, the researcher believes that, given the topic's nascent nature, the approach chosen found the correct balance between representative sample size, analytical depth, and an acceptable epistemology.

To assess the quality of the research, trustworthiness is important. The concepts such as reliability, validity and generalizability are more appropriate to quantitative research. However, it is important that qualitative research also ensures and achieves a set of quality standards and produces valid results. Research was conducted discretely considering the ethics, and followed all the ethical guidelines to obtain approval from the University to conduct the research. In chapter four, a detailed analysis of the findings is provided.

Chapter Four
Findings

4.1 Introduction

This research aims to develop a critical insight into identifying how an entrepreneurial leadership style can promote innovative practices in Pakistan's high-technology SMEs. To achieve this, this phenomenological study primarily focused on the actual experiences of both the CEOs or leaders and then their managerial staff to understand their perceptions of the leadership style adopted in their place of work. The data collection strategy employed a qualitative approach using semi-structured interviews first to capture the perceptions of CEOs or leaders who ran a high-technology business in Pakistan, before researching the perceptions of their managerial staff. In this phenomenological study, a thematic analysis was used to interpret the interview data based on emerging and pre-defined themes as proposed by Renko et al. (2015). These themes included the eight items categorised in the ENTRELEAD model used to map the entrepreneurial leadership style:

1. Often comes up with radical improvement ideas for the products/services being sold.
2. Often comes up with ideas of completely new products/services that could be sold.
3. Takes risks.
4. Has creative solutions to problems.
5. Demonstrates passion for his/her work.
6. Has a vision of the future of business.
7. Challenges and pushes staff to act in a more innovative way.
8. Wants staff to challenge the current ways we do business.

The interview data generated three new emergent themes: promote empathy, enable collaboration, and innovative behaviour and attitude through encouragement. This chapter will provide a critical discussion of the interview outcomes and present a comparison of the existing literature to understand the implications of entrepreneurial leadership style on innovation. To achieve this, the study will commence by presenting the data associated with the existing categories as presented in the ENTRELEAD concept.

4.1.1 Rationale for the development of themes

The development of the themes in this study was guided by both theoretical grounding and inductive analysis of qualitative data. The ENTRELEAD model proposed by Renko et al. (2015) provided an established conceptual framework for analysing entrepreneurial leadership

behaviours. This model informed the construction of the interview questions and facilitated the organisation of the initial data analysis by offering eight predefined categories of entrepreneurial leadership that were explored across all participant interviews. These included traits such as creativity, risk-taking, vision, and the ability to inspire innovation, all of which are considered essential to entrepreneurial leadership in existing literature.

The rationale for using the ENTRELEAD model lies in its empirical robustness and its proven applicability in studying leadership behaviours that influence innovation. It offered a structured and focused lens through which data could be initially interpreted. However, the qualitative and constructivist nature of this study also necessitated openness to new findings. As the data analysis progressed, it became evident that while the ENTRELEAD model captured many important dimensions, several recurring themes emerged that extended beyond the scope of the original eight categories.

The identification of three emergent themes, which promote empathy, enable collaboration, and innovative behaviour and attitude through encouragement, was therefore inductive in nature, grounded in the participants' narratives and lived experiences. These emergent themes were not anticipated in the original theoretical framework but were recognised as salient and significant by their frequency and depth of discussion across interviews. These new themes reflect additional aspects of entrepreneurial leadership that are particularly relevant to the cultural and operational context of Pakistani high-technology SMEs.

The development of these emergent themes extends the ENTRELEAD model by incorporating relational, cultural, and motivational dimensions that are particularly relevant in the high-technology SME sector in Pakistan. These findings emphasise the need for a contextualised understanding of entrepreneurial leadership, one that accounts for the socio-cultural and organisational dynamics that influence innovative practice. In doing so, the study contributes new theoretical insights and refines the conceptual framework of entrepreneurial leadership to better reflect the realities of leadership in developing economies.

4.2 Themes associated with the ENTRELEAD model

This section will present the findings of the study by examining how the entrepreneurial leadership style of CEOs or leaders can influence innovative behaviour among managerial staff. The section will start with the predefined themes of entrepreneurial leadership style based on Renko et al.'s (2015) *ENTRELEAD* scale. The analysis of the perspectives of the participants, who were leaders and managers, will highlight the entrepreneurial behaviour of leadership that

enables employee innovation while serving as a role model. The study observed that leaders within the organisation purposefully enacted entrepreneurial leadership behaviours to foster employee innovation. These behaviours were found to be natural and intentional in their execution and were aimed at supporting and encouraging innovative thinking and action among employees. The demonstrated entrepreneurial leadership behaviours were seen as a key driver for promoting and encouraging innovation. Table 4.1 below presents a summary of entrepreneurial leadership behaviours.

Entrepreneurial leadership behaviours	Enacted behaviours
Often comes up with radical improvement ideas for the products/services being sold	Idea, process, product, procedure, or project initiation
Often comes up with ideas of completely new products/services that could be sold	New products, services, processes, or procedures creation and implementation
Takes risks	Putting trust and investment in own and employees' ideas. Risk mitigation
Has creative solutions to problems	Creates a culture in which employees are rewarded for trying new and different things. Creates processes that enable employees to think out of the box
Demonstrates passion for his/her work	Passionate and patient, enable employee motivation
Has a vision of the future of business	Persistent in ideas and vision implementation
Challenges and pushes staff to act in a more innovative way	Encourage employees to think and act in an innovative and creative way. Praise efforts for new ideas
Wants staff to challenge the current ways we do business	Challenge the status quo, and appreciate initiatives
Promotes empathy	Value employees, take an interest in employees' personal lives, friendly behaviour, and empower employees
Enables collaboration	Build trust, encourage honesty and open communication
Encourage innovative behaviour and attitude	Enable R&D, intellectual stimulation

Table 4.1: Entrepreneurial leadership behaviours. Source: Author

Table 4.1 presents a categorisation of entrepreneurial leadership behaviours that emerged during the data analysis process and are structured according to the ENTRELEAD model as proposed by Renko et al. (2015). This model served as the foundational analytical framework for the semi-structured interview protocols used in the study (Appendix 2), and the construct guided the thematic coding process applied during data interpretation (Section 3.12). Each category in the table corresponds directly to one of the ENTRELEAD model's behavioural attributes and

also emergent behavioural attributes from the interviews, allowing for a systematic analysis of how entrepreneurial leadership is perceived and enacted within high-technology SMEs in Pakistan.

The data presented in Table 4.1 are drawn from a thematic analysis of twenty interview transcripts, representing the lived experiences and perspectives of CEOs/executive leaders, and managers. For each behavioural category listed, themes were identified based on repeated patterns in participant responses, with exemplar quotations coded and cross-referenced to substantiate the themes. This approach ensured that the findings were not only grounded in the theoretical model but also richly illustrated through participants' responses. Table 4.1, therefore, acted as a bridge between the theoretical framework (Renko et al., 2015) and the findings of this study, setting the foundation for the detailed thematic explorations presented in sections 4.2 and 4.3. The inclusion of direct participant quotes in those sections helps to further exemplify the behaviours summarised here and underscores the interpretative depth of the analysis.

Following this summary above, the interview data from participant leaders and managers is systematically compared to uncover shared characteristics and any differences. This process involved carefully examining and interpreting the relationships within the data, which allowed for the construction of a coherent chain of evidence supporting the observations and new theoretical findings. To achieve this, the interviews were focused on the topic of entrepreneurial leadership style. Throughout the interviews, the leaders were given the opportunity to self-identify their own leadership behaviour and style. It is important to note that the participant managers presented a unique perspective on the leadership style of their leaders, as they were more observant of the performance of the leader and the output of the company. When coding and analysing the interview data about the phenomena of entrepreneurial leadership in Pakistani high-technology SMEs, careful consideration was given to the extent to which the observed behaviour by the managers was aligned with or represented established theories within the existing literature as reviewed in Chapter Two. The study also sought to determine whether the identified behavioural traits represented a new insight or contradicted the existing body of literature. The in-depth examination of how the study's findings aligned with the existing literature will be discussed extensively in Chapter Five.

This study did not set out to test the existence of a specific entrepreneurial leadership model during the interviews; however, Renko et al.'s (2015) *ENTRELEAD* scale was employed to map the entrepreneurial leadership style in high-technology SMEs in Pakistan. Certain leader

behavioural traits were then critically reviewed related to the aspects of the *ENTRELEAD* scale categories, but some of the findings did not fit into the construct.

4.2.1 Category One: Often comes up with radical improvement ideas for the products/services being sold.

Reflecting Table 4.1, the study employed Renko et al.'s (2015) ENTRELEAD scale to examine and evaluate the entrepreneurial behaviour of the leaders, which commenced with an in-depth analysis of the existing literature, which then informed the qualitative findings. From the interviews, the participants, who were leaders and managers, were asked using the ENTRELEAD scale to assess their entrepreneurial leadership skills and abilities. This approach allowed for a comprehensive understanding of the leaders' entrepreneurial competencies and their influence on the organisation's success.

The interviews commenced with a focus on 'coming up with radical improvement ideas for the products/services being sold.' The participant leaders saw the concept of improvements through the creation of ideas as a collective effort rather than based on the competency of an individual leader. L1 in illustrating this, noted that when a new product emerged, he tended to permit and encourage the managerial staff to contribute their ideas as the concept developed. This strategy included enabling the team to freely express their opinions openly, to generate new, original and creative ideas:

> If there is something which comes up as a new topic [problem], then I give freedom to my team to give their ideas, think about it, and propose some creative solutions. I encourage them to think out of the box and by doing so, most of the time we come to a conclusion [decision], we get some sort of a result or a solution to resolve the issue[problem] (Participant Leader L1).

L1 further stressed that, besides the need for effective ideation and opportunity recognition, the execution of the concept was also important. In contextualising this, L1 further discussed the challenges of being a leader, and that his style was dependent on the situation and often informed by specific requirements of the project or current task. For L1, the focus was often based on finding solutions through generating new ideas by looking at the problem from different perspectives. In this ideation process, for L1, the whole team needed to be involved and encouraged to come up with new ideas for a potential solution, but also through gaining a consensus:

> I mean, leadership actually is challenging. Every day brings a new challenge, and at times, you do not really have any idea what sort of challenge you get, because it is something new which you have never faced before, but I am enjoying my role as a leader. Every day I have to think from different perspectives, try to find some solution for different problems, resolve it, at times I have to take a call, as I mentioned, I have to involve the team, ask their opinion, evaluate the pros and cons and give my final verdict, either in consensus or add something new to the product. And even guide the team in the right direction (Participant Leader L1).

From the perspective of L1, it is possible to summarise that his choice of leadership style was not to lead in isolation but rather to seek a consensus and team approach.

The leaders discussed how their approach and ultimately their behaviour could help to encourage innovative thinking when improving the product or service offered by the company. The participant leader L10 emphasised the importance of encouraging employees to come up with new ideas to improve the company's products or services. L10 highlighted that he followed a bottom-up approach that actively involved employees while valuing their ideas in improving the product or service. L10 also added that he carefully listened to employees' ideas while considering them later during the decision-making process. This approach not only helped the company to improve its services but also ensured that employees felt valued and a sense of ownership:

> Of course, I do have an entrepreneurial leadership style. It is because we follow a hybrid of a top-down and modern bottom-up approach. The top-down approach tends to take the view of leadership, or you can say senior management only, while the bottom-up approach tends to take the view of the staff. Therefore, I believe in taking input from my team members and listening to their ideas. So, the views and concerns are kept, while making any decisions for the improvement of the services (Participant Leader L10).

While L2 recognised the importance of fostering innovation and creativity to improve the quality of the product, he did note the relevance of L10's perspective as to the idea that employees are an invaluable resource when enhancing business services. This viewpoint is in line with the research of Thornberry (2006) and Renko et al. (2015) who stated that innovative ventures are led by creative individuals who often act as role models for generating innovativeness through engaging in new product/ service creation or radically improving existing products or services

in the company, while also influencing their followers to act and behave in the same way. L2 further elaborated on the effectiveness of taking a hands-off approach, which allowed employees to become more autonomous in their roles by encouraging new ways of thinking. The perspective of L2 highlighted the significance of seeking collective knowledge and expertise from employees to drive organisational growth and success:

> You need to have a [leadership] style that gives your team freedom and ownership. So, if the managers are motivated and they feel that they are part of the team and they do not feel threatened or bogged down [unable to progress], then they will be naturally thinking about new things, and trying to implement new ideas, whatever they do would be creative, and they would be inclined towards innovation. They should have the feeling that their [managers] opinion or their contribution is being listened to (Participant Leader L2).

All the participant leaders expressed their willingness to promote and facilitate innovation in their respective businesses to enhance the quality of the service provided to their customers. The interviewees frequently associated innovative leadership characteristics with their responsibilities related to managing their staff, providing adequate resources, while supervising projects. This outcome supports the study of De Jong and Den Hartog (2010) who argued that a leadership approach that enhances an employee's voice can increase their intrinsic motivation and willingness to engage in innovative work behaviour and participate in generating and implementing radical ideas. Illustrating this, L3 contextualised the importance of leadership by stating that before introducing a new product to the company, the leaders tended to set an example by taking the lead. This is particularly important in small companies where there may be limited resources, where proactive leadership can remove any restrictions to enable new and creative ideas to be generated. This removal of restrictions, like resources, can only be achieved through effective communication:

> In small companies, you must make things work because of the limitations and provide resources to your team. I focus on giving attention to every small thing before implementing new ideas to the project. It is also important to communicate with your team, as it is vital to have the better understanding of your team to know them better, and what role fits best to each employee according to their personality. So, you can translate the requirements of the project to them in a better way (Participant Leader L3).

One of the participant leaders, L4, emphasised that bringing about positive changes in an organisation's products or services often requires an unconventional approach. L4's leadership approach emphasised the importance of delegating responsibility to employees with the aim of fostering a sense of ownership. By being responsible and taking ownership, employees became invested in the project and produced better quality outcomes:

> Generally, I prefer being a leader who discusses all the options we have with the team, gets input from each team member before we start a task so that everybody is committed, and takes ownership, and then I generally leave them to do the task and follow up when it is necessary. Otherwise, I will not bug them. If, there is a certain amount of ownership with everyone when they are performing a task. The results are better in terms of quality (Participant Leader L4).

The results of the interviews conducted with participant leaders L5 and L9 have shown that leadership is a complex amalgamation of several qualities, and its effectiveness is contingent on various influences, including the project's nature. These leaders suggested that managers and team members required different levels of guidance and autonomy at different stages of a project. The leaders concluded that successful entrepreneurial leadership needed to be adaptable to different situations and contexts. Despite the differences in their leadership approaches, all the leaders agreed that team autonomy and freedom are crucial to promoting creativity and innovation. The participants believed that an entrepreneur's leadership role was to enable and empower their team to generate novel ideas and improve products or services. Furthermore, the leaders emphasised the need to play an enabling role in enhancing motivation and empowerment strategies to foster an environment that encourages creativity and innovation. Participant leader L9 provided an example of how motivation and empowerment strategies are essential for effective leadership:

> My management style, of course, I think it is important that the team members are motivated enough, they feel heard, they feel that they are taken care of. They feel that their ideas are important to the project that is going on. Thus, I believe that leadership is ultimately a blend of many styles; it involves striking a balance between the several ways that businesses operate and improving the services provided to customers (Participant Leader L9).

The participant leader, L5, emphasised the importance of generating radical improvement ideas for a project or product. For L5, this was crucial to ensure that the new ideas for the product were

communicated properly with the team and that the team was fully on board with the proposed ideas. To achieve this, L5 suggested that regular communication with the team is essential. This regular communication can enable team members to contribute their unique perspectives and expertise, which can lead to fresh and innovative ideas being generated:

> I usually talk about any problem pertaining to the project or the product with my team. That aids in my understanding of the proper course that ought to be taken. I have benefited much from this technique in every way, including idea generation and the creation of fresh, original concepts for the product. When the team perceives that the management is keeping them informed and views them as a member of the team, trust is increased between the two groups, which boosts productivity (Participant Leader L5).

Based on the findings above, it is possible to conclude that the participant leaders in this study exhibited certain traits of an entrepreneurial leadership style, but they employed different approaches depending on the situation. Most of the participants believed that radical innovation is crucial for the future of their respective businesses. The study showed that although leaders agreed on the importance of nurturing collaborative ideas when working on products or services, by facing the practical challenges in establishing an ideation process due to limited resources and the constraints of their relationships with customers in terms of project requirements. The findings also provided evidence to indicate that businesses in this study tended to take an incremental approach to their innovative activities.

4.2.2 Category Two: Often comes up with ideas of completely new products/services that could be sold

The study then focused on the second theme of Renko et al. (2015). The interviews indicated that the SMEs in this study demonstrated a clear inclination towards innovation and forward-thinking. The leaders were particularly skilled in generating new ideas then had the ability to inspire their teams to think creatively. However, the study also highlighted that the leaders in these technology SMEs' ability to innovate was restricted due to the bounded nature of their operations. Nevertheless, the leaders and managers of these businesses provided comprehensive accounts of how they initiated and executed new ideas, products, or processes at various stages of the business.

From the perspective of the managers in this study, participant managers argued that the business needed to possess innovative characteristics to generate new ideas and products. For

Manager M10, he agreed that employees, including the management team, worked more efficiently and productively when leaders informed them of all the details. This approach created a sense of trust and transparency among the employees, which can foster a positive work environment and a culture of collaboration. By involving the managers in the new product development process, the company leaders not only increase their sense of ownership but also promote innovation and creativity. The open discussion of new ideas also enables the managers to provide feedback and suggestions, which can help in refining the product, process, or procedure:

> Employees feel more trusted and are better equipped to make wise judgments when leaders are open and honest with them about the new products and services introduced in the business. A company is more productive in several ways when leadership is more transparent with its employees before introducing a new product idea in the business. If employee engagement is higher, the company culture is stronger, and transparency fosters a sense of comfort among employees, enabling them to freely communicate. A transparent workplace environment encourages innovation as well as giving employees a sense of value (Participant Manager M10).

Based on the perspective of Participant Manager M10, it can be inferred that to foster a culture of internal innovation within an organisation, it is vital to cultivate creativity and an inventive mindset among managers. The leaders encourage creative goal setting and are open to modifying processes and procedures are instrumental in motivating managers to act.

To illustrate this, manager M3 shared how the CEO kept the entire management team informed and involved when introducing a new product idea, which led to a better understanding of business requirements and encouraged innovative thinking. M3 emphasised the importance of entrepreneurial leadership that was not only focused on generating new ideas, but highlighted the significance of team communication and understanding client needs to prevent financial losses:

> CEO often comes up with new product ideas in the company. He keeps the whole management in the loop by sharing information freely about new products, it helps everyone to understand how his or her role in the business contributes to the larger goal. If trust is maintained in the business, teamwork, creativity, innovation and loyalty are promoted, which are key characteristics of entrepreneurial leadership. Being open in sharing unbiased information helps in solving the problems, it is a

> key attribute, for example, if you are facing a problem with a client and you are on the verge of incurring losses. The best way to deal with the situation is to be open with your management; maybe someone will come up with a solution in a creative and innovative manner and will be able to help the company in case of financial loss (Participant Manager M3).

Participant manager M4 believed that they had the freedom to express their ideas without any restrictions, a highly desirable attribute in their respective businesses. The leadership consistently generates new product ideas and encourages managers to be innovative, creative, and to think outside the box. The leadership also provide support to managers to achieve organisational goals by introducing new ideas for technical enhancements of the products, which improve their service to customers. M4 stated:

> I think that leverage is there, I think at the end things come down to how the team is working and how the end goal is for the company. And currently the environment we are working in, there is a lot of flexibility in terms of coming up with new innovative ideas, to improve processes within the company to bring in new ideas for technical enhancements of the products. The leadership not only initiate the ideation process but also gives employees a lot of support to work creatively for product development (Participant Manager M4).

The findings of the study indicated that the leader tended to propose new ideas for a project, with a tendency to focus on discussing concepts and themes. Leadership ensures the success of the project by providing all the necessary information required for its implementation. Participant Manager M9 stated that when it comes to ideas for a new project, it is important to consider the nature of the project and the workload of the leaders. In small companies and startups, particularly in the technology industry, there may be technical complexities that make it difficult for leaders to share all the necessary information about new ideas. However, there was a clear understanding of the company's strategy, and the amount of information shared depends on the organisation's structure. By keeping these attributes in mind and working together to find solutions, to ensure that projects are managed effectively and efficiently:

> It all depends on the nature of the project; sometimes leaders do not have enough time to share all the information about new ideas about the project, because of the workload in small companies and start-ups, especially in the technology industry because more technicalities are involved. However, we always know the company's

> strategy, and it also depends on the organisation's structure (Participant Manager M9).

From a leader's perspective, Participant Leader L5 emphasised the importance of working in a consultative manner when proposing new ideas for the project. L5 stated:

> I work in a consultative mode with my team, basically, in a consultative mode, I tend to discuss every issue, which is related to the project with them [the team]. And that generates a lot of ideas. And that helps me to get to know the right path, which should be followed in the project. So this particular style [leadership style] has been beneficial for me in all respects (Participant Leader L5).

L6 highlighted the crucial role of managers' engagement in the ideation process. L6 emphasised on need to create an environment where managers can share their thoughts and ideas freely. L6 stressed the importance of mutual understanding between the leadership and managers before implementing new ideas for the project:

> Yes, it is important to discuss new ideas with your team. I make sure that I discuss all the different ideas with my team members so that we have a mutual consensus and then take action. This really helped me because when everybody is on board, and has a sense of ownership, it reflects in the outcome of the project (Participant Leader L6).

4.2.3 Category three: Takes risks

In the previous section, the study investigated various aspects of entrepreneurial leadership in innovation, highlighting the need for leaders to have an open mind to novel ideas and the ability to align internal dynamics to bring creative concepts to fruition. To achieve this, matching leaders' willingness to take risks with their creativity and innovation is crucial. By developing practical ideas, organisations can enhance their innovation output, foster a risk-taking and entrepreneurial environment, and promote staff engagement. The study emphasised the significance of effective idea management techniques, especially for addressing problems and identifying and seizing opportunities. As risk-taking is considered a key component of entrepreneurial leadership, this section will present the findings related to the attitude towards risk among the leaders who took part in the study.

Understanding the behaviour of risk-taking is of utmost importance because such incidents are often viewed in the context of exploring and exploiting new opportunities. When directly asked

about participant leaders' inclination towards taking risks, all the leaders expressed their apprehension towards the potential consequences of such actions and the significance of implementing thoughtful mitigation strategies. Participant Leader L4 mentioned that he provided his team the freedom to function independently with flexible time limits to work on a project; his primary focus is not on taking risks but rather on improving the overall quality of the product and avoiding potential risks:

> There is a certain amount of ownership with each individual when they are performing a task. Yes, there can be issues with time management because, let them think on their own, and act on their own. Some people take more time to perform a certain task because they do not want to make mistakes. In general, it is beneficial when all individuals in a team take ownership of their tasks and responsibilities, as this approach leads to higher-quality outcomes and reduces the likelihood of risks and errors (Participant Leader L4).

L5 discussed how he took risks by involving his team in the decision-making processes of a project, which enabled him and the business to generate new innovative ideas:

> I discuss every project-related issue with my team, which helps in evaluating potential risks and opportunities. By generating a range of ideas and collaboratively exploring these concepts, I can better assess the risks associated with different options and then make more informed decisions. This process allows me to take calculated risks with confidence, as it incorporates diverse perspectives and insights from the team (Participant Leader L5).

L5 further discussed the topic of team engagement and how it relates to taking risks. In explaining this, L5 also emphasised the importance of being cautious when taking risks, as resources tend to be scarce if the project is in any way adversely affected. This meant that the company needed to focus on the consequences of the risk:

> Exploring new and innovative ideas is essential for making progress in the industry. By working with my team, I can employ our combined creativity to investigate these ideas and potentially take risks while staying within our resource limits (Participant Leader L5).

L7 provided a detailed analysis of the key characteristics that defined his risk-taking strategy. It was evident from L7's response that he possessed a deep understanding of the nuances of leadership and could navigate complex situations:

> I lead my company by setting an example, whether it is through taking risks, making sure resources are managed efficiently, or empowering my team to innovate and grow. Furthermore, I serve as an inspiring role model for my employees, which can encourage them to also embrace innovative approaches and be more open to taking risks themselves (Participant Leader L7).

From a management perspective, Participant Manager M4 highlighted that leadership currently lacks a proactive risk-taking approach, often overanalysing situations, especially with existing products. The emphasis on careful analysis before acting reflects a cautious attitude towards risk-taking of Manager 4's leader:

> As I mentioned, our leadership is somewhat reactive when it comes to risk-taking. We tend to overanalyse situations before making decisions, particularly concerning existing products. This cautious approach often leads us to choose safer, more cost-effective options. However, this tendency to avoid risks might also result in missing opportunities that involve risks, which could otherwise help the company to grow (Participant Manager M4).

M6's response regarding risk-taking revealed that the company's leadership is adopting a more conservative strategy. By focusing on existing products and services and emphasising consulting services over new product development:

> The company's leadership is currently avoiding risks and focusing on improving and implementing solutions for existing products or services. The primary focus is on offering consulting services to clients, rather than working on new product development (Participant Manager M6).

Reflecting on the perspective presented by the participant leaders and managers, it has been established that risk-taking is a crucial component of implementing opportunity-driven strategies, and it is the leader's responsibility to effectively establish and manage it. The participant leaders and managers have confirmed that improving the general understanding of the business's commercial aspects amongst the staff could provide a solid foundation for making informed decisions regarding risks. Additionally, it was identified that educating people about

the potential risks and rewards of measured risk-taking is also crucial to promoting a culture of calculated risk-taking.

4.2.4 Category four: Has creative solutions to problems

One of the most critical qualities needed in a leader is creativity. This attribute plays a vital role in setting a company apart from its competitors, particularly in the case of high-technology SMEs. The leaders in these Pakistani high-technology SMEs and their employees needed to stay informed about new opportunities, technological advancements, and their competitors' strengths and weaknesses. The leaders in this study also needed to adapt their strategies to keep up with the changing market conditions and the growth of their business.

When asked about creative problem-solving, Participant Leader L10 emphasised the importance of motivating and guiding his managers. For L10, a leader's ability to inspire others to perform efficiently by enhancing creativity and encouraging innovation was critical for solving problems creatively. This approach involved enabling and facilitating managers to think creatively and to come up with innovative solutions to problems that they encountered:

> A good leader inspires their followers to perform efficiently. A leader also encourages their followers to be creative and to become innovative. Therefore, I believe in taking input from my team members. So, the views [ideas] and concerns are kept, in making any decision. By adopting this strategy, you remain engaged in the process of providing creative solutions. And it definitely brings confidence and motivation for creativity in employees (Participant Leader L10).

L1 response supported the statement of L10. L1 argued that inspiring and empowering managers was essential for enhancing creativity, enabling them to work independently and generate innovative ideas to find creative solutions for problems:

> …even in my team, for example, if there is something which comes up as a new topic [problem], then I give freedom to my team to give their ideas, think about it, and propose some creative solutions. I encourage them to think out of the box and by doing so, uh, most of the time we come to a conclusion [decision], we get some sort of a result or a solution to resolve the issue[problem] (Participant Leader L1).

Collaborative brainstorming sessions can be the key strategy to unlocking a team's creativity. As L5 pointed out, open discussions can lead to exciting new ideas through collaboration that can help solve problems creatively:

> I work in a consultative mode with my team, basically, in a consultative mode, I tend to discuss every issue, which is related to the project with them [the team]. And that generates a lot of ideas. And that helps me to get to know the right path, which should be followed in the project. So this particular style [leadership style] has been beneficial for me in all respects. It has facilitated the generation of innovative and creative solutions and has also enabled smooth collaboration with the team, fostering a sense of trust and confidence amongst the team members (Participant Leader L5).

When the participant managers were asked about the leadership and their creative solutions to problems, the participant managers provided examples of their leadership approach to this. M10 praised the leadership's efforts to encourage managers to engage in entrepreneurial activities within the company. M10 also highlighted that the leadership not only come up with creative solutions but also motivates staff by rewarding managers who were creative in problem-solving:

> I strongly believe that effective leadership within my company plays a vital role in motivating and fostering entrepreneurial activities. Leadership needs to be supportive and foster an environment that encourages creative thinking amongst employees, which leads to the generation of creative solutions. The leadership have incentivised this process through encouraging and then rewarding employees who develop creative ideas or solutions with a monthly bonus (Participant Manager M10).

M2 mentioned that the leadership in his company was innovative and creative in solving problems, through proactively encouraging creative thinking for problem-solving:

> The CEO is very creative when it comes to solving problems. I can see this first-hand, as I directly report to him as I oversee the day-to-day product development of the web and mobile applications we are currently working on. Being a tech company, the leadership highly values the creative ideas and opinions of the staff. We all participate in brainstorming sessions and are then encouraged to share our ideas (Participant Manager M2).

M7 highlighted that the receptive nature of creative leadership played a key role in creating an environment of innovation. M7 emphasised the importance of seeking feedback from all team members while working on a new product, to find creative solutions for its improvement before making a final decision:

> The leader is creative and innovative, he encourages the sharing of creative ideas to discuss the best possible solutions for problems. If I talk about our internal products, of course, there is an opportunity for everyone to share what they think about the product and what can be improved. So, when we work on a product, any new feature stays in the ideation phase until all team members agree upon it and share their feedback (Participant Manager M7).

4.2.5 Category five: Demonstrates passion for his/her work

The study analysed the responses from the participant leaders and identified key events which highlighted their motivation and passion for their entrepreneurial activities. Participant Leader L7 expressed that his passion for his work revolves around fostering a positive and supportive environment where team members feel valued and understood. By recognising their challenges, such as family issues, and providing assistance, L7 demonstrated that he genuinely cares for them as individuals rather than just as employees:

> I genuinely care for the people I lead, by being aware of their challenges, like family issues, and offering support, I show that I value them as individuals, not just employees. My passion lies in creating a positive, supportive environment where everyone feels valued, understood, and happy. When my team members are happy and supported, they are more motivated and engaged (Participant Leader L7).

Participant Leader L10 expressed his passion by sharing his vision, demonstrating commitment through action, and actively involving the team in the innovation process:

> I share my vision with the team in a way that highlights not just the end goal, but the journey we are on together. I talk about why the work matters, how it impacts us individually and collectively, and why I am personally driven to achieve it. My passion comes across in how I speak, the energy I bring to each interaction, and the way I involve everyone in problem-solving and innovation (Participant Leader L10).

L5 believed that leadership is about empowering individuals to grow as leaders themselves. Igniting entrepreneurial passion in followers is considered an essential element of entrepreneurial leadership, as indicated by Amabile (1997) and Cardon (2008), who contended that being passionate can foster creativity (Cardon & Kirk, 2015). Describing this L5 stated:

> Leadership is about empowering others and guiding them effectively. It is not just about managing tasks but about inspiring and developing individuals so they can grow into leaders themselves. My passion drives me to provide the direction, motivation, and support that my team needs. When I am passionate about what I do, it reflects in how I support my team, helping them navigate challenges and make the best decisions. This, in turn, fosters their [employees] growth and elevates the entire organisation (Participant Leader L5).

L9 emphasised that successful entrepreneurial leaders need a combination of passion, perseverance, and patience. Passion drives the pursuit of opportunities, perseverance helps overcome obstacles, and patience ensures focus on the long-term goals of the company:

> I think leadership passion is deeply connected with patience and persistence. When leading a company, I know that things rarely go according to plan, which is where patience becomes vital. My passion drives me to stay committed even when faced with setbacks, and persistence helps me keep pushing forward to achieve the company's goals (Participant Leader L9).

From a managerial perspective, in discussing creative and innovative leadership qualities, Participant Manager M10 often mentioned the theme of passion. M10 provided a critical insight into the leadership of their company and how passionate and goal-oriented they were. Leadership is currently working on a leadership model that will help them achieve their goals. This observation supports Cardon et al.'s (2009) proposition that passionate entrepreneurs tend to be more creative and more deeply invested in venture-related activities, which can lead to better outcomes. M10 thought that this was certainly the case for their company:

> The leadership of our company is very much goal-oriented, passionate, and motivated. CEO is working on a leadership model that works best for the company and employees. It encourages team members to come up with creative ideas that are beneficial in the present situation as well as will secure the future of the company (Participant Manager M10).

4.2.6 Category six: Has a vision of the future of business

The participant leaders discussed the vital role they play as leaders of an entrepreneurial company in creating a vision that inspires and motivates stakeholders. Cogliser and Brigham (2004) posited vision as the ability of the leader to clearly define the mission with transparency, proficiently communicate it, and effectively persuade followers to participate in its achievement. These leaders discussed the importance of effective communication and emphasised that communicating the vision clearly and consistently was key to its success. L6 shared his insights on how to build trust with stakeholders and foster creativity and self-organisation within the team. L6 highlighted the importance of leading by example and setting a precedent for others to follow. L6 recognised that these actions were crucial in making the company successful in the industry, particularly in creating a compelling vision and leading with transparency and integrity:

> Yes, as I mentioned earlier, my leadership style is to lead by example, so I have the trust of my team members and different stakeholders. And I go with the example, I take ownership, I mean, going forward, I have the vision for the team and the company. They trust me, and according to that vision, we deliver the goals. And in my leadership style, I focus on transparency. I make sure that I discuss all the different perspectives with my team members so that we have a mutual consensus and then take action. And this really helped me because when everybody is on board and has a sense of ownership, it reflects in the outcome of the project (Participant Leader L6).

Participant leader L8 emphasised the importance of effective communication, sharing of ideas, constant learning, and being adaptable to change in achieving the vision for the future:

> If you watch my company's growth, I believe that both my team and I are operating at a very high level. I am learning new things and developing every day. In addition, I am very adept at learning quickly, and I truly appreciate and take into consideration the ideas and feedback of others, especially when interacting with different clients. This is due to my receptive and adopting personality. I've been improving myself by closely observing and learning from my surroundings. This has been helping me become better at understanding and adapting to the business environment (Participant Leader L8).

L2 discussed the significance of incorporating ideas from all team members for the growth and development of the business. L2 emphasised that building a clear vision for the business requires trust in the staff and their ideas:

> I am from a technology start-up. You need to be receptive to new ideas. You need to recognise that there may be people on the team who have better opinions or maybe better ideas. And especially when you are growing older, you recognise that the younger players have ideas that are more out of the box. Therefore, whatever your training or experience has been, you tend to think towards a particular style. You know, you have got your preconceptions about certain things. In younger people, especially, you recognise that they have wilder ideas, which are different to what you think or what the other team thinks. Therefore, you need to be receptive to that. You need to be open to those for a better future of the company (Participant Leader L2).

Focusing on the interviews with the managers, Participant Manager M1 highlighted specific occasions where it was observed that the leadership of the company took an active involvement in entrepreneurial activities for the future of the business. These activities were aimed at promoting business growth and expanding the company's presence in the technology industry. M1 expressed that encouraging such activities is essential to maintain a competitive edge in the market:

> I believe that leaders are mostly involved in entrepreneurial activities because we are in the telecom industry, and it requires an innovative mindset for the growth of the company. We have our goals and objectives, which we achieve through innovation. To foster creativity and innovation within an organisation, leadership needs to offer clear and comprehensive direction regarding the goals and objectives necessary for excelling in our industry. As a result, leaders are often deeply engaged in activities that support and drive creativity and innovation within the company (Participant Manager M1).

Participant Manager M6 emphasised the importance of being adaptable to the rapidly changing business dynamics. M6 stressed that learning new technology is crucial for sustaining the vision of the business. The leadership of the company has been effectively communicating with the managers by arranging weekly meetings to bring the entire organisation on board. M6 stated that this approach has been effective in keeping everyone informed and involved:

> The business dynamics are constantly evolving. Updates and changes occur regularly, affecting all aspects of business operations. This includes updates to libraries, programming languages, and the technology that businesses rely on. It's crucial to stay adaptable and be prepared to embrace these changes to remain competitive and effective in the modern business environment. So yes, we are always adapting to this changing landscape. In our organisation, we conduct regular meetings involving all of our staff members. Each week, we focus on a new topic, which could be a presentation from the web team or an update from the mobile game apps team. This allows our engineers and different department teams to stay informed about upcoming projects and innovations and also provides them with the opportunity to ask questions and engage in discussions. Additionally, we have dedicated sessions where we collectively research industry news and upcoming events in the technology landscape (Participant Manager M6).

M9 stated that leadership places a significant emphasis on comprehending customer perceptions and feedback. Leadership strives to make changes within the company that align with the customers' demands to ensure a prosperous future for the business:

> I think that the leadership steps in because they have to make sure they understand the public perception, what is in demand, where the future is and make sure that they create opportunities for the task force to move in that direction. Sometimes it's not easy, but I think, in our case, the leadership is aware of what's the dynamics of the situation on the ground now and where things are headed in the future (Participant Manager M9)

4.2.7 Category seven: Challenges and pushes staff to act in a more innovative way

One of the essential qualities that an entrepreneurial leader should possess is the ability to motivate staff. Entrepreneurial leaders enable and support creative idea generation by acting as role models for innovative behaviour. This can include providing the environment to create new ideas through engaging in entrepreneurial practices and encouraging staff to adopt an innovative approach (Renko et al., 2015; Newman et al., 2018). Reflecting on this, Participant Leader L2 emphasised the-significance of leadership style in driving a business to be more innovative. L2 had a unique perspective on leadership styles and did not rely on the traditional, predetermined approaches. Instead, L2 believed in adopting a "hands-off style" of management, avoiding

micromanagement, and allowing teams to work independently. L2 also stressed the importance of inspiring managers, rather than merely pushing them to complete tasks. L2 argued that when staff or teams are motivated and share the leader's values, they automatically perform well. This approach can lead to a more productive and effective team:

> I would say I have a more hands-off style. I am not into micromanaging; I believe you must inspire your team into doing well rather than micromanaging them or pushing them to do things. If the employees or the team is motivated, and they are convinced by your values or what you want to achieve, then they will automatically perform well (Participant Leader L2).

Entrepreneurial leaders can enable their team members to explore fresh thoughts and create ideas by identifying and inspiring them. The leader can create an environment to change staff behaviour, mindsets, and attitudes, and motivate them to pursue creating new innovative ideas that can be embedded into practice (Bagheri, 2017). As to Participant L4's approach, this was found to be highly contingent upon the specific nature of the problem. Unlike adopting a micromanaged or authoritarian style, L4 emphasised adaptability and flexibility, which was aligned to the specific project and problem. This approach allowed for a more friendly leadership style that could be customised to encourage managers to perform their jobs in innovative ways:

> I do not have a particular leadership style. I work more as a delegator rather than somebody who micro-manages. But it again depends on the situation, the scenario, and the team members who I am working with. So, keeping in view the team, there are instances where I have to be authoritarian and there are instances where I have to be more transactional. But generally, I prefer being a leader who discusses all the options we have with the team (Participant Leader L4).

L1 emphasised the significance of promoting innovative thinking in company culture. L1 proposed one contextual strategy that encouraged staff to think innovatively was to reward their performances. This approach tended to help motivate staff to generate new innovative ideas. L1 stated:

> Innovative thinking is encouraged in our company. There is an annual individual award and an annual team award as well. So, each year different departments nominate their Individuals along with [in addition to the individual's name], and

> they also put forward: What innovative idea they proposed [based on which individual name has been nominated] (Participant Leader L1).

From the management perspective, Participant Manager M10 endorsed the leadership of his company for his proactive approach in encouraging their employees to think innovatively and participate in entrepreneurial activities. By organising brainstorming sessions and providing incentives in the form of a bonus system, the company had created a healthy, competitive environment where staff are motivated to generate innovative ideas.

> The leadership in my company plays an integral part in encouraging entrepreneurial activities by motivating the team members to brainstorm and come up with out-of-the-box solutions. Those employees who develop creative ideas or solutions are rewarded with monthly bonuses (Participant Manager M10).

Participant Manager M4 mentioned that his company's leadership encouraged innovative thinking and supported managers in implementing effective innovative ideas by providing the necessary resources, which, for this participant, was providing specialised hardware:

> There is a lot of flexibility in developing new innovative ways to improve processes within the company and to bring in new ideas for technical enhancements of the products. We are currently working on certain projects that require hardware to be procured. This idea of procuring this hardware was my idea, and the leadership team were happy to accept and invest in this concept (Participant Manager M4).

M7 highlighted the advantages of creating in-house products, as it allows staff to explore new ideas and work innovatively:

> We are a software consultancy company; our main objective is to provide technical consultancy to any client who comes to us. So, we are always sharing our ideas and our take on the solutions. If I talk about our internal [in-house] products, there is an opportunity for everyone to share what they think about the product and what can be improved (Participant Manager M7).

4.2.8 Category eight: Wants staff to challenge the current ways we do business

All the participants were asked about their experience of working in their respective organisations. The interviewees could provide examples of being able to challenge the current ways of working due to the leadership style adopted. Participant Manager M3 spoke about the freedom he was given to come up with new ideas. To illustrate this, Participant Manager M3

mentioned how leadership encouraged staff to think differently and find new innovative solutions while working on new products, as indicated below:

> The leadership is receptive to new ideas, and I have been given the freedom to come up with new ideas. A lot of the changes in the current product are from my ideas, for example, our product [facial recognition] is all about identity verification and digital customer onboarding, in this [application], we verify our customers online. So, our task was to reduce the manual work and automate the process to provide the best security solution (Participant Manager M3).

Participant Manager M4 mentioned that the leadership was working towards fostering an entrepreneurial mindset within the organisation's culture, as he believed it was currently lacking. In contextualising this, Participant Manager M4 discussed the measures being taken by the leaders to introduce new reward-based programs to encourage employees to think creatively and change their existing ways of conducting business:

> There has been a lot of talk going on recently to create this entrepreneurial mindset and somehow establish that into the company culture. This is something that the company is trying to do right now as the entrepreneurial mindset has been lacking. So, there is a huge effort going on, they [leadership] are trying to reward people who are coming up with new ideas (Participant Manager M4).

Participant Manager M6 drew on an example from his personal experience, when he was encouraged to be more creative in his thinking and automated the ETL processes. M6 stated:

> This is a scenario when I was new to this project; there were some ETL jobs, which were being executed monthly, but they were all being managed manually. So, I made sure that I automated all those jobs [ETL processes] (Participant Manager M6).

The study found that most leaders were perceived by the managers to be adaptable and flexible in their leadership style, as they used different entrepreneurial behaviours depending on the situation or project. From the leadership perspective, Participant Leader L8 valued his staff's autonomy and skills. He assigned tasks that aligned with their qualifications and expertise, and he did not require them to follow any restrictive requirements. Instead, L8 encouraged his employees to work efficiently by giving them the freedom to work independently, think creatively, and solve problems in a non-traditional way:

> I have a management technique that prioritises flexibility and adaptability. I empower my employees to challenge traditional ways and management techniques, and encourage them to try new, fresh innovative ideas to perform the job. I try to assign tasks that align with their respective areas of expertise and encourage them to execute these tasks in a manner that best suits their skills. So, I think my style of administration is very positive and productive for my company (Participant Leader L8).

Participant Leader L9 emphasised that freedom and communication are the main characteristics that encourage employees to work innovatively and think about new ways of working on projects. L9 further indicated it was important that the employees express themselves openly:

> Since we are a technology company, I rely heavily on the knowledge, expertise, and curiosity of my employees. Therefore, it is important for me to establish open communication to enable everyone to feel they can freely to express themselves (Participant Leader L9).

Participant Leader L10 emphasised the importance of teamwork and collaboration. L10 explained that he encouraged his staff to share their opinions and ideas freely, as he believed that it was possible to miss out on critical aspects of a project while working in isolation. In his experience, the collective intelligence of the team is greater than any individual's perspective, and everyone benefits from hearing different viewpoints:

> I encourage my employees to come forward and discuss new ideas because it is possible that as a single individual, I may not consider all aspects necessary for success. When an employee presents an innovative idea, we thoroughly discuss all its possible aspects before implementing it (Participant Leader L10).

4.3 New emergent themes

This section will discuss three new themes which have emerged from the interview data, and they are presented as categories, namely promote empathy, enable collaboration, and innovative behaviour and attitudes through encouragement. Figure 4.1 below illustrates how these emergent themes are connected to the aim of the study, together with the associated sub-themes.

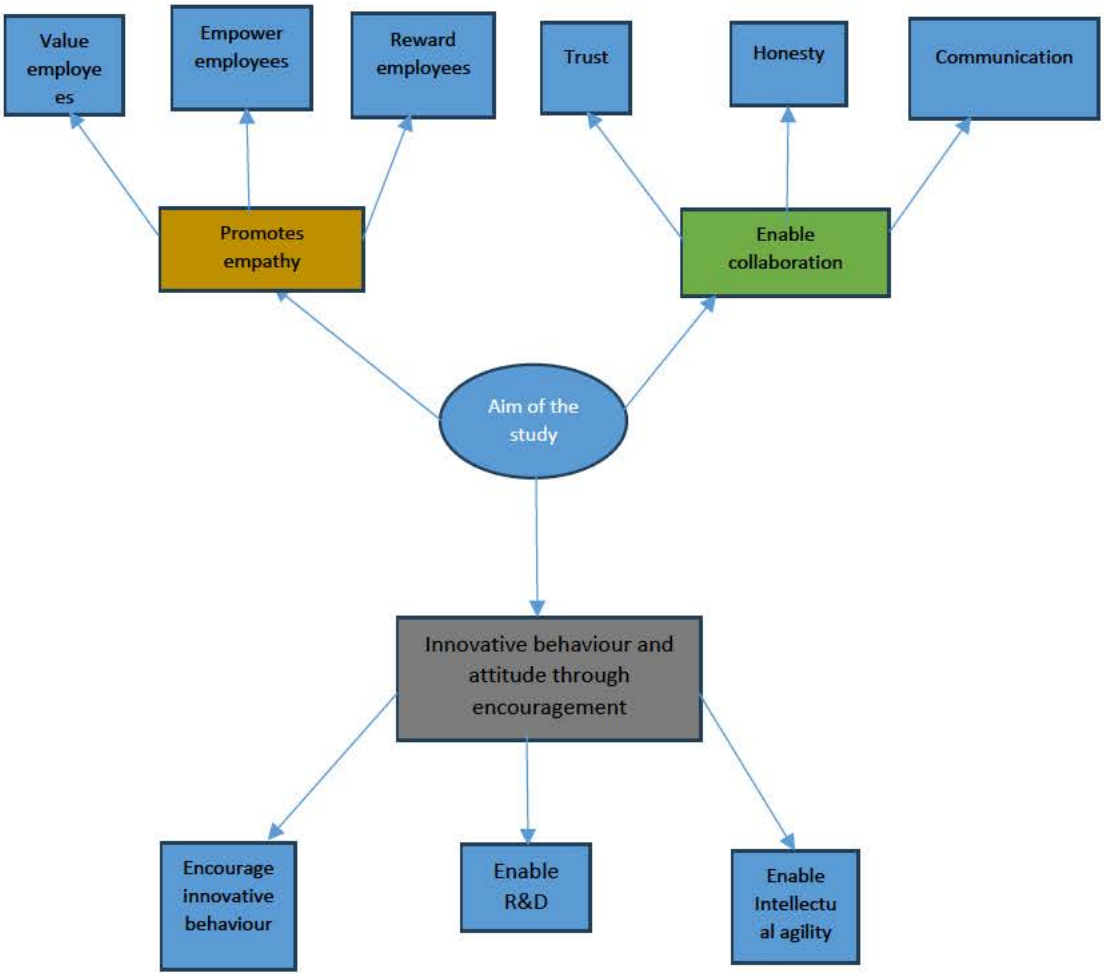


Figure 4.1: New emergent themes. Source: Author

4.3.1 New category one: promotes empathy

From the interview data, the theme of *promoting empathy* emerged as a new and important aspect of leadership. All the leaders who participated in the interviews confirmed that leadership is a complex combination of various attributes. However, the style and approach adopted were dependent on the situation, scenario, or nature of the project. Bacq and Alt (2018) highlighted that empathy displayed by an entrepreneur can have a positive effect on the motivation of staff to carry out entrepreneurial activities at work while establishing business values within the business (Khalids & Sekiguchi, 2018). This perspective of Bacq and Alt (2018) was acknowledged and illustrated by Participant Leader L9, who believed that it is crucial to make managers feel valued by respecting their personal and professional worth while recognising the contribution made, which can motivate them to feel more engaged in the work:

> I deeply value the well-being of my team members, and I am committed to ensuring that they feel motivated, heard, and supported. It is crucial to me that they recognise the significance of their contribution to our projects (Participant Leader L9).

For L2, the leader needed to establish a solid relationship with his team by indicating empathy, which served as a foundation for building trust. L2 contended that his leadership style can foster rapport with his team members by leading from the front and setting an example of being empathic:

> As an entrepreneur, it is very important to lead by example and to show empathy towards your team members. This empathy helps to create a supportive environment where everyone can work together towards a shared vision. In smaller teams and startups, especially in the beginning, providing comprehensive training is essential to ensure that everyone is aligned and understands the company's objectives and values of the team, including being empathic and understanding to others (Participant Leader L2).

Empathetic leadership plays a crucial role in empowering followers by recognising the strengths and the needs of the employee and then actively supporting staff development (Zivkovic, 2022). Jian (2021) contended that embracing empathetic leadership practices involves acknowledging and meeting the diverse skills, abilities and needs of individuals. Illustrating this, L5 noted that effective leadership requires a receptive attitude towards staff, being able to listen to their concerns, understanding their perspectives, and recognising their strengths. This approach can foster a culture of continuous learning and development, which can lead to improvements in individual and collective performance:

> Leading effectively goes beyond just assigning tasks. I nurture the growth of my team and inspire them to develop as leaders. When your team flourishes, so does the management and the entire organisation. Therefore, I provide guidance and ensure the well-being of my team members. As the leader of my team, I understand that they look up to me for inspiration, guidance, and support in addressing every issue, task, and challenge that arises. That is why I strive to offer clear and constructive guidance that empowers my team to approach each task with confidence and a clear sense of direction, but I manage by individualising my approach to each employee, indicating empathy to everyone (Participant Leader L5).

L7 emphasised the significance of engaging with staff on a personal level to foster a sense of belonging through being empathetic. L7 believed that getting to know the staff personally and encouraging open communication without any barriers was crucial. This approach can help improve the team's performance and promote innovation:

> It is important to familiarise yourself with your employees at a personal level and be aware of their personal issues. It can be achieved by open communication, showing acts of kindness to your employees yields better performance and innovation (Participant Leader L7).

Focusing on the manager's perspective on *promoting empathy*, Participant Manager M8 supported the view that empathy was critical in creating a meaningful connection between leaders and managers. This could be achieved by fostering a culture of honesty and communication, which develops a deeper level of trust amongst team members and encourages engagement. The statement of M8 is in line with the study of Deliu (2019), who proposed that empathy is intricately integrated into the business framework and ethos, emphasising the critical role of understanding and nurturing teams to build trust through honesty while empowering employees. This approach not only enhances the overall morale and job satisfaction of employees but also positively influences the organisational culture. M8 further asserted that in his organisation, a leader's leadership style has been characterised by being considerate about personal issues:

> The leader of my company is helpful and cooperative; he always empowers, motivates, and respects team members. My leader understands how important communication is, therefore, we have implemented an open and respectful working environment with open communication throughout the business. To maintain this, the leader actively engages with the team, and he is always focused on personal development by arranging individual meetings and courses for skill development. There is also an established reward system for employees to appreciate their efforts acting as a recognition of their contribution (Participant Manager M8).

M2 discussed his relationship with the leader and how open and friendly he was with the management team. This openness eventually helped the team to be more transparent about their insecurities about the project they were working on. This empathetic attitude of the leader played a vital role in enhancing and nurturing the team's creative side, thereby creating an environment from which new innovative solutions can be generated.

> The CEO is friendly and approachable. His non-traditional approach to leadership gives us the freedom to share our ideas openly, demonstrating his empathetic attitude. He encourages, enables and values open communication with his employees and does not believe in a bureaucratic company structure. Because of this, we feel comfortable being open with him, and he is clear about his expectations of us. He communicates and assists each employee; it feels like we are working with a colleague rather than a leader or boss (Participant Manager M2).

In conclusion, the data from the interviews highlighted the pivotal role of leadership empathy in fostering a positive and productive workplace culture. Empathy enables leaders to build trust, enhance team morale, and promote individual growth by acknowledging and addressing the needs and strengths of employees. By promoting open communication and fostering personal connections with employees, leaders cultivate supportive environments that encourage innovation, engagement, and mutual respect. Figure 4.2 below illustrates the connection between valuing employees, empowering them, and rewarding the workforce through *promoting empathy*.

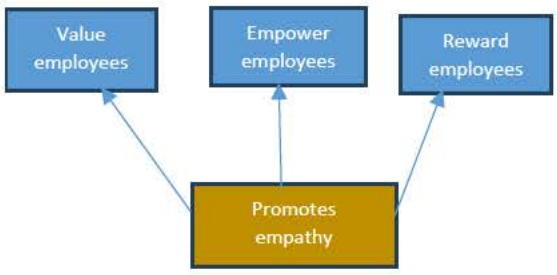


Figure 4.2: Theme One. Source: Author

4.3.2 New category two: enable collaboration

Analysis of the interview transcripts revealed the emergence of a second theme, *enabling collaboration*. All the participant leaders acknowledged that they adopted a hands-off approach, empowering their team members to generate creative ideas and make their own decisions. This empowerment of employees, however, can only be achieved through the creation and then nurturing of a collaborative culture which enables open communication and mutual trust. Jing et al. (2020) highlighted that several pivotal characteristics can significantly influence the establishment of this collaborative culture. These characteristics can include the provision of

enabling the employee to work autonomously to achieve a common objective while actively participating in the decision-making process, which can be achieved through the development of a strong sense of belongingness within the workplace. These facets play a significant role in fostering a collaborative environment where individuals are motivated to work together towards shared goals. In describing these attributes, L10 emphasised the importance of fairness in a leader as this helps to build trust and empowers staff to become competent decision-makers, whereby collaboration could be promoted and enabled. For L10, when the managers were allowed to make decisions together with their leadership team, it promoted a collaborative culture, which ultimately helped the company achieve its goals:

> A leader needs to be unbiased in all situations. Regardless of the circumstances, the leader has the responsibility of ensuring that all individuals are treated without bias. Embracing a hands-off approach is exceedingly influential in this regard, as it grants employees the autonomy to make decisions independently, thus fostering a culture of empowerment and encouraging them to cultivate their problem-solving abilities. This approach not only nurtures a sense of collective growth within the organisation but also drives everyone towards the attainment of shared objectives (Participant Leader L10).

L4 focused on the cultural and social issues at play within the company and posited that fostering a collaborative culture amongst staff who come from a diverse range of backgrounds can be difficult. L4 provided a solution to this problem, advocating for a delegative leadership style to make his employees work together as a collective unit:

> I work more as a delegator rather than somebody who micromanages. Because I have people on my team with different educational and even societal backgrounds. And as a leader, I think my job is to manage their [employees] differences that are present there within the team, and somehow find a way for them to work together as a collective unit and to contribute to the organisation (Participant Leader L4).

L5 held a similar view and emphasised the importance of fostering an inclusive culture within the workplace. For L5, if a leader is approachable and attentive to staff concerns, values their opinions, and encourages teamwork, it assists staff in generating new ideas through collaboration:

> It is important to value your employees, and an inclusive culture is key to success. That is why I employ a hands-off approach that empowers employees to generate

> innovative ideas. I believe that having an innovative and creative team, working in collaboration, greatly contributes to the progress of the company (Participant Leader L5).

Participant Leader L6 indicated that, as an owner-manager, it was imperative to collaborate with the team to foster growth. Given the impracticalities of considering all business aspects, the input of managers is pivotal in making sound decisions. As a leader, there was a need to exhibit a degree of adaptability and receptiveness to suggestions. This approach fostered a collaborative environment conducive to success:

> I am the sole owner of my company, which means I bear the full responsibility for its operations. However, I realise that I cannot possibly consider every perspective on my own. For the company to thrive and for our team to be content, I must be receptive to the ideas and input from my managers by providing this environment. I have come to understand the importance of remaining flexible and open-minded when it comes to considering suggestions from the team. Therefore, as the owner and CEO, I must approach their input with an open mind and remain flexible in adapting to their suggestions (Participant Leader L6).

A collaborative culture can enable an effective exchange of ideas, thereby fostering an ethos of knowledge acquisition. This strategy can lead to the development of the workforce through open communications and the removal of barriers between staff and leaders. Ultimately, this improves creativity and productivity through collaboration. Participant Leader L8 acknowledged that in his company, there is a protocol for conducting weekly meetings. These meetings provide a platform for each team member to share their thoughts and bring new ideas for discussion:

> We, once a week, arrange a get-together to discuss with our teams, in which almost 30 to 35 team members take part in that discussion. Any of the team workers can put their ideas on the table so we can have a healthy discussion on their ideas and their plans. So, in my company, I am always very flexible about this, and most of the time, we get very good ideas for our IT products (Participant Leader L8).

Focusing on the manager's perspective as to *enable collaboration*, Participant Manager M2 emphasised the importance of the open and friendly relationship he has cultivated with his leadership team. This supportive environment enabled M2 to express his project-related insecurities openly, knowing that he would gain a degree of empathy, understanding and

constructive feedback. M2 stated that a friendly collaborative environment created by the CEO in the workplace fostered open communication between leaders and managers, reduced barriers, and promoted innovative activities. M2 concurred that the CEO's friendly nature was instrumental in removing barriers and creating a sense of security for staff to express their opinions, thereby facilitating collaboration:

> The CEO-friendly approach fosters an environment where we feel free to openly share our thoughts and ideas without any reservations. The CEO encourages open communication with the employees, which enables us to engage with him openly (Participant Manager M2).

For M10, the leadership of his company actively encouraged open communication, allowing for the exchange of ideas and input into the business's strategies. The company's leadership was committed to fostering a corporate culture that recognised and valued the potential of the staff, by providing an environment where employees felt comfortable sharing their ideas and perspectives, leading to the formulation of an effective business collaborative environment. The leadership in M10's company was dedicated to promoting open dialogue and communication between staff and the organisation's leadership team:

> Leadership is supportive and creates an environment where staff members feel empowered to express their ideas, thoughts, and concerns. For example, the leadership at my company consistently brings out the best in me by fostering an open and collaborative atmosphere. This encouragement empowers me to share valuable insights and contribute to functional skills, team orientation, and strategic thinking (Participant Manager M10).

M6 discussed the challenges of managing limited resources in a start-up, emphasising the critical role which leaders play in ensuring successful project execution. In such scenarios, promoting a culture of collaboration was paramount to optimize efficiency. To contextualise this, M6 underscored the significance of the company's leadership of having a close collaboration with staff frequently, whereby cultivating a robust and productive collaborative environment within the organisation. Interestingly, part of the reason could be attributed to limited resources in the organisation:

> In our company, the leadership is extensively involved in our day-to-day decision-making processes. This high level of involvement is primarily driven by the limited financial resources available to us; therefore, the leadership ensures that every

> decision made is the most effective. Our direct collaboration with the CEO and CTO [Chief Technology Officer] is integral to our operations, as they actively guide the design process, backend and frontend development [of the application], as well as the overall project plan (Participant Manager M6).

The participants' responses indicated that leaders facilitate collaboration within their organisations by cultivating a culture that prioritises trust, open communication, and honesty. These leaders are instrumental in this process by adopting a hands-off approach that empowers employees, encouraging both autonomy and creativity while fostering a sense of belonging. By emphasising fairness, adaptability, and active involvement of employees in decision-making, leaders establish a solid foundation for effective teamwork. This collaborative culture not only promotes innovation and enhances productivity but also facilitates achieving shared organisational objectives. In Figure 4.3 below, the theme of *enable collaboration* indicates the connection to the sub-themes of trust, honesty and communication, which can be established through empowering the workforce.

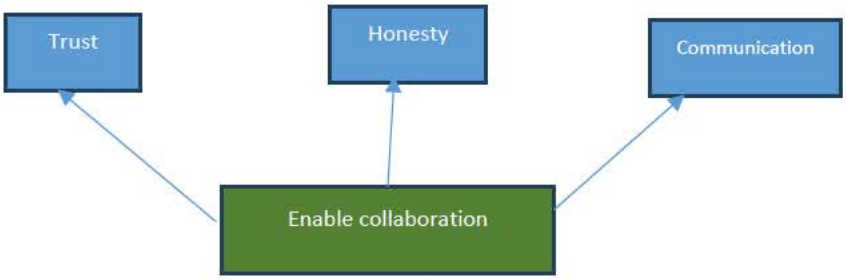


Figure 4.3: Theme two. Source: Author

4.3.3 New category three: innovative behaviour and attitude through encouragement

The third theme that emerged from the interviews' analysis and interpretation was *innovative behaviour and attitude through encouragement.* All the leaders and managers participants agreed that creative thinking is paramount for business progression, particularly in high-technology industries. Effective leadership was also identified as a key aspect within the rapidly evolving business environment that characterises the modern world. The participant leaders

further emphasised the need for leaders to adapt their management style to the specific project's nature and situation, recognising that outdated management theories are inadequate to foster innovative behaviour and attitude.

Participant Leader L1 highlighted the importance of innovative thinking and suggested that incentivising creative and innovative behaviour within the company can be achieved through the establishment of a performance-based reward system. By establishing this initiative can be linked to performance, L1 highlighted that the concept can motivate employees to strive to be innovative. L1 encouraged an innovative attitude by promoting a company culture of creativity and 'out-of-the-box' thinking. The emphasis was on innovative thinking and removing constraints, which can inspire employees to explore unconventional ideas and utilise their intellectual potential creatively:

> Innovative thinking helps employees to utilise their intellectual capabilities creatively. In our company, the focus is on innovative thinking, we promote and encourage this kind of environment by establishing a reward-based system, which depends on the performance of the employees. It enhances creativity and innovation among the employees. I think it allows the team not to think in a closed box. It allows them [the staff] to think freely, it allows them to utilise their intellectual capabilities and be more creative in their thought process whenever there is an issue, instead of just looking at it as per normal routine, they can think of some creative out-of-the-box solutions. In our company, there is a strong emphasis on fostering innovative thinking (Participant Leader L1).

L10 encouraged innovative behaviour and attitude by fostering intellectual freedom and creating an environment where managers felt empowered to share their ideas. To achieve this, L10 encouraged his managers to express their opinions without any restrictions to encourage innovation. By doing so, L10 suggested that the staff would be able to generate new ideas and approaches to problem-solving, while also fostering a workplace culture that values and rewards innovation. Overall, L10 emphasised the importance of intellectual freedom, which can serve as a reminder of the critical role that open communication and intellectual curiosity can play in driving success in today's dynamic high-technology business environment:

> Encouraging employees to think creatively and come up with cost-effective solutions is a pivotal aspect of my leadership style. This approach motivates them [the team] to think out of the box and propose innovative ideas, ultimately

> benefiting the company by enabling it to win projects at lower costs. By fostering intellectual freedom and creating an environment where all employees have the opportunity to express their ideas, we aim to harness the full potential of our team. The promotion of creativity and innovative thinking serves to inspire employees to push boundaries, think outside the box, and contribute valuable, cost-effective solutions that can greatly benefit our company (Participant Leader L10).

L4 encouraged innovative behaviour and attitude by valuing the team's input and through actively listening to their ideas, while also creating a supportive and inclusive culture. To illustrate this, L4 highlighted the importance of cultivating an innovative mindset among managers to drive goal attainment through innovative approaches:

> I have always valued openness and innovation, both as an individual and as a leader. When I was a team member, I found it crucial that my superiors and managers were open to listening to the team's ideas. Now that I am in a leadership role, I hold myself to the same standard, expecting my team to be forward-thinking and bring original ideas to the table. I constantly encourage them to think creatively and come up with fresh approaches, rather than simply replicating past experiences. Even when we are revisiting familiar tasks, I still strive for new ideas, believing there is always room for improvement (Participant Leader L4).

Participant Leader L5 strongly emphasised the significance of effective leadership in cultivating a working environment that fostered innovative, original, and creative thinking amongst the employees. This entailed creating a culture where employees were encouraged to think 'outside of the box' to contribute to the organisation's vision. By actively seeking input from employees through encouraging them to generate unique and unconventional ideas, the individual's full intellectual and creative potential can be utilised:

> In our organisation, we place a strong emphasis on innovation and creativity as the cornerstones of our operations. We actively encourage our employees to generate innovative ideas and enhance their creativity so that we can deliver the best possible services to our clients. These values are fundamental to our organisation and guide our every decision. We understand the importance of listening to our team, understanding their perspective, and embracing their ideas. This approach enables us to foster new and innovative ideas and collaborate with our team to bring those ideas to execution (Participant Leader L5).

From the manager's perspective, M10 has acknowledged that in his organisation, leadership values creative freedom. As a member of management, M10 has been encouraged to introduce innovative and creative ideas to enhance the company's operations:

> Our organisation highly values the freedom to express new thoughts without any boundaries. As a vital member of the management team, I have continually received encouragement to come up with innovative ideas. For instance, I am particularly motivated when I have the opportunity to present innovative ideas related to the core business operations of our company. I have been involved in combining the efforts and plans of all critical functions into the execution, governing models, team orientation, and various risk mitigation activities. This collaborative approach has allowed us to explore new ways of driving the business forward and maximising our potential (Participant Manager M10).

M7 presented another example from a recent project, where a client approached the organisation to seek technical advice. However, owing to the client's lack of expertise in software technology, they were unable to clearly articulate their product requirements. To overcome this challenge, the team resorted to employing innovative and creative solutions for technical problems during the problem-solving phase. Throughout this process, the leader encouraged the team to work innovatively on the product to simplify its functionality for the client:

> As I said, the company that I am working with currently is a software consultancy. When the client comes to us with a set of requirements, those requirements are usually not in good shape, [and] there can be more wants than needs on those requirements. And we have to break them [the requirements] down into the technical requirements and separate the wants from the needs as well. Once you are involved in the requirement phase breaking down the problem and coming up with the solution, then you are always invited to come up with creative solutions (Participant Manager M7).

In conclusion, the insights from the interviews underlined the importance of encouraging innovative behaviour and attitude within organisations. Leaders and managers emphasised the significance of encouraging creative thinking, open communication, and intellectual freedom to drive innovation. By adapting leadership style to specific contexts and valuing employees' contributions, organisations can create an environment that promotes trust, collaboration, and the generation of cost-effective solutions. Below in Figure 4.4, the connection of encouraging

innovative behaviour, enabling research and development opportunities amongst employees and facilitating intellectual agility is grouped under the main theme of displaying *innovative behaviour and attitude through encouraging the workforce*.

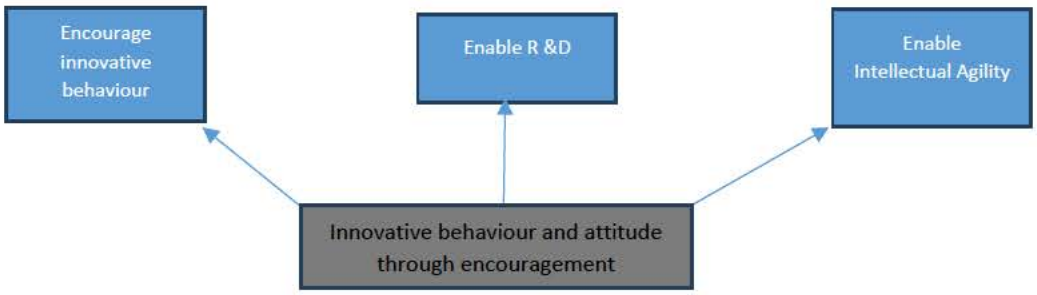


Figure 4.4: Theme three. Source: Author

4.4 Summary of implications of findings on research questions

This section will outline the findings of the data gathered from the interviews, with the themes organised into categories linked to the existing literature, as presented in Chapter Two. The section commences by illustrating how each theme/category relates to the research questions and highlights key behaviours which emerged from the analysis of the participants' interview transcripts.

The participants shared their perspectives on how entrepreneurial leaders of high-technology SMEs in Pakistan can use their role to foster innovation. Table 4.2 below highlights the themes as to research question one.

Research Question One	Theme/Category	Key behaviours	Section
How do entrepreneurial leaders of Pakistani high-technology SMEs perceive their influence in promoting a creative working environment to facilitate innovation?	Often comes up with radical improvement ideas for the products/services being sold	Leaders encouraged open ideation and team collaboration to develop innovative solutions collectively.	4.2.1
	Often comes up with ideas of completely new products/services that could be sold	Leaders adopt a consultative approach, involving staff in ideation and emphasising feasibility and market analysis.	4.2.2
	Take risks	Leaders focus on calculated risk-taking, emphasising team collaboration and exploring innovative ideas within resource limits.	4.2.3
	Have creative solutions to problems	Leaders inspire teams, reward creativity, and foster a culture of brainstorming and 'out-of-the-box' thinking.	4.2.4

	Demonstrates passion for his/her work	Leaders' passion motivates employees, emphasising support and goal alignment to foster creativity and engagement.	4.2.5
	Has a vision for the future of the business	Leaders communicate a clear vision, emphasising adaptability, inclusivity, and collaborative strategy-setting.	4.2.6
	Challenges and pushes staff to act in a more innovative way	Leaders encourage autonomy, provide resources, and reward innovative efforts to promote creative problem-solving.	4.2.7
	Promotes empathy	Leaders value employees personally and professionally, creating a supportive and inclusive environment that enhances motivation.	4.3.1
	Enable collaboration	Leaders foster open communication and trust, enabling teamwork and shared decision-making to drive innovation.	4.3.2
	Innovative behaviour and attitude through encouragement	Leaders reward creativity, stimulate intellectual agility, and promote an innovative-driven workplace culture.	4.3.3

Table 4.2: Themes related to Research Question One. Source: Author

The analysis of the participants' responses highlighted how entrepreneurial leaders view their role in cultivating an innovative environment within high-technology SMEs. The participants highlighted certain behavioural traits such as encouraging innovative ideas, engaging staff in the development of new products or services and taking calculated risks. The interview transcripts revealed that leaders inspire creativity by rewarding innovative solutions, articulating a clear vision, and demonstrating a passion for their work. Furthermore, empathy and collaboration emerged as vital attributes needed for these leaders to possess. This included valuing their employees, fostering open communication, and creating opportunities for collaborative teamwork.

The participatory managers identified how their leaders promoted and encouraged innovative work behaviour, which is represented in Table 4.3 when addressing research question two:

Research Question Two	Theme/Category	Key behaviours	Section
What do managers of Pakistani high technology SMEs believe that leaders need to do to enhance innovative behaviour?	Often comes up with radical improvement ideas for the products/services being sold	Leaders need to encourage freedom and brainstorming activities to develop innovative solutions collectively. The support of dedicated teams during the ideation and then implementation phases.	4.2.1
	Challenges and pushes staff to act in a more innovative way	Leaders need to inspire, provide autonomy, and motivate employees with rewards and recognition for their innovative contributions.	4.2.7
	Wants staff to challenge the current ways we do business	Leaders should create an environment where employees feel safe to propose changes and innovate existing business processes or product design.	4.2.8
	Promotes empathy	Leaders need to value employees' input, recognise their contributions, and foster a supportive environment whereby increase engagement and innovative behaviour.	4.3.1
	Enable collaboration	Leaders should adopt a hands-off, inclusive approach, encouraging teamwork and open communication to create a collaborative culture that fosters creativity and innovation.	4.3.2

	Innovative behaviour and attitude through encouragement	Leaders incentivise creativity through rewards, enable intellectual freedom, and provide opportunities for research and development.	4.3.3

Table 4.3: Themes related to Research Question Two. Source: Author

The participatory managers noticed that their leaders encouraged innovative behaviour by facilitating autonomy, promoting brainstorming sessions, and recognising employee contributions. Several key themes emerged, such as the creation of a safe environment for challenging the existing status quo, valuing employee input, and promoting an inclusive and collaborative environment in the company. These managers emphasised the significance of empathetic leadership, where the employee's contribution is recognised, and a supportive workplace culture is nurtured. These practices, along with incentives for creativity and opportunities for intellectual engagement, can contribute to the establishment of an innovative workplace.

These participants also highlighted what leadership style needed to be adopted by leaders of Pakistani high-technology SMEs to promote an innovative working environment. The key themes are presented in Table 4.4, which addresses research question three.

Research Question Three	Theme/Category	Key behaviours	Section
What leadership style is employed by leaders of Pakistani high-technology SMEs to promote an innovative work environment?	Often comes up with radical improvement ideas for the products/services being sold	Leaders need to encourage teams to think 'out of the box', fostering ideas through open dialogue, consensus-building, and supporting creative problem-solving.	4.2.1
	Often comes up with ideas of completely new products/services that could be sold	Create a hybrid top-down and bottom-up approach to ensure input from all employees, promoting collaboration and innovative suggestions for new initiatives.	4.2.2
	Take risks	Leaders need to employ calculated risk strategies by trusting employee ideas while balancing risk with resource constraints.	4.2.3
	Has creative solutions to problems	Leaders should empower employees to explore innovative solutions, often through brainstorming and reward systems for creative contributions.	4.2.4
	Has a vision of the future of business	Leaders need to articulate a clear vision for the future, ensuring alignment through transparency, adaptability, and team engagement.	4.2.6
	Challenges and pushes staff to act in a more innovative way	Leaders should motivate staff with incentives, create competitive environments, and foster autonomy to promote creative and innovative approaches.	4.2.7
	Promotes empathy	Empathy is shown by valuing employees' well-being, empowering them, and fostering trust to create a safe through providing a supportive environment in the business.	4.3.1
	Enable collaboration	A hands-off approach encourages teamwork and collaboration, ensuring open communication and inclusivity in decision-making.	4.3.2
	Innovative behaviour and attitude through encouragement	Leaders can promote a culture of innovation through performance-based rewards, and intellectual stimulation, by providing opportunities for independent idea generation.	4.3.3

Table 4.4: Themes related to Research Question Three. Source: Author

Table 4.4 outlines the specific leadership styles which had been adopted by the leaders in Pakistani high-technology SMEs to promote innovation. These leadership approaches indicated a synergy of entrepreneurial behavioural traits advocated by the ENTRELEAD model, together with several new emergent attributes such as empathy, collaboration, and intellectual encouragement, achieved by creating a conducive environment to be innovative. The leaders indicated they saw the encouragement of creative ideas, the need to promote teamwork, and the balancing of calculated risks with available resources as necessary attributes. The ability to be a visionary leader played a significant role, which included clearly communicating goals and aspirations within the team. The leaders also saw the ability to exhibit adaptability, empathy, and inclusiveness, whereby empowered employees to take ownership of creative ideas and solutions. This included the emphasis being placed on performance-based rewards, intellectual freedom, and providing opportunities for creative ideas.

4.5 Summary

To conclude, this study has provided critical insight into how entrepreneurial leadership can influence innovation within Pakistan's high-technology SMEs. Using the ENTRELEAD model, the research identified eight predefined leadership traits, as well as three emergent themes: promotes empathy, enables collaboration, and innovative behaviour and attitude through encouragement. These insights highlight the importance of adaptive leadership, which aligns with Renko et al.'s (2015) model but also underscores unique cultural and situational factors relevant to Pakistan’s high-technology SMEs.

The findings emphasise that entrepreneurial leadership extends beyond risk-taking and creative solutions; it requires building trust, promoting open communication, and fostering a collaborative culture that values diverse perspectives. Leaders in these SMEs encourage innovation by motivating teams to think creatively, involving employees in decision-making, and creating an environment where autonomy and empathy are valued. By combining established entrepreneurial traits with these emergent themes, leaders can cultivate a more innovative, resilient, and forward-thinking workforce. In summary, this research supports the notion that an entrepreneurial leadership style can significantly enhance innovative practices within SMEs by fostering a supportive, inclusive, and collaborative organisational culture. This study therefore, contributes to the broader understanding of entrepreneurial leadership's role in driving innovation and offers a valuable entrepreneurial leadership framework for leaders aiming to implement these practices in similar contexts.

Chapter Five
Discussion

5.1 Introduction

In the literature and data context, this chapter examines the research's findings. This study aims to investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SMEs to facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model. To achieve this, this phenomenological study focused on the lived experiences of the staff to understand their perception of the leadership style adopted by their leaders. The chosen research methodology was effective in collecting the relevant data and assisted in understanding the perspective of entrepreneurial leaders and managers. Semi-structured interviews were used to obtain a comprehensive knowledge of CEO/leaders and managers of high-technology SMEs in Pakistan. A Phenomenological thematic analysis approach was employed for the interpretation of data, resulting in three emergent themes: promotes empathy, enables collaboration and innovative behaviour and attitude through encouragement. Furthermore, this chapter discusses the nature of the process of innovation in leadership in SMEs in Pakistan in comparison with previous literature and conceptual frameworks. Finally, the study proposes a new theoretical framework derived from the findings, which expands the ENTRELEAD model with emergent themes to better address the dynamics of leader-follower interactions in promoting innovation. The chapter finishes by outlining some areas where findings concur with the body of research already in existence, but in specific scenarios, the SMEs in Pakistan depart from existing theories of entrepreneurial leadership style. Therefore, a revised theory for a successful leadership style has emerged, which is unique to Pakistan.

5.2 Interpretation of results and key findings

This study interviewed twenty Founder/CEOs and managers of SMEs in Pakistan to investigate their lived experiences and understanding of entrepreneurial leadership style and its influence on innovation. The basis of the interview was informed by Renko et al.'s (2015) eight-item ENTRELEAD scale, but also from the leadership styles literature, with a specific focus on entrepreneurial leadership studies by Gupta et al. (2004). In using the entrepreneurial leadership model as advocated by Renko et al. (2015), the study revealed several emergent themes, which represent the lived experience of managerial and executive teams, and the leadership strategies employed by them in their businesses.

The ENTRELEAD model provided a foundational structure for analysing entrepreneurial leadership traits, which were reflected in behaviours observed in Pakistan's high-technology SME leaders. According to the model, leaders who often come up with ideas for radical improvements or entirely new products and services play a crucial role in fostering a culture of innovation. Leaders in this study actively involved their teams in ideation, thereby encouraging employees to think creatively and provide input. By prioritising inclusivity, these leaders create an open environment where ideas are valued and cultivated, rather than relying solely on a top-down approach. Furthermore, the ENTRELEAD model identifies risk-taking as a critical component of entrepreneurial leadership. The study reveals that leaders in these SMEs are willing to take calculated risks, often by evaluating options collaboratively with their teams. This approach promotes a shared sense of ownership and encourages employees to engage in innovation. Leaders view risk not as an isolated action but as a team-oriented process, enhancing trust and supporting a risk-tolerant culture that facilitates new product and process development.

The leaders and managers interviewed provided evidence that supports the studies of Gupta et al. (2004) and the entrepreneurial scale categories by Renko et al. (2015). The investigation revealed certain recurring themes, in particular from the managers' responses on path creation, creativity, ideation, innovation and empathy, which follow the technological trajectory. However, leaders' responses were fixated on product market fit and client satisfaction and did not engage in exploratory creativity activities because of the limitation of resources. However, they supported and encouraged their staff to be more creative in their job role and to solve the current product/project problems with innovative ideas. In fact, innovative discussion was encouraged in these businesses, and management also organised different workshops for staff skill development. Generally, the leaders of SMEs in Pakistan showed evidence of collaborative leadership.

Overall, in this study, the leaders interviewed did not have any relevant knowledge of academic leadership theories. There was a general awareness of the traditional labels associated with leadership styles, including autocratic leadership style, delegative leadership style, participative leadership style and democratic leadership style. However, interestingly, both managers and the leaders provided examples which were specifically associated with entrepreneurial leadership. When the leaders were asked specifically about their leadership style, all the participants emphasised that they tended to use a mixture of leadership styles or mixed approaches while demonstrating some understanding of an entrepreneurial leadership

style. This illustration is reflective of Thompson-Whiteside et al. (2017), who stated that to foster trust in organisations, CEOs frequently adopt their own brand of entrepreneurial attitude.

Throughout the study, it was evident that the leaders of SMEs in Pakistan are project-oriented rather than strategic in their view, and businesses are bound by a lack of freedom to choose their present or future strategy because businesses are subcontractors. In contrast to large businesses, where there is an established R&D department in technology industries, SMEs focus on a niche market and craft their skills according to the situation for the purpose of gaining a market advantage. All ten businesses in this study are owner-managed, so the function of SMEs in Pakistan can be understood better in the context of Schumpeter's entrepreneurial innovation model (Kamien & Schwarz, 1982). All the SMEs interviewed for this research appear to have their own niche market-led strategies where they seek to expand and grow.

5.3 Emergent themes beyond the ENTRELEAD model

While the ENTRELEAD model emphasises characteristics like innovation and risk-taking, this study introduces three emergent themes that were vital in Pakistani SME leaders' leadership style. These new themes of empathy, collaboration, and innovative encouragement highlight additional behaviours essential for fostering an entrepreneurial mindset within a culturally and resource-limited environment.

5.3.1 Promotes empathy

Empathy emerged as a key leadership quality that was not initially captured in the ENTRELEAD model but proved vital in motivating employees and fostering a sense of belonging. Leaders demonstrated empathy by valuing employees' contributions and recognising their personal and professional challenges. For instance, some leaders engaged in open communication and provided support for personal challenges, such as family issues, creating a supportive and psychologically safe work environment. This empathetic approach aligns with findings by Bacq and Alt (2018), who emphasised that empathy can strengthen employees' motivation to engage in entrepreneurial activities. In Pakistan's SMEs, empathy is a foundation for trust-building, as leaders who show genuine care for employees can enhance morale, boost engagement, and ultimately promote a culture where employees feel encouraged to contribute creatively.

5.3.2 Enable collaboration

The study emphasises the role of collaboration in leadership, another theme that extends beyond the traditional scope of the ENTRELEAD model. Leaders adopted a hands-off approach, granting employees autonomy in decision-making and problem-solving. This empowerment is crucial in fostering collaboration within teams, as it builds trust and promotes mutual respect. Leaders facilitated collaboration by creating opportunities for team members to contribute ideas and share in decision-making, which in turn led to innovative solutions. The collaborative approach helped bridge differences among employees from diverse backgrounds, enabling them to work together effectively toward common goals. This approach aligns with research by Jing et al. (2020), which found that collaborative leadership promotes knowledge sharing, autonomy, and a strong sense of team cohesion, factors that are critical for innovation in resource-constrained environments.

5.3.3 Innovative behaviour and attitude through encouragement

A third emergent theme was the encouragement of innovation through rewards, recognition, and intellectual freedom. Leaders in this study recognised that creating a culture of innovation requires continuously motivating employees to think creatively and propose new ideas. They used various strategies, including incentive-based systems and open discussions, to foster an innovative mindset among employees. For example, leaders established monthly rewards and bonuses to recognise creative contributions, which encouraged employees to engage in creative problem-solving without the fear of failure. This approach aligns with Renko et al.'s (2015) ENTRELEAD model, which emphasises creativity but extends it by recognising the importance of structured encouragement and intellectual freedom as ongoing motivators. Leaders encouraged staff to explore new ideas, provided constructive feedback, and rewarded risk-taking behaviour, thereby reinforcing the organisational value placed on innovation.

5.4 Discussion on findings

Innovation is a basic function for technological businesses to grow; however, the major content of the interviews shows the complexity to achieve innovation with so many influences because of the bounded nature of the businesses. Both the leaders and managers suggested innovation is important in the progress of business, especially in high-technology businesses, and they agreed that effective leadership plays a key role in a rapidly changing business environment in today's world (Alam, 2024).

The evidence from the interviewed data shows limited progress in achieving radical innovation because of limited resources and the subcontracted nature of their business environment (Ullah & Qureshi, 2019). Businesses are bound by a project-by-project approach to their activities, which leads to the limited scope of radical innovative activities in businesses.

The leaders of SMEs who were questioned for this study had a clear focus on satisfying their stakeholders and on the successful completion of the product or project. Consequently, there was limited scope for innovation, and the evidence did not show ambidextrous leadership of innovation (Uhl-Bien & Arena, 2018). The study shows that leaders agreed with radical improvement of ideas when working on products or services (Renko et al., 2015), but overall evidence shows they do not have the freedom to establish an ideation process in practice because of limited resources.

Business leaders revealed that they were able to set a separate budget for exploratory innovation, but sometimes needed to reduce their budget for innovation processes because of the client's demands or limited resources for the particular project. Although one of the participants (L1) discussed the importance of innovative thinking, evidence showed that the business does innovate and work creatively for the completion of the project in time to avoid the extra cost and to satisfy the client. Therefore, there was little evidence from the data that leaders or managers initiated new ideas for a completely new product. Avoidance of exploratory innovation works for the SMEs in the short-term for the successful completion of the projects, but it can affect the businesses negatively in the long term because these businesses remain client dependent.

The businesses interviewed did show evidence of innovation, but these businesses heavily relied on their current product market. Pisano (2019) argued that for businesses to be innovative, they need to take risks. Renko et al. (2015) entrepreneurial leadership scale the third category discussed the leader's ability to take risks to enhance innovation in the business. Despite the leaders' focus on exploitative innovation, no participant leader explicitly indicated making a conscious effort toward exploratory innovation. This is an important difference, as exploratory innovation, defined by the pursuit of novel ideas, experimentation, and entry into new markets, has been recognised as essential for sustaining long-term competitiveness, particularly in high-technology sectors (Huang, Ding, & Chen, 2014). While the scope of this study did not explicitly focus on distinguishing between exploitative and explorative innovation, the absence of exploratory innovation amongst the participant responses is

noteworthy. The outcome suggests that leaders within the Pakistani high-technology SME sector may be operating with a narrow innovation focus, potentially limiting their organisations' adaptability in fast-evolving environments. The findings highlighted an area that requires further theoretical and practical attention, particularly in developing leadership strategies that can accommodate both exploitative and exploratory innovation practices.

Although some of the managers' participants articulated in their response that they do find their leaders to some extent risk-averse. It can be said that leaders of SMEs in Pakistan are more concerned about the survival and satisfying the needs of the clients, and they are not entrepreneurial in the classic meaning of the word; therefore, leaders of these businesses do not consider radical innovation (Zacher & Rosing, 2015).

From the responses of managers, it can be concluded that managers saw their leaders as role models and looked up to them for guidance. There was also a reward and recognition system in most of the businesses, but it seemed to be a controversial topic for some leaders because of the lack of resources. One of the managers stated that the CEO motivate the team to come out with out-of-the-box solutions. There is also an active reward system in the organisation, which makes the environment of the organisation more competitive. A reward system in a business creates a sense of achievement amongst staff members, hence increasing creativity and innovation. This is in line with the findings of Jyoti and Dev (2015) who claimed that fostering employee creativity might be more effectively accomplished through entrepreneurial leadership by inspiring them. Some businesses have established performance-based reward programmes. This is evident from the data that staff also achieve motivation from rewards but having said that it also shows motivation of managers is not solely dependent on bonuses, they are intrinsic to the task of solving problems. Managers' responses showed that they are inclined towards working on interesting projects, where they can explore themselves and enhance their abilities through innovative processes. However, the reward system for staff in some businesses seems to be underdeveloped, one of the main reasons for that, leaders were conscious about it but they were concerned that, with an increase in incentives there is a potential threat of an increase of cost considering limited resources.

The businesses studied in the research did not follow a hierarchical setup, and the flow of information was from both ways (leaders and managers). All ten participants' managers agreed that transparency is very important to build a sense of trust in staff, and unbiased information sharing is a key attribute of the leader as an entrepreneur. According to managers response

transparency means being honest in communication with the stakeholders about all the matters of the business is very important. The most important factors are trust and communication and most importantly staff engagement. Generally, there was no specific set of rules or protocols placed in these businesses; all the businesses followed the business plan, and all the staff members were allowed to work within their comfort zones. The main focus of the leaders was to complete the project within the deadline, and within that boundary, all the participants' leaders gave full freedom to their staff to innovate and produce results. Leaders often showed trust in the skills of their staff and empowered them to express their innovative skills. Trusting in their staff's skills and motivating managers and staff, leaders of the businesses in this research empowered the team to perform beyond their abilities and helped the business to become relatively successful in a short period. This strategy of trusting and encouraging autonomy is common with the study of Mubarak et al. (2018), which contended that leadership needs to understand the uniqueness of individuals and empower them by providing an environment where they can solve problems creatively.

Most of the managers agreed that they have an effective way of communicating with their leaders, they are approachable, and most of the time leaders communicate in person and sometimes via email when it is required. All the leaders said that clear communication assisted them in motivating and assisting the team to focus on a specific task or problem. Linked to this need for effective communication were the clear and inspirational motivational methods, which meant that the staff could fully understand the vision of the business and how they could contribute to the future of the business. Communication style is vital in entrepreneurial leaders as a means to build trust and commitment amongst staff, and also to inspire them. Leaders of SMEs in this research exhibited some characteristics of entrepreneurial leadership style (Renko et al., 2015), but characteristics such as risk-taking, radical innovation, and ideas for new products were not consistently demonstrated by the participant leaders questioned. Similarly, there was some characteristics evidence of empowering leadership style (Cheong et al., 2019) and transformational leadership style (Hemshorn de Sanchez et al., 2022), but other constructs related to these theories were missing in the businesses under study.

Two SMEs in the study demonstrated a lack of management and staff-to-leadership communication. Managers of these businesses stated that leaders are not open to new ideas, and at the same time leaders are not transparent and withhold information. This results in problems at the management level and affects the efficiency of the staff to perform the task without being clear about the requirements of the project. These managers further added that

their inventiveness was restricted to finding quick fixes for issues like data matching and system efficiency enhancements, and final results as per required by the client. This kind of tactic may help project-oriented businesses, but at the same time, opportunities will be missed which can be availed by collaborative thinking that can lead to the innovation and eventually growth of the business.

On occasion, leaders showed entrepreneurial leadership style but largely leaders showed signs of participative, delegative, and collaborative leadership styles. Leaders did contribute in the innovation activities of the businesses, and empowering leadership behaviours were displayed commonly (Cheong et al., 2019). Leaders' primary focus was on exploitative innovation; explorative innovation was not on the leader's agenda, even though when managers push for any radical innovation in the business. This behaviour was exhibited by leaders because all the businesses in the study were project-oriented, and leaders' focus was on cash flow and satisfying client needs. Even though leaders wanted to invest in new projects which could benefit the business in the long term, they were bound by constraints. However, leaders showed a positive response to incremental innovation.

All participant leaders said they do not follow any particular leadership style, and they do not like to micromanage. Nevertheless, having said that, they all replied later that it depends on the situation and nature of the project. They did agree with the construct of entrepreneurial leadership style, but also used different behaviours to carry out operations in the business. All the leaders in the study have a close relationship with their staff and engage with them daily, except for two businesses, whose managers said leaders normally communicate through emails rather than in person. All the managers' participants in this study were pragmatic in their approach, but few showed dissatisfaction with their relationship with the leader (Denti & Hemlin, 2016). Evidence from the study showed that leaders exhibit a different array of leadership styles depending on the situation and circumstances required. This is common with the study of Garcia-Vidal et al. (2019), which stated that businesses tend not to rely solely on one way of management style because of the competitive market environment; therefore, it is important to adopt an effective way of leadership style. However, in the case of SMEs in Pakistan, influence is not solely the market environment, but leaders are bound by constraints such as stakeholders, teams, resources and organisation (Alam, 2024). The findings from the study showed that leadership competencies are not enough for them to effectively enhance innovation in the business. According to the findings, leaders tried to match their leadership style according to the situation (Thompson & Glaso, 2018).

The study's leaders were fully aware of how culture and environment affect a business's ability to foster innovation and creativity. Generally, all the participants in the study agreed innovative climate is important in the progress of business, especially in high-technology businesses, and they agreed that effective leadership plays a key role in a rapidly changing business environment in today's world. Participants in the study also added that businesses cannot rely on outdated management theories, and leaders need to change their style of management according to the situation and nature of each project. However, the development of the company culture was not based on the context of academic literature theories. The primary focus of the businesses in this research was on incremental innovation to enhance the features and functions of the product according to the requirements of the customer. Evidence from participant leaders showed that they were involved in the innovation process, and they were present in the organisation on a daily basis to provide encouragement and resources for the completion of the product or project. The primary focus of the leaders was on the delivery of the products, as revenue was linked to it. From the findings, it is also evident that a few business leaders were highly involved in day-to-day decisions, since it was a start-up. Therefore, the leadership likes to get involved because of limited financial resources, and leaders are keen to make the correct decision every time. Managers of these businesses said that they directly work with the CEO and the CTO, and they were actively involved in either the design process or the back-end development or the front-end development or the overall project plan. They are constantly involved in every decision every day.

Most of the participant managers responded that they have total freedom in their respective organisations to speak their minds, and most importantly, leaders discuss their ideas in the team meetings. This kind of environment in the business creates a sense of ownership amongst staff and makes them feel empowered, which motivates them to be more creative and innovative in their thinking process to come up with solutions to problems. The managers acknowledged that working in small businesses is challenging because one has to perform on multiple fronts in their daily work routine, but most of them expressed positive sentiments as their leaders trusted them and provided the required resources to complete the project.

Evidence from the research showed that each business had a different culture, translated by the leaders of the business, which is primarily driven by the economics and external factors affecting the environment of the business. It can be said that leaders of the businesses in this research mainly focused on exploitative innovation, whereas the focus for managers was self-actualisation rather than just the economics of the business. Although all participants' managers

acknowledged the importance of the resources for the survival of the business. Managers did show interest in the economic performance of the business, but they were more focused towards job satisfaction and working on challenging problems to enhance their creative and innovative skills.

Many managers seem to be intellectually satisfied with the opportunities provided in their businesses; one of the businesses claimed that they even started producing their own products. Evidence showed businesses that claimed to produce their own products had more financial resources as compared to other businesses in the study. Most of the managers' participants were satisfied with the communication style of leaders, except a few, who expressed displeasure with the communication style of the leader, which is mostly one-way of communication. They expressed that leaders need to engage with the team more for innovative tasks, where staff can build their skills in a better way. Nevertheless, this behaviour of leaders did not drive them away from the business; they expressed that they do feel a sense of job security and hope the leaders can develop a better work environment.

Managers show an inclination towards innovative projects; therefore, they can showcase their soft and technical skills. Two of the managers interviewed said that their leaders need to work more on entrepreneurial activities, and they said that their leaders have limited input towards creative aspects of the projects. They also stated that there is no clear vision or support system for staff in the business. These two managers also stated that leadership need to focus on the development of staff and should provide a platform for the team members where they can learn new skills. Although most of the managers agreed that they had a clear vision and strategy from their leaders for the goals. However, the focus of the leaders was on the fulfilment of the client's requirements in a timely manner. This finding does not support the category of Renko et al. (2015) scale, which states that leaders should have a clear vision for the future of the business.

It can be concluded from the data that the idea behind establishing these businesses may have been defined by a technology push. Beyond the inception of the business, the primary focus becomes to establish specific product market fit and development of the function and features of the existing product (Nagi & Tuff, 2012). Participants interviewed express that they are the primary initiator of innovation in the business, and challenge and encourage their staff to act in a more innovative way (Renko et al., 2015). In practice, the participant leaders undertook exploitative innovation to gather the clients and to meet the market demands by creative

problem-solving skills to develop the existing process and products. The foundation of SMEs in this research came from novelty and adaptation, which consist of risk-taking and innovation within the boundaries (Korzynski, Kozminski, Baczynska & Haenlein, 2020). All of these SMEs are owner-managed and in the early stages of these businesses needed to establish a product market fit and to control resources. At the start, most of these leaders had worked alone or with a very small group of teams, while dealing with constraints such as clients, funding and resources for the development of acquired projects. Therefore, the main concern of the leaders in such an environment was survival, which further defined their future behaviour as leaders of innovative businesses. Once they established a product-market fit or service for their business, leaders were bound by the client demand, and innovation became path-dependent, only using their creativity to make changes to the existing product or service with limited technology push. The main objective of these businesses is to make profitable returns; therefore, they can be independent in their decision-making in future. Most of these businesses aspired to be big firms in the future. However, not all businesses will be successful; two of the businesses interviewed showed early signs of that because of a lack of management and ineffective leadership. This shows that leadership has an influence on the behaviour of the staff and also on the performance of the business.

5.5 Summary

In conclusion, this study explored the entrepreneurial leadership style adopted by high-technology SMEs in Pakistan, focusing on how the entrepreneurial leadership style facilitates innovation. While the leaders demonstrated some awareness of various leadership styles, including autocratic, participative, and delegative approaches, they generally lacked deep knowledge of academic leadership theories. The study revealed that leadership in these SMEs is project-oriented, with a strong focus on client satisfaction and operational outcomes rather than strategic innovation.

The findings highlighted that SMEs in Pakistan are primarily engaged in exploitative innovation, with limited resources constraining their ability to pursue radical or exploratory innovation. Although some leaders encouraged creativity and innovative problem-solving within existing projects, there was no consistent evidence of a formalised innovation process or a focus on developing new products.

The research also pointed to the challenges faced by SMEs in Pakistan, particularly the lack of infrastructure and resources, which often forced them to operate as subcontractors. This

dependency limits their freedom to explore more innovative avenues. Despite these constraints, businesses displayed entrepreneurial leadership behaviours, such as fostering trust, transparency, and collaboration.

Entrepreneurial leadership is evident in the SMEs studied. The unique business environment of Pakistan, characterised by resource limitations and project-based operations, has led to a more incremental approach to innovation, with a focus on short-term survival rather than long-term growth through radical innovation. Future efforts should aim to enhance leadership capabilities and provide SMEs with the necessary resources and freedom to engage in more exploratory innovation, which could drive significant business growth in the long term.

This study provides a comprehensive view of how entrepreneurial leadership influences innovation within Pakistan's high-technology SMEs. The integration of empathy, collaboration, and encouragement within the ENTRELEAD framework suggests that entrepreneurial leadership extends beyond risk-taking and vision to include relational and supportive behaviours that nurture an inclusive and innovative organisational culture. These insights contribute to a richer understanding of entrepreneurial leadership and offer practical guidance for leaders seeking to foster innovation in similar contexts.

Chapter Six
Conclusion

6.1 Introduction

This chapter will present the findings as to how leaders can influence their staff, including managers, to be more innovative. In achieving this, this qualitative study has identified the theoretical and practical implications of how entrepreneurial leadership can facilitate and enable innovative behaviour to exist in a high-technology SME business. Reflecting this, the chapter using Renko et al.'s (2015) ENTRELEAD model will present the main outcomes of the study by critically reviewing the influence of leadership behaviours before contextualising how entrepreneurial leadership can nurture creativity. The chapter will then proceed to address the methodological implications and limitations before suggesting areas and themes for future research. Finally, the chapter will present a reflection on the study, which has been a professional and personal journey.

6.2 Overview of the outcome of the study

The research methodology employed in this study involved using a qualitative approach for data collection and analysis. At the commencement of the study, a comprehensive review of the existing literature was conducted, which then informed the development of the research questions to enable the study to achieve the aim of the study*, to investigate the entrepreneurial leadership style adopted in Pakistan's high-technology SME sector to facilitate innovative practice, through using Renko et al.'s (2015) ENTRELEAD model*, and the four research objectives which are presented below:

1. To critically indicate the current theoretical debate on how entrepreneurial leadership style can promote innovative practices.
2. To critically analyse from the empirical qualitative data that leaders in the Pakistani high technology SMEs used entrepreneurial leadership style to facilitate innovative practices.
3. To critically evaluate from the findings as to the characteristics and attributes as to promote and enable innovative practice.
4. To develop a theoretical entrepreneurial leadership framework based on Renko et al.'s (2015) ENTRELEAD model.

The research questions, which were informed by the existing literature were:

1. How do entrepreneurial leaders of Pakistani high-technology SMEs perceive their influence in promoting a creative working environment to facilitate innovation?
2. What do managers of Pakistani high-technology SMEs believe that leaders need to do to enhance innovative behaviour?
3. What leadership style is employed by leaders of Pakistani high-technology SMEs to promote an innovative work environment?

The findings of this study offer a nuanced perspective on entrepreneurial leadership, presenting it as a multifaceted behavioural spectrum enacted by leaders who not only embody entrepreneurial traits but also actively promote and enable innovative and creative thinking and behaviour to exist within the business. Furthermore, the findings of the study indicated how these leaders exerted influence and empowered their managers to adopt similar innovative behaviour, thereby contributing to the realisation of shared visions of success. To understand this, this study interviewed 20 CEOs or leaders and their associated managers, using Renko et al.'s (2015) ENTRELEAD model as a framework. In using the ENTRELEAD model, the research identified three new and emerging themes, which will be presented in greater detail below as to the study's contribution: *promotes empathy*, *enables collaboration,* and *innovative behaviour and attitude through encouragement*, which were related to entrepreneurial leadership within the Pakistani high-technology SMEs sector.

To address the **research objective one**: *to critically indicate the current theoretical debate on how entrepreneurial leadership style can promote innovative practices*, the theoretical debate discussed the intersection of entrepreneurial leadership and its role in innovative practices, highlighting both theoretical foundations and practical applications. It critically explored the overlaps and distinctions between transformational leadership and entrepreneurial leadership and focused on how entrepreneurial leadership influence innovation, growth, and leadership behaviours, particularly within SMEs.

The studies of Gupta et al. (2004) and Renko et al. (2015) indicated that there were conceptual similarities between entrepreneurial and transformational leadership, with both studies emphasising innovation and influence over the followers. Entrepreneurial leadership, however, is more directly aligned with opportunity recognition, innovation, and risk-taking behaviours (Gupta et al., 2004; Renko et al., 2015). Unlike transformational leadership, entrepreneurial leadership is focused towards driving economic activity by leading teams in a dynamic and often volatile business environment (Bagheri & Harrison, 2020). Therefore, entrepreneurial

leadership is particularly crucial in the context of high-technology SMEs, where leaders often perform both operational and strategic roles. The personal attributes of the leader, such as their risk tolerance and innovation drive, can significantly influence business success and sustainability (Andersson & Tell, 2009). Harrison et al. (2020) indicated that entrepreneurial leadership can encourage an environment conducive to incremental innovation, particularly in resource-limited settings like SMEs. The study of Chen (2007) elaborated on how entrepreneurial leadership can foster a collaborative and innovative environment, which includes communication. The study's findings also revealed that entrepreneurial leaders foster creative problem-solving and innovation among employees by promoting open communication, transparency, and intellectual stimulation, which aligns with strategic business objectives (Sanchez, 2012; Renko et al., 2015). Furthermore, with a collaborative culture, this can play a pivotal role in ensuring that teams can work together toward being innovative and creative (Mubarak et al., 2018). The studies of Bagheri (2017), Akbari et al. (2020), and Li et al. (2020) have highlighted that entrepreneurial leadership as being a key driver for innovation, particularly in fostering creativity, risk-taking, and encouraging the generation of new ideas. However, while these studies underline the positive influence of entrepreneurial leadership on being innovative, Akbari et al. (2020) and Li et al. (2020) have also indicated the gap in understanding of how entrepreneurial leaders manage the associated risks of being innovative and how they balance the exploration of new ideas while ensuring that the business remains sustainable. The findings of this study indicated that businesses could remain sustainable by applying risk-mitigating strategies while also enabling calculated risk-taking to occur.

Another critical gap in existing understanding was how context, such as geography and industry, influences the effectiveness of entrepreneurial leadership. Studies by Currie et al. (2008) and Baig et al. (2021) highlighted that much of the research on entrepreneurial leadership has been conducted in developed economies, particularly in the U.S. and Europe, where the business environment, infrastructure, and cultural attitudes towards entrepreneurship differ significantly from those in developing nations. Furthermore, most of these studies have been predominantly quantitative in nature, therefore not providing any new theoretical insight into how entrepreneurial leadership operates, particularly in an emerging economy like Pakistan (Shah, 2018). For example, in countries like Pakistan, SMEs face challenges such as limited access to capital, outdated technology, and restrictive regulatory environments (Najeeb, 2021). These constraints can limit the extent to which entrepreneurial leaders can foster innovation effectively. This outcome indicated that the effectiveness of entrepreneurial

leadership in high-technology SMEs remains unclear due to the constraints within the business, which may prevent leaders from fully leveraging their entrepreneurial skills, such as promoting creativity or enabling risk-taking to occur. While entrepreneurial leaders may possess the vision and drive to lead innovation, external challenges in developing countries, particularly those faced by SMEs, can create significant barriers that could limit their ability to implement innovative solutions. This is particularly the case in the high-technology sector, where rapid technological advancements make agile decision-making critical when seeking and maintaining a competitive advantage (Najeeb, 2021; Rahman et al., 2021).

From above, it is possible to surmise that entrepreneurial leadership can promote innovative practices in high-technology SMEs by fostering creativity and enabling calculated risk-taking to happen, while also facilitating collaborative activities.

To address the **second research objective**: *to critically analyse from the empirical qualitative data that leaders in the Pakistan high technology SMEs used entrepreneurial leadership style to facilitate innovative practice*, the analysis of the qualitative data indicated that the leaders facilitated innovative practices by fostering an environment of trust, transparency, and staff engagement. The analysis highlighted that managers perceive their leaders as role models who inspire innovation and 'out-of-the-box' thinking, reinforced by a performance-based reward system (Jyoti & Dev, 2015). The study identified that entrepreneurial leaders inspire creativity by acting as role models, offering guidance, and creating a reward-driven environment. This approach aligns with the leadership theory of Amabile (1996), which emphasises the importance of intrinsic motivation and problem-solving challenges to drive innovation (Mubarak et al., 2018). Transparency was crucial in building trust among staff, which in turn fostered autonomy and innovative behaviour. Entrepreneurial leadership can encourage open communication and provide managers with the autonomy to explore their capabilities through innovative projects, echoing theoretical models that link trust and innovation with leadership (Jyoti & Dev, 2015). This approach aligns with the leadership theories that connect transparency and trust to enhanced innovative behaviours. For instance, Bass and Avolio (1994) emphasised that transformational leadership, a leadership style closely linked with entrepreneurial leadership, which cultivates trust through transparency, which can lead to greater employee autonomy.

To emerge from the study was also the importance of rewards. The theme of rewards and reward systems as a concept can potentially enhance performance and innovative activities, through recognising and acknowledging the contribution of individuals. In acknowledging the importance of rewards, this study concurs with Jyoti and Dev (2015) and Mubarak et al. (2018) who proposed that when leaders implement a merit-based reward system, the incentive not only increases employee creativity but also strengthens trust within the organisation. When employees, or in the case of this study, managers, understand that their efforts will be recognised and rewarded fairly based on merit, there is a perception of being valued. This not only increases their engagement and morale but can also lead to a more innovative work culture. In such a rewarding environment, employees are likely to take the initiative and propose creative solutions, knowing that their contributions will be appreciated and potentially rewarded. The concept of the reward system does align with the transactional leadership theory proposed by Bass (1990) which said that the reward system plays a central role in shaping the relationship between the leader and the follower, while also emphasising the important role of transparency, empowerment, and recognition in cultivating innovation and creativity within the business., which was also found in this research project based on SMEs in Pakistan.

This study has demonstrated that entrepreneurial leaders can play a key role in promoting innovation within organisations by fostering transparency, building trust, and implementing reward systems. Entrepreneurial leaders can empower employees by creating an environment where they feel valued and motivated to contribute creatively to the organisation's success. By enabling and facilitating transparency and trust with the business, this can provide the foundations for open communication, and this can encourage employees to share innovative ideas without the fear of judgment. Research by Jyoti and Dev (2015) and Mubarak et al. (2018) supported this, showing that when leaders recognise and reward employees' creative efforts, it not only increases innovation but also strengthens trust within the organisation. This alignment between rewards and innovation motivates employees to contribute to organisational goals while promoting a culture of continuous improvement.

To address the **third research objective**: *To critically evaluate from the findings as to the characteristics and attributes as to promote and enable innovative practice,* there was a range of behavioural leadership traits related to entrepreneurs which was identified in the original work of Renko et al. (2015), which included the importance of being a role model and the influence of key behaviours and actions which the entrepreneurial leader may possess and display (Renko et al., 2015). To emerged from the study was the significance of empowerment,

and how the concept can foster an entrepreneurial mindset amongst managers and employees. In reaching this conclusion, the study identified that entrepreneurial leaders could exert influence by empowering their managers and staff. In contextualising this, Gupta et al. (2004) proposed that entrepreneurial traits tend to be dynamic but are also dependent on their situation. In reaching this conclusion, the study identified three new enabling behavioural traits associated with entrepreneurial behaviour, which led to the emergence of a revised theory of Renko et al.'s (2015) ENTRELEAD model, to represent the entrepreneurial leadership style adopted in the Pakistani high-technology SME sector. Table 6.1 below shows the attributes of these Pakistani high-technology SMEs leaders, as to how they empowered their managers and staff to be more innovative in the workplace.

Entrepreneurial leadership behaviour	**Study's findings**	**Empowering attribute**
[1] Promotes empathy	Improving well-being, empowering, and being a role model. Enhancement of effectiveness by inspiring diversity and inclusion, increasing employee engagement and retention, by creating a culture of responsibility, care, and innovation.	[4] Value employees [5] Empower employees [6] Rewards employees
[2] Enabling collaboration	Building interpersonal relationships and cross-functional collaborations. Facilitate productive relationships between employees by listening, understanding their staff, and having an open-minded attitude.	[7] Build trust [8] Encourage honesty [9] Encourage communication
[3] Innovative behaviour and attitude through encouragement	Introduce and instigate new ideas, products, processes, and procedures and being a role model to encourage innovativeness and creativity as employee behaviour.	[10] Enable R&D [11] Enable intellectual agility [12] Encourage innovative behaviour

Table 6.1: Entrepreneurial leadership empowering behaviours. Source: Author

Table 6.1 presents a summary of the emergent entrepreneurial leadership behaviours identified in this study that extend beyond those articulated in Renko et al.'s (2015) original

ENTRELEAD model. While the ENTRELEAD scale provided a foundational framework comprising eight behavioural attributes of entrepreneurial leadership, the findings of this study revealed three additional dimensions, promoting empathy, enabling collaboration, and encouraging innovative behaviour and attitude, that were consistently evident across the qualitative data. While these emergent behaviours do not replace Renko et al.'s (2015) original factors, they rather complement and extend them by reflecting the relational and contextual leadership dynamics specific to high-technology SMEs in Pakistan. It is important to clarify that Table 6.1 is not a replication of Renko et al.'s (2015) model but rather a representation of the extended behaviours discovered through inductive thematic analysis, underscoring the evolving and context-sensitive nature of entrepreneurial leadership in practice.

To address the **fourth research objective:** *to develop a theoretical entrepreneurial leadership framework based on Renko et al.'s (2015) ENTRELEAD model*, Thompson-Whiteside et al. (2017) proposed that CEOs often cultivate their unique entrepreneurial behaviours to foster innovation within their organisations. Through conducting the interviews, it became evident that leaders primarily exhibited participative, delegative, democratic, and collaborative leadership styles. Although leaders actively contributed to innovation, the focus was towards exploitative innovation, with less emphasis on explorative innovation. This preference may have stemmed from the project-oriented nature of the businesses in the study. The leaders interviewed encountered constraints when attempting to pursue long-term projects that are beneficial to the business. Despite these challenges, leaders demonstrated sublimely in their practices of incremental innovation, although they did not say it explicitly (Zacher & Rosing, 2015).

The participant leaders emphasised that they do not adhere to a specific leadership style and prefer not to micro-manage. Instead, the entrepreneurs emphasised a preference towards a leadership approach which was adaptable and varied based on the unique requirements of each project and situation. However, all the leaders agreed on the importance of entrepreneurial leadership but acknowledged that they employed different behavioural traits when managing business operations. The study's findings indicated that the leaders demonstrated a diverse range of leadership styles based on specific needs or requirements. Figure 6.1 below presents the emergent revised theory of entrepreneurial leadership amongst Pakistani high-technology SMEs in diagrammatic form. Each attribute of the diagram is numbered and shown in Table 6.1.

Contribution to theory

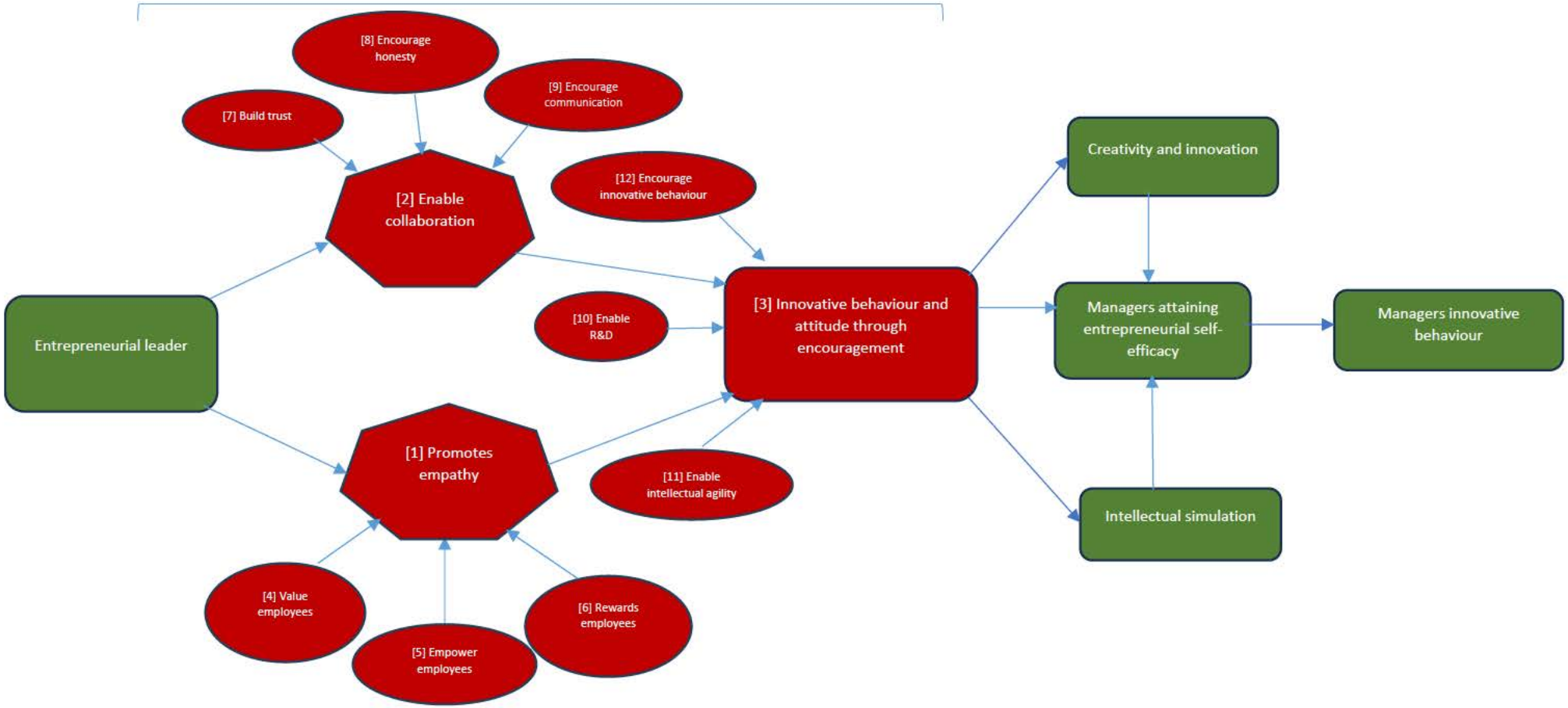


Figure 6.1: Revised conceptual framework of entrepreneurial leadership. Source: Author

The above figure, Figure 6.1, provides a revised conceptual framework of entrepreneurial leadership, highlighting how entrepreneurial leadership can foster innovative behaviour within an organisation. The newly emergent concepts are highlighted in red, whereas the former ideas are presented in green. The following sections are directly informed by and illustrate the themes outlined in Figure 6.1. Each theme represented has been developed from the findings and represents an extension of the ENTRELEAD model as applied within the context of high-technology SMEs in Pakistan. This diagram serves to visualise the core themes and behavioural attributes that underpin the adapted framework, providing clearer insight into the relational and empowering dimensions identified through this study. Figure 6.1 shows the study's newly emerged three core leadership behaviours: promotes empathy, enables collaboration, and innovative behaviour and attitude through encouragement, which will be presented in greater depth below:

[1] Promotes empathy

The model shows empathy as the core aspect of entrepreneurial leadership. Empathy is a driver for fostering strong interpersonal relationships and enables employees to feel valued, empowered, and rewarded. The leadership recognises the personal and professional needs of their employees, which increases engagement and retention. Leaders' empathic behaviour helps create an environment where employees feel motivated and supported, leading to greater individual responsibility and collective innovation (Breugst et al., 2012). Empathy fosters an environment where employees feel safe to share ideas and take calculated risks without fear of failure. This emphatic behaviour of leaders increases creative problem-solving and incremental innovations, particularly in high-technology and knowledge-driven industries.

Empowering attributes associated with promoting empathy

Under the heading of promoting empathy, is *value employees* [4], which represents that when the employee feels valued, they are more likely to be motivated and engaged in their work. When leaders recognise and appreciate their contributions, employees develop a stronger sense of belonging and commitment to the organisation. This positive reinforcement fosters intrinsic motivation, driving them to go beyond their basic responsibilities and contribute creatively to achieving organisational goals. Feeling valued can also enhance morale and encourage employees to take the initiative in exploring new ideas, leading to increased innovation as they actively seek ways to improve processes and drive success within the organisation.

The next attribute under promoting empathy is *empowering employees* [5]. The concept represents when employees are empowered to work autonomously, which can be achieved by cultivating a sense of ownership and accountability. When employees and managers have the freedom to make decisions and manage their work, the individual can become more personally invested in the results. This empowerment of the individual can enhance their self-assurance and stimulate the person to think creatively, thereby becoming more inclined to experiment, take calculated risks, and devise creative solutions to problems without feeling restricted by strict guidelines or excessive supervision. By enabling this sense of autonomy, the employees, or in the case of this study, the managers, can have the freedom to explore new concepts while adopting an innovative mindset.

Next under the category of empathy is *rewarding employees* [6]. This theme is related to the reward system, which is offered in the business. The concept of rewarding employees is linked to generating innovative outputs, which plays a crucial role in incentivising creativity and performance by recognising the individual and potentially offering tangible benefits. These rewards can be a powerful motivator, encouraging employees or managers to develop innovative ideas which can be rewarded through financial incentives, offering promotional opportunities, or by recognising the individual's contribution. This reward-based assurance can create a strong impetus for employees to think creatively by actively pursuing creative solutions. These rewards not only serve to acknowledge the individual's achievements but also play a pivotal role in nurturing a culture of innovation within the organisation. By the leadership signalling that the organisation does value and supports creativity, these reward systems can foster an environment where the workforce feels empowered to explore unconventional ideas and approaches. This, in turn, can lead to an increase in overall performance and a continuous drive for improvement.

[2] Enable collaboration

The next core theme in the figure is, enable collaboration. By promoting empathy, the leader can create a collaborative environment. Collaboration is enabled through trust-building, open communication, and fostering honesty, which is essential for encouraging innovative ideas. Leaders can encourage their employees to have open discussions and come up with creative solutions, which increases the organisation's ability to innovate. Bringing together ideas from different departments of the company can lead to new and innovative ideas (Ensley et al., 2006). A key part of this process is trust. When leaders are transparent and clear in their

decisions, it can build trust among employees, which in turn promotes creativity and new ideas. This theme supports transformational leadership, a theory that emphasises the importance of trust and teamwork as crucial elements for driving innovation in organisations (Bass, 1999).

Empowering attributes associated with enable collaboration

Related to enable collaboration is *building trust* [7]. This attribute of trust is critical for successful collaboration within an organisation. When employees have confidence in their leaders, this often provides a sense of security and trust, which can enable the creation of an open environment to share ideas, thoughts and encourage collaboration. This aspect of trust can, however diminish if there is a perception of fear of being judged or negative consequences in the event of failure, therefore, open and transparent communication with the teams is essential to establish, nurture and maintain.

Next under the heading of enable collaboration, is *encourage honesty* [8]. Honesty is a crucial trait in effective leadership, which requires an environment of transparency and trust to be created. When leaders are honest and open with their employees, this can foster a culture where team members feel valued as to their contribution. This culture can include openness and transparency through the establishment and maintenance of strong interpersonal relationships, where trust and mutual respect between the leader and their team exist. In an open and transparent environment, employees are more likely to engage in candid and honest communication, knowing that their opinions are valued. This open communication can lead to enhanced collaboration and problem-solving within the organisation.

Closely aligned to encouraging honesty is *encouraging communication* [9]. This attribute involves the exchange of information and ideas, which is essential for fostering a culture of innovation within a team. Effective communication not only enables individuals to introduce and then share new concepts but also creates an environment for receiving valuable feedback and presenting different perspectives or alternatives. This open exchange of ideas not only helps in refining and enhancing the initial concepts but also contributes to the development of more comprehensive and innovative solutions. Ultimately, this collaborative approach to communication can nurture creativity.

[3] Innovative behaviour and attitude through encouragement

From the figure above, the next is innovative behaviour and attitude through encouragement. Entrepreneurial leaders can play a pivotal role in shaping an innovation-driven culture by

encouraging intellectual agility, fostering research and development, and providing consistent feedback and rewards for innovative behaviours. This approach can cultivate a culture where employees feel empowered to use their creativity and take initiative to support the company's objectives. Giving employees the confidence and freedom to explore new ideas increases their motivation and encourages them to contribute to innovative solutions that align with the company's goals, ultimately driving organisational growth and success. Encouraging innovative behaviour is aligned with self-efficacy, which posits that individuals are more likely to take on challenges when they believe in their abilities (Bandura, 1997). Entrepreneurial leaders can encourage this self-efficacy by providing their employees with the resources, freedom, and support they need to explore new ideas and execute innovative projects.

Empowering attributes associated with innovative behaviour and attitude through encouragement

Within the category of innovative behaviour and attitude through encouragement is *enabling R&D* [10]. Enabling R&D or research development is essential for organisations, particularly in the IT sector, to remain competitive in rapidly changing markets. Where entrepreneurial leaders prioritise R&D with dedicated resources, this can indicate to the organisation the commitment to innovate. By emphasising R&D, the leader is committing the organisation to exploring new technologies, generating innovative ideas, and developing creative solutions to complex problems. This strategic focus on R&D not only cultivates a more innovative workforce but can also enable the organisation to have the skill sets to adapt to changing market conditions while continuing to drive innovation.

The next attribute associated with the innovative behaviour and attitude through encouragement is *enabling intellectual agility* [11]. The attribute of intellectual agility is a cognitive capability associated with the individual’s ability to be receptive to change and having the capacity to constantly adjust based on new information and circumstances. The attribute encompasses the ability for the individual to think critically, reflect and learn from past experiences, then adapt and change when faced with new and future challenges or opportunities. Leaders who encourage this quality within their teams create a supportive environment where employees feel empowered to explore new ideas and approaches. This openness to change fosters innovation, as team members are more willing to experiment, take risks, and respond creatively to challenges, ultimately enhancing the organisation's capacity for growth and improvement.

Finally, related to innovative behaviour and attitude through encouragement is *encouraging innovative behaviour* [12]. This category represents how leaders actively engage in innovative practices, which can serve as a powerful role model for their teams. By consistently demonstrating creativity and out-of-the-box thinking, leaders can inspire their employees to embrace similar approaches in their work. This can lead to employees having the confidence to explore new concepts and ideas without the fear of being judged and having the confidence to take calculated risks, if and when needed.

[4] Managers attaining entrepreneurial self-efficacy

The fourth aspect of the figure is managers attaining entrepreneurial self-efficacy. As managers and team members gained confidence in their ability to innovate, this self-efficacy, which is the belief in one's ability to succeed, led managers to adopt more innovative behaviours in their roles. As managers gained confidence in their entrepreneurial capabilities, they became more willing to explore new ideas, take risks, and implement creative solutions. This increased sense of self-assurance encouraged them to lead by example, fostering a culture of innovation within their teams. Consequently, their increased innovative behaviour not only benefited their own performance but also inspired their team members to embrace creativity and initiative, further driving the organisation's overall innovation. Self-efficacy plays a crucial role in entrepreneurial leadership as it equips employees with the confidence to pursue innovative projects and implement changes. Bandura's (1997) self-efficacy theory suggested that when individuals believe they can execute a task, they are more likely to be persistent and resilient in the face of challenges. Entrepreneurial leaders can cultivate this self-efficacy by providing guidance, resources, and a supportive environment, which can enable and facilitate managers to become innovative.

[5] Creativity and innovation

With the next criteria in the figure, creativity and innovation, this study contends that encouragement from the entrepreneurial leader can result in increased creativity and innovation within the team, leading to more intellectual stimulation and novel ideas. Entrepreneurial leaders can foster an environment where creativity is encouraged, driving innovation throughout the organisation. This leadership style promotes risk-taking and open-mindedness, and supports initiatives for novel ideas and solutions by providing resources. These leadership characteristics indicated in this study are supported by Amabile (1997), who highlighted that entrepreneurial leaders actively cultivate creativity by providing autonomy and resources,

which are crucial for employees to experiment and to think differently. Therefore, entrepreneurial leaders can play a vital role in fostering a work environment where employees feel empowered to question existing practices. This empowerment leads to a culture of continuous innovation, which is essential for maintaining a competitive edge.

[6] Intellectual stimulation

The theme of intellectual stimulation represents how the team is continuously stimulated intellectually, resulting in more creative solutions and innovations being considered, which can contribute to the overall success of the organisation. Entrepreneurial leaders who challenge their teams to think critically and solve complex problems can stimulate intellectual curiosity and innovation. This type of leadership is closely aligned with transformational leadership, where leaders encourage creativity by questioning assumptions, reframing problems, and seeking ideas from others (Bass, 1985). Intellectual stimulation encourages managers to seek out new perspectives and challenge existing norms, motivating them to continuously improve processes. This approach is essential for cultivating a culture of innovation, as it promotes open-mindedness and creativity. When managers are intellectually stimulated, they are more likely to experiment with fresh ideas and solutions, leading to enhanced efficiency and innovation within the organisation. This environment not only supports individual growth but also drives the overall success of the organisation.

In summary, entrepreneurial leaders can play a critical role in fostering innovation within organisations by creating an environment that supports the well-being of employees, builds trust, and encourages open communication. The empowering attributes in this framework suggest that successful leaders value, empower, and reward their employees while promoting collaboration and intellectual agility. This approach not only enhances organisational creativity but can also strengthen the high-technology SME's capacity for innovation.

6.3 Contribution to knowledge

This study adds to the body of knowledge that can be beneficial for academic studies, practitioners who work in or invest in SMEs, and decision-makers in government agencies aiming to promote the expansion of the creative industries. Although SMEs appear to have received very little attention (Rose, Jones & Furneaux, 2016), innovation leadership research is still in its infancy when it comes to SMEs, even though both leadership and innovation have a wealth of literature. A few studies of Pakistani SMEs have been conducted, but these studies do not address managers' perceptions of their leaders' leadership styles (Mubarak et al., 2018).

In a country such as Pakistan, SMEs play a vital role in the economy for wealth and job creation. SMEs also aid or assist the government in developing an economic strategy. It will be useful for practitioners, investors, and policymakers to understand how innovation emerges from these businesses in a way that can benefit their endeavours. To the best of my knowledge, it is the first study of its type to examine how entrepreneurial leaders affect their managers' capacity for innovation in high-technology SMEs in Pakistan, and how they can encourage the staff members to be more innovative in their thinking process. Furthermore, academic experts will find it fascinating to contrast the experiences of Pakistani SMEs with entrepreneurial leadership in other cultures and draw parallels.

Little attention has been given to the issue of SME hurdles and restraints in developing countries, despite the fragmentation of the literature on the influence of entrepreneurial leadership on innovation in SMEs. A conceptual framework for entrepreneurial leadership enhancing innovation has been developed based on entrepreneurial leadership and emergent themes within the context of a trajectory that is influenced by the businesses based on the examination of the businesses involved in this research.

6.4 Theoretical Implications

Studies conducted by Freeman and Siegfried (2015) and Leitch et al. (2013), which focused on the influence of entrepreneurial leadership style to enhance innovation in SMEs, have provided a rich insight into the attributes and characteristics needed for a leader. These studies, while arguably contributing new knowledge on the topic, have however lacked an understanding of the behavioural influence an entrepreneurial leader can have on their followers. At the same time, existing methodologies and constructs like the ENTRELEAD model have attempted to provide the means to conceptualise the characteristics and behaviours unique to entrepreneurial leadership but have arguably lacked a comprehensive representation of an entrepreneurial leader’s behavioural traits when enhancing innovation beyond being an influencer and role model. In Chapter 2, the Literature Review, the research gaps were identified, and related research questions were subsequently developed. The literature review provided a deep analysis of the current debate related to the concept of entrepreneurial leadership by drawing on two core leadership theories, that of Gupta et al.’s (2004) model of entrepreneurial leadership and Renko et al. (2015) who introduced the ENTRELEAD model to ascertain entrepreneurial leadership skills. However, these theories have identified weaknesses as to how to assess and determine the required attributes for entrepreneurial leadership. Unlike the established concepts of Gupta et al.’s (2004) model of entrepreneurial leadership and Renko et

al.'s (2015) ENTRELEAD model, these constructs have arguably failed to focus on the critical themes, including risk-taking, innovation and opportunity recognition (Bagheri & Harrison, 2020). To address these omissions, this study has contributed to closing the existing knowledge and understanding by providing several new insights from a Pakistani high-technology SME perspective.

The findings have addressed certain weaknesses of Renko et al. (2015) ENTRELEAD model by providing a deeper understanding of the entrepreneurial leadership behaviour adopted by leaders in high-technology SMEs to promote innovation. The revised entrepreneurial leadership framework shows that entrepreneurial leaders not just enable innovation but actively facilitate an environment in the company to encourage innovation by focusing on practical aspects, such as transparency, building trust, and implementing reward systems. This revised entrepreneurial leadership framework can enable the establishment of a process in the company to embed innovation as a core organisational capability, thereby broadening the theoretical understanding of the ENTRELEAD model on how entrepreneurial leadership can contribute to a company's innovative culture.

The revised entrepreneurial leadership framework offers a more nuanced understanding of the behavioural dynamics that entrepreneurial leaders have on their employees, expanding beyond the traditional concepts of simply being role models or influencers. This framework emphasises the essential trait of empowerment that entrepreneurial leaders exhibit, which plays a crucial role in shaping employees' attitudes and behaviours to foster an innovative culture within the organisation. The empowerment attribute extends beyond simple delegation, as it encompasses a range of strategic behaviours in which leaders can actively promote, including empathy, enabling collaboration, and encouraging innovative thinking within their team. By creating an environment of support and encouragement, leaders empower employees to take initiative, share their ideas, and engage in creative problem-solving, thereby cultivating a vibrant, innovative culture.

This extension of the entrepreneurial leadership framework provides a new insight into the strategic approaches available for entrepreneurial leaders as to how to effectively exert their influence within the business. The revised leadership framework illustrates how their leadership style emphasises collaboration and support, which can have a profound and multifaceted influence on managers' and employees' behaviour and attitudes. By adopting this

approach, leaders can cultivate stronger team dynamics, fostering an environment where individuals feel valued and motivated.

The entrepreneurial leadership framework outlined in this study both enhances and expands upon the entrepreneurial leadership model proposed by Renko et al. (2015). The concept places a stronger emphasis on specific interpersonal dynamics such as empathy, collaboration, and encouragement. While the ENTRELEAD model developed by Renko et al. (2015) identified entrepreneurial leadership to motivate and influence employees toward innovation, with a focus on proactive behaviour, risk-taking, and a visionary approach, in contrast, the framework presented in this study has illustrated how entrepreneurial leaders can foster an innovation-oriented culture through relational and supportive practices. While Renko et al. (2015) acknowledged the crucial role of entrepreneurial leaders in inspiring employees to innovate, this study's framework introduces the concept of *empathy* as a key mechanism that promotes innovation by creating a safe environment for employees. By prioritising empathy through practices such as valuing, empowering, and rewarding team members, the framework posits that leaders can cultivate a supportive workplace where employees feel secure enough to take risks and share new ideas.

Renko et al. (2015) further highlighted that entrepreneurial leaders effectively mobilise teams and drive collective innovation through their vision and proactive behaviours. This framework proposed in this study can enhance that perspective by illustrating how leaders can facilitate collaboration by cultivating trust, promoting honesty, and encouraging open communication. This collaborative approach aligns with the entrepreneurial leadership model of Renko et al. (2015) by emphasising that leaders influence team dynamics, while also elaborating on specific interpersonal behaviours that foster a high-trust environment. In such a collaborative and high-trust environment, employees feel empowered to share ideas and collaborate on innovative solutions. This approach can enrich the entrepreneurial leadership model by offering actionable strategies for fostering a collaborative and trust-driven culture.

In Renko et al.'s (2015) ENTRELEAD model, entrepreneurial leaders are characterised as individuals who inspire confidence and inventiveness among their employees. The framework proposed in this study expands on this idea by identifying encouragement as a direct means for enhancing both employees' and managers' entrepreneurial self-efficacy. By offering intellectual stimulation and positive reinforcement, entrepreneurial leaders can foster a sense of self-confidence in team members, which is pivotal for innovative behaviour. This approach

addresses a gap in the existing entrepreneurial leadership model by highlighting encouragement, beyond just visionary influence, as a crucial element in strengthening employees' belief in their own innovative capabilities. Renko et al. (2015) conceptualised entrepreneurial leadership primarily through the traits and behaviours exhibited by leaders, highlighting characteristics such as risk-taking, proactive decision-making, and a forward-thinking mindset. However, the framework put forward in this study seeks to expand upon this traditional view by placing a greater emphasis on the relational and cultural dimensions that shape entrepreneurial leadership. This revised model posits that cultivating an innovative and friendly organisational culture relies not solely on the personal attributes of leaders but also on their capacity to foster an environment that prioritises support, collaboration, and open communication. Central to this proposed framework are the concepts of empathy and encouragement, which are identified as essential attributes through which leaders can motivate their teams.

The recognition that relational dynamics significantly contribute to entrepreneurial success and team innovation has gained traction in recent academic discourse, as evidenced by researchers like Anderson et al. (2020). Within this context, Renko et al.'s (2015) ENTRELEAD model underscored the ability of entrepreneurial leaders to influence their team members by setting a compelling vision for innovation. Nonetheless, the framework proposed in this study enhances this perspective by providing a more nuanced understanding of how leaders can actively promote innovation. The framework highlights the importance of leaders not just articulating a vision, but also engaging in everyday interactions that prioritise empathy, facilitate collaboration, and strengthen team members' self-efficacy. By elaborating on these attributes, this framework offers a broader lens of mechanisms through which leaders' supportive behaviours can translate into sustained innovation. Ultimately, this enriched understanding aims to deepen the application of the ENTRELEAD model, illustrating how the daily interactions between leaders and their teams play a pivotal role in cultivating a culture that fosters continuous innovation and collaborative success within organisations.

In summary, the entrepreneurial leadership framework presented in this study enhances the knowledge presented by Renko et al.'s (2015) study by integrating relational and supportive practices that foster an innovation-oriented culture. By detailing attributes such as empathy, collaboration, and encouragement, it extends the ENTRELEAD model beyond individual leader traits, offering a more holistic view of entrepreneurial leadership. This framework underscores that leaders inspire innovation not only by setting a vision but also by building an

environment of trust, empathy, and self-efficacy, thereby providing valuable insights into the interpersonal dynamics essential for entrepreneurial leadership. Furthermore, the development of the emergent entrepreneurial leadership framework introduced in this study opens new pathways for future research. It encourages scholars to investigate various dimensions of leadership behaviours and their influence on entrepreneurship, ultimately broadening the discourse around effective leadership practices in entrepreneurial settings.

6.5 Practical Implications

The findings of this study have generated several practical implications for entrepreneurs, business leaders, and professionals who provide consultancy services to high-technology SMEs in Pakistan. Using the Renko et al. (2015) ENTRELEAD model, the research has identified eight predefined leadership behavioural traits, together with three new emergent themes: promotes empathy, enables collaboration, and innovative behaviour and attitude through encouragement, all of which are relevant to entrepreneurial leadership. These new behavioural traits significantly enhance the ENTRELEAD model and offer practical strategies for leaders who are focused on building innovative teams. These strategies include focusing on empathy-driven leadership, working collaboratively, and being focused on innovation.

These identified behavioural traits have highlighted the importance of entrepreneurial leadership, which aligns with Renko et al.'s (2015) original ENTRELEAD model but also indicates the unique leadership traits relevant to Pakistan’s high-technology SME leaders. The traits suggest that entrepreneurial leadership can play a significant role in driving success for businesses by the leader adopting a strategic approach towards entrepreneurship. This outcome acknowledges the significance of entrepreneurial leadership and presents an opportunity for practitioners and leaders in high-technology SMEs to align their strategic approach according to the style of these individual leaders. By embracing an innovative entrepreneurial leadership style, leaders in these companies can address the unique challenges and dynamic nature of the high-technology sector. This can include providing initiatives such as encouraging innovation, adaptability, and proactive decision-making to enable the business to attain a strategic advantage.

The study has highlighted that business leaders can play a pivotal role in fostering an environment in the company to produce innovative products, within challenging economic landscapes by adopting the entrepreneurial behavioural traits advocated in the Renko et al. (2015) ENTRELEAD model. While traits such as visionary, passionate, risk-taking, creative,

and innovative behaviour were identified in the ENTRELEAD model as being critical, there were other attributes and characteristics which had been omitted, as identified in this study. Of the leadership traits found, these included the ability to empower followers to actively contribute to the future of the business, whereby serving as a role model to promote an innovative mindset, attitude and behaviour.

These empowering attributes of revised entrepreneurial leadership can provide a framework for leaders in high-technology SMEs seeking to instil an entrepreneurial mindset and attitude within their employees. This approach shifts the focus to enable employees to identify and seize opportunities, encourage creativity, self-organisation, and innovation. This new proposed entrepreneurial leadership framework provides a structured approach to understand how leaders can influence innovation, collaboration, and employee engagement in high-technology SMEs. This can include adopting specific leadership traits, such as vision, risk-taking, and adaptability, which are essential in high-technology SMEs because of the rapid change and competition in the market. Table 6.2 below summarises the practical implications of the key concepts based on the revised entrepreneurial leadership framework as presented in this study.

Traits	**Practical implication**
Entrepreneurial leadership	Sets the vision for a culture of innovation, which inspires employees, where the individual leads by example, whereby fostering an entrepreneurial mindset within the organisation.
Promotes empathy	Builds a supportive work environment by acknowledging the employee's contribution and empowering them with autonomy. This increases morale, motivation, and engagement.
Enable collaboration	Strengthens team cohesion and open communication, allowing employees to freely share ideas and feedback, which is essential for creative teamwork.
Innovative behaviour and attitude through encouragement	Cultivates a culture that motivates employees to innovate by recognising their contribution, achievement and encourages critical thinking and problem-solving.
Creativity and innovation	Drives the development of new ideas, products, or processes, giving the organisation a competitive advantage in adapting to market changes.
Managers' entrepreneurial self-efficacy	Increases their managers' confidence to take the initiative, through encouraging a proactive and entrepreneurial approach within their teams.
Managers' innovative behaviour	Inspires employees to innovate by modeling desired behaviours, promoting a workplace where new ideas are sought and valued.

Intellectual stimulation	Challenges employees to engage in creative problem-solving, enhancing their skills and driving continuous improvement across the organization.

Table 6.2: Entrepreneurial leadership framework as contribution to practice. Source: Author

6.5.1 Revised theory based on ENTRELEAD model

To assist in understanding this concept of entrepreneurial leadership, the ENTRELEAD model can provide a structured approach to understanding how entrepreneurial leaders influence organisational behaviour and innovation by focusing on creative solutions and risk-taking attributes. However, the findings of this study have emphasised that entrepreneurial leadership extends beyond risk-taking and providing creative solutions, which include building trust, promoting open communication, and fostering a collaborative culture that encourages and values different perspectives. In describing these entrepreneurial leadership traits, the revised entrepreneurial leadership framework has extended the ENTRELEAD model by introducing three new entrepreneurial leaders' behavioural traits: promotes empathy, enables collaboration, and innovative behaviour and attitude through encouragement.

In the context of these behavioural traits, the leaders in Pakistan's high-technology SMEs can encourage innovation by motivating their teams to think creatively, involving their employees in decision-making processes, and creating an environment where autonomy and empathy are valued. By combining established entrepreneurial traits as advocated by Renko et al. (2015) with these new emergent themes, leaders can cultivate more innovative, resilient, and future-thinking employees. The leaders of Pakistani SMEs can introduce a practical entrepreneurial leadership approach based on this entrepreneurial leadership framework to assist managers and employees in their companies to enhance innovation by encouraging and nurturing innovative behaviour. This perspective is presented below, commencing with promoting empathy.

[1] Promotes empathy

The entrepreneurial leadership approach developed from the findings emphasised the importance of empathy. Leaders in high-technology SMEs can leverage empathy as a strategic tool, recognising that empathy in leadership is more than just a soft skill; instead, it is an essential strategic imperative for achieving organisational success. Leaders engaging empathetically with their employees can play a crucial role in promoting a positive company culture. This approach can not only enhance employee morale but also contribute to a more inclusive and supportive work environment. By investing time in understanding the unique

needs, challenges, and aspirations of their team members, a leader's empathy can promote open communication. Actively listening to diverse perspectives and validating employees' experiences can help to build trust and strengthen relationships within the organisation. As a result, this deepened connection encourages collaboration and drives innovation, leading to more motivated and cohesive teams. Ultimately, embracing empathy in leadership practices can significantly transform the dynamics of high-technology SMEs, enabling them to be successful and sustainable. Leaders, by focusing on being people-centric, can promote empathy and a perception of employees feeling valued. By being empathetic, this trait can enable leaders to value, empower, and reward employees, promoting engagement, motivation, and a sense of belonging. Therefore, leaders need to recognise the value of understanding employees' personal and professional needs.

[2] Enable collaboration

Leaders can significantly enhance their organisations by fostering a culture of empathy, which in turn cultivates a collaborative environment. Such collaboration is not only beneficial but essential for driving innovation. To create a dedicated collaborative atmosphere, leaders should actively seek to establish opportunities for team members to engage with one another, thereby facilitating the free exchange of ideas. In the Pakistani SMEs context, promoting trust can enhance teamwork and collaboration, which is vital for successful problem-solving and innovation. When team members feel secure and trusted, they are more likely to share their thoughts and contribute to group discussions without the worry of being judged. Leaders can promote this trust by being transparent in their communication and by demonstrating honesty in their actions. This approach can establish a safe space in the workplace where employees feel empowered to voice their opinions, ultimately leading to richer discussions and more creative outcomes. Leaders can take proactive steps to strengthen collaboration within their teams. This collaboration can include organising regular brainstorming sessions, which offer a structured forum for employees to work together to generate innovative ideas. These activities can be supplemented with team-building opportunities that strengthen interpersonal relationships and enhance camaraderie among team members.

[3] Innovative behaviour and attitudes through encouragement

Leaders must prioritize the cultivation of an environment that not only supports but actively promotes creativity and innovation. This can be achieved by empowering teams with the autonomy to experiment and explore new ideas, providing them with the freedom to pursue unconventional approaches without the fear of failure. To truly stimulate innovation, it is imperative that leaders take a proactive role in encouraging their teams. This involves creating a culture where taking calculated risks is celebrated rather than penalised. Leaders should provide resources and support for experimentation, allowing team members to share their ideas openly and collaborate on creative solutions. To promote this creative climate, leaders should actively encourage managers to build entrepreneurial confidence among their teams. This can be effectively achieved by creating an environment where employees are given opportunities to lead various initiatives, actively participate in decision-making processes, and assume leadership responsibilities in projects. It is crucial for leaders to provide continuous and constructive feedback, recognising innovative efforts and contributions, even when those efforts do not result in success. Such recognition helps to build a culture of support and resilience. By empowering employees in this way, organisations nurture a proactive mindset among their teams, where individuals not only feel encouraged to take the initiative but are also motivated to propose new and creative solutions to challenges.

Leaders play a crucial role in promoting an environment that nurtures intellectual curiosity within their teams. By presenting employees with intellectually stimulating challenges and instilling a sense of belief in their capabilities, leaders can increase creative thinking and innovation. To achieve this, it is essential for leaders to encourage their teams to engage in critical thinking. This involves prompting employees to question established norms and consider alternative perspectives, which can ultimately lead to breakthrough ideas. When leaders encourage their teams to achieve ambitious objectives, they motivate employees to stretch their abilities and explore new solutions.

In summary, this study has provided a comprehensive insight into how entrepreneurial leadership can influence innovation within Pakistan's high-technology SMEs. The integration of empathy, collaboration, and encouragement within the existing ENTRELEAD framework suggests that entrepreneurial leadership extends beyond risk-taking and vision to include relational and supportive behaviours which nurture an inclusive and innovative organisational

culture. These insights contribute to a richer understanding of entrepreneurial leadership by offering practical guidance for leaders seeking to promote innovation.

6.6 Limitations

This study included ten businesses in the sample; more research would be needed to establish if these results would hold for a larger population of enterprises. In this study, a selected group of high-technology SMEs from Islamabad capital city of Pakistan, are considered. Therefore, it is industry, location, and culture specific. The restricted sample and frame size must be considered while applying the theory (entrepreneurial leadership), even if it is intended that this research will contribute to the theory. Any theory that emerges from the data must be tested in further detail to determine its relevance to a wider range of situations. The results of a longitudinal study may change with time. Studying entrepreneurial leadership and its influence on innovation at the start-up stage and in businesses that are experiencing a drop in revenue and market share would be very fascinating.

While this study offers valuable insights into entrepreneurial leadership behaviours, there are also limitations. The research relied on a small number of participants from ten high-technology SMEs in Pakistan, which may not fully represent the broader SME sector. The qualitative nature of the research, although suitable for exploring perceptions and emergent themes, also means the findings cannot be generalised without caution.

There is a limitation associated with the difficulty of linking the entrepreneurial leadership behaviours identified in this study with actual firm success. While participants provided rich descriptions of their leadership style and how they perceived it to promote innovation, it remains unclear whether these behaviours directly contributed to measurable outcomes such as financial performance, competitive advantage, or product development success. This limitation is inherent in interpretive qualitative research, which seeks to explore meaning and context rather than test causality. Therefore, the effectiveness of these behaviours in practice cannot be fully determined from this study alone.

While leaders expressed values such as empathy, collaboration, and vision, the precise ways these attributes were enacted in organisational processes or embedded into daily routines remained unclear. This gap highlights the need for future research to explore not only what entrepreneurial leaders value or intend, but also how these behaviours are consistently implemented and sustained over time. To assist in demonstrating theoretical validity and unearth fresh insights, future studies can benefit from the use of quantitative methodologies

and mixed methods for a greater number of SMEs. For instance, employing surveys to investigate mediating and moderating factors would be made possible by the themes found in this study.

Another limitation of this study relates to the demographic composition of the participants. All individuals interviewed for this research were male, which is likely a reflection of the male-dominated nature of the high-technology SME sector in Pakistan. While this demographic outcome may accurately represent the gender composition within the sector, it does restrict the generalisability of the findings. As such, the absence of female perspectives may have excluded potentially valuable insights into how entrepreneurial leadership is enacted and experienced across different genders. Future research would benefit from including a more gender-diverse participant base to explore whether similar themes emerge in contexts with greater gender inclusivity.

6.7 Future research recommendations

Building on the limitations outlined in the previous section, future research should aim to establish stronger practical links between entrepreneurial leadership behaviours and actual firm-level outcomes. Specifically, studies could adopt longitudinal or mixed methods approaches to investigate how the leadership traits identified, such as promoting empathy, enabling collaboration, and encouraging innovative behaviour, translate into measurable organisational success over time. Quantitative data, such as growth metrics, innovation indicators, or employee performance indicators, could be used in conjunction with qualitative accounts to assess the practical effectiveness of these behaviours. Further exploration is needed to understand how entrepreneurial leadership traits are enacted in daily routines and embedded within organisational processes. This could be achieved through case study methods, ethnographic observation, or action research that examines the lived application of leadership behaviours in real-time business operations. Future research could explore these themes across different sectors and geographic regions to assess the transferability and robustness of the revised entrepreneurial leadership framework developed in this study. Comparative studies between different SME ecosystems, both within and outside of developing countries, would help refine the model and test its generalisability.

As with any qualitative research, this study too faced constraints such as time and resources to discover more about the proposed research topic. As this area of study is still in its infancy, much more research will be needed before general theory proposals can be made, even though

the sample size of the businesses that were interviewed for this study is currently substantial enough to provide intriguing information and draw conclusions about these businesses. There are several ways the inquiry into SME leadership may be advanced. In the last fifteen years, the Pakistani government is trying in an attempt to promote the IT industry of the country, which includes a major portion of SMEs, as a catalyst for the country's economic expansion (Alam, Shopovski & El Alaoui, 2024). According to researcher knowledge not much study has been done on this kind of industry in the context of Pakistan, though this study presents a case for a deeper comprehension of SMEs entrepreneurial leadership and its influence on the innovative behaviour of staff. Focusing academic work on a sizable but mostly unstudied population in such a significant economic sector is likely to add to our understanding of the subject. Practitioners, investors, and policymakers may find a use for the information and understanding obtained from such a study. Further research may entail extending the SME population to gather more data and taking into account factors like region, culture, business size, and sector specialisation. Further studies can take into account the theories based on the major themes that the study revealed and test them with further different research methodologies. It is important to take into account longitudinal research methods when studying how leaders and followers interact in SMEs over time. The SMEs will continue to create and test integrated models of entrepreneurial leadership and innovation.

While outlining the essential components of entrepreneurial leadership, the study looked into individual or environmental antecedents. In the context of Individual-level antecedents for different types of leadership have been studied, including leader characteristics, cognitive capacity, emotional intelligence, personality, attitudes, and values. These elements could also be crucial for the growth of entrepreneurial leadership. This study encourages future research to look at the individual-level antecedents along with the organisational context in which leaders operate. In particular, the position that leaders hold within the organisation may influence their entrepreneurial leadership style, and as in this study shows that entrepreneurial leadership is more common among higher up the hierarchy, such as owner-managers.

6.8 Conclusion

The goal of this research was to gain a critical understanding of how entrepreneurial leadership can influence and encourage innovative behaviour among staff in Pakistan's high-technology SMEs. This phenomenological study focused on the lived experiences of the staff to understand how they perceive the leadership style used by their leaders to achieve this goal. Semi-structured interviews were utilised as the primary data collecting method in this qualitative

study to first get the opinions of the CEOs or other top executives of Pakistani high technology enterprises before examining the managers' perspectives. A thematic analysis was done in this phenomenological research to analyse the interviews based on emergent themes. From the data, there were three emergent themes: promotes empathy, enables collaboration, and innovative behaviour and attitude through encouragement.

The businesses in this research study seldom displayed the concept of entrepreneurial leadership style (Gupta et al., 2004) and (Renko et al., 2015), shown by inventive and creative abilities (Latif et al., 2020). All of the study's participants in leadership roles had certain traits of an entrepreneurial leadership style, but it was not clear how such traits were put into practice. The majority of leaders exhibited participatory, delegative, democratic, and collaborative leadership traits; however, leaders occasionally displayed an entrepreneurial leadership style, but they were not entrepreneurial in the usual meaning of the word. Although leaders did contribute to the organisation's innovation efforts, they frequently exhibited closed leadership behaviours (Zacher & Rosing, 2015).

To gain a competitive edge, today's firms need powerful executives who comprehend the fast-changing global environment, complicated client requirements, and technical breakthroughs. A start-up’s early stages are crucial in determining whether it will survive and grow over time, which highlights the importance of leadership that promotes successful results. Entrepreneurial leaders can gain from this research in terms of leadership practice by using the entrepreneurial leadership conceptual framework that has been discovered.

This study highlighted the significance of leaders’ entrepreneurial leadership behaviour to the innovativeness of SMEs and identified entrepreneurial leadership future orientation as a major predictor. This study adds to the body of knowledge in the domains of intellectual agility, entrepreneurial leadership, and innovativeness of SMEs, and their interrelationships. The study assists the owners and managers of SMEs in directing their future work and motivating them to enhance their innovativeness. Thus, this study offers three valuable additions. First off, this study expands our understanding of the attributes that influence innovation in SMEs by highlighting the importance of collaborative culture and intellectual agility in the innovativeness of SMEs. Second, the study looks at how innovativeness and entrepreneurial leadership are related to one another in the context of SMEs. Although according to the researcher's knowledge, there are no substantial studies on this topic regarding Pakistani SMEs, in terms of the innovativeness of SMEs, the theoretical case for the contribution to both

entrepreneurial leadership and innovation is intuitively appealing. In addition to addressing these concerns, this study also looks at whether or not entrepreneurial leadership functions as a mediator in this process. Additionally, practitioners and policymakers in developing countries working to develop innovation-driven competitiveness and knowledge should consider the practical implications of the study's emphasis on the innovativeness of SMEs in the context of developing countries.

6.9 Reflection

DBA is a perfect programme for professionals; it is designed in a way that helps to explore deeply into the research area with great support provided to solve the difficult questions that arise during the journey. My journey to the DBA was a great learning curve, and now the programme itself enriches my knowledge and makes my path clearer and brighter towards my goal. Bolton (2001; p. 4) said, “Reflective practice is a process of learning and developing”. If now I look back at the last five years of my research journey, sometimes I wonder how I managed to balance my personal life with a doctorate away from home. The kind of support I got from my family and University it really encouraged and motivated me to work harder towards my goal. The tutoring style never made me feel that I was asking any “dumb” questions; I found this kind of support throughout my research journey.

Throughout my DBA journey, my research and I have come a long way; my thinking process has evolved so have the research objectives. Research took different directions during this period, and each time it paved my way towards a better understanding of the research topic. I was unsure about my stance as a researcher at the start, but during the taught phase of the programme, I got a clear picture of my position as a researcher and about the study. The reason for choosing constructivism as a philosophical stance is that the study of human behaviour in a social environment is a psychological phenomenon, which also sets out the complex nature of the study. I was not sure at the start of the programme about the philosophy because I was more inclined towards a mixed-method approach. All the modules set out the map for this research journey, and all I needed to do to find the right path for my journey to reach the destination. This is my research, and I need to find the right techniques and methods to conduct this study.

According to the ontological position of constructivism, reality is not independent but rather it is constructed by individuals. Therefore, the reality keeps on changing according to the interpretation of humans; knowledge cannot be gained through observing reality or by

measuring it. It needs to be experienced in a different context to understand the reality. Constructivism acknowledges the existence of the real world outside of human consciousness, but constructivism is more interested in the human mind's construction and evaluating to which these constructions are true in creating the external reality. This brought me to the understanding of my study and my skills, and raised questions for me. How do I look at the reality? How do I want to conduct my research? And what is the nature of my research?

DBA modules helped me to clear my mind as a researcher, and the skill set I possess, which I can best utilise to conduct this research. I chose constructivism because it will help to understand the phenomenon in the best possible manner to construct the concrete meaning of the research problem. The main objective of the study is to understand the social behaviour of people in a working environment. This philosophical paradigm is best suited to explore this kind of study.

My experiences paved the way to a better understanding of my research; during my professional career, I have advised many SMEs in the technology sector on investment. My interactions with executive leaders and managers can show the practical implications of this research. My own knowledge of the potential to enhance the shared creative cognition of leaders and managers has been increased by the research. There is a lot that can be done to raise the communication standards that could affect innovation. The constraint and challenges faced by the leaders of SMEs in the Pakistani technology industry is another thing that the research has brought to my attention. By publishing the findings of this research, it is hoped that other SME leaders will become more aware of these same problems, be inspired to adopt a longer-term perspective on innovation and take into account a range of leadership behaviours and styles depending on the situation. This might inspire researchers in other fields to study entrepreneurial leadership within the context of SMEs.

My own approach to managing SMEs has evolved into a tried-and-true formula that incorporates elements of theory and strives to create an idealised model of leadership that can promote innovation in the business. On a personal note, I believe that the DBA journey has contributed immensely to my life; however, I think it is not the end but a new start to the new chapter of my life. The learning journey I have been through this research stimulated me to learn further and explore. I intend to conduct additional research on the subjects of challenges faced by female entrepreneurs in the technology sector. I find it while conducting my research that there is a very limited presence of females in the technology sector in Pakistan, let alone

as technology entrepreneur. I wish to support female entrepreneurs as they navigate various challenges and processes in global contexts among varied cultures. Reflecting on my professional development in the DBA degree often makes me wonder how my future may be affected.

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Appendix 1: Research consent form

Consent to take part in research

- I.....voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answerany question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview at any time after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview, which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview will only be used for the research purposes.

I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.

- I understand that signed consent form and original audio recordings will be saved in coded files with password protection and only the researcher will have access to it.

- I understand that a transcript of my interview in which all-identifying information has been removed, and will be retained for [*specific relevant period – for students this will be two years from the date of the exam board*].

- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.

- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

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Signature of participant Date

I believe the participant is giving informed consent to participate in this study

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Signature of researcher Date

Appendix 2: Interview protocols

A. Business leader

General leadership style information

What do you understand by leadership style?

Hint: Behavioural approach of the leader

Do you have a leadership style? How does your leadership style influence on your management team?

Hints: Acquired leadership style effectiveness and its impact on employees

How would you describe your experience as a leader, and what are main qualities of a leader as an entrepreneur?

Hints: Traits and values

General information at business level

What was the idea and motivation behind starting up a hi-tech company and becoming an entrepreneur?

Hints: Motivation behind becoming an entrepreneur at personal level, ambitions etc

What are your core values and beliefs and how do they influence your business?

Information at organisation level

What key leadership strategies do you follow and how do they influence the business strategy?

Hints: Leadership strategy to achieve business goals

How do you evaluate your leadership skills, and do they have any impact on the success of the business?

Hints: Leadership process, process of opportunity exploration and exploitation in the business.

Innovative work behaviour relevant information

I would like now to move the discussion forward to the role your (leader) leadership style played to promote an innovative work environment.

What do you understand by these terms, intellectual freedom, creativity and innovative thinking? What part they play in your leadership style?

Hints: How much freedom have employees to explore and express new ideas and information?

How your (leader) leadership style helps to generate new creative and innovative ideas through the help of employees?

What is your understanding of being flexible and receptive as a leader to different innovative ideas from your management team? Give examples

How often innovative thinking is encouraged in your company and how you reward it?

Hints: Leadership style employed to promote innovative thinking in the company

To what extent do your management team look up to you for inspiration?

B. Employee

General company leadership information

Please explain what do you understand by attribute such as transparency?

Hints: Does company environment encourage open communication and sharing?

To what extent do you consider the relationship between the leader and the management team is transparent in this company?

Hints: company's values, culture and leadership style

Do you consider leadership is receptive to new ideas even though if they do not agree with it?

Hints: Are company leaders open minded and receptive of alternative perspectives?

Describe, how do you find the leadership of this company?

Describe the qualities of entrepreneurial leader in this business?

Hints: Do leader solves problems collaboratively? A leader is a risk-taker and visionary. etc

Innovative work behaviour relevant information

As a member of the management team, to what extent do you have the freedom to express yourself and are encouraged to come up with new innovative ideas? Give examples

Hints: Does leader empower and encourage employees to be more innovative?

How often you as a member of the management team have been given the opportunity to be more creative and innovative in your role? Provide examples

Hints: Enquiry about being creative and innovative in job role.

To what extent do you consider the leadership being highly involved and motivated towards entrepreneurial activities?

Hints: Discussion about the future of the company and enquiring entrepreneurial mindset.

How do leadership deal with the changing business environment? Please provide examples

Hints: leadership attitude towards current technological advancement in the market.

General personal experience level information

Describe your experience as a member of management team in this company?

To what extent do you consider that you as a member of the management team are being utilised to best of your abilities?

Can you give me an example from your personal experience when you were encouraged to be more creative in your thinking?

Appendix 3: ENTRELEAD category–Interview questions mapping

This appendix provides a detailed mapping between the eight ENTRELEAD categories used in this study, derived from Renko et al. (2015), and the corresponding interview questions included in the semi-structured interview protocols (see Appendix 2). The mapping illustrates how each theoretical dimension of entrepreneurial leadership was operationalised through specific interview questions. This was done to ensure consistency between the conceptual framework and the data collection, and to maintain methodological transparency throughout the study.

ENTRELEAD Category	Corresponding Interview Questions
Comes up with radical improvement ideas for products/services.	Can you give me an example from your personal experience when you were encouraged to be more creative in your thinking?
Comes up with completely new product/service ideas.	How often have you, as a member of the management team have been given the opportunity to be more creative and innovative in your role?
Takes risks	Describe the qualities of an entrepreneurial leader in this business. (Hints: A leader is a risk-taker and visionary, etc.)
Has creative solutions to problems	Do you consider leadership receptive to new ideas even if they do not agree with it?
Demonstrates passion for his/her work	To what extent do you consider the leadership to be highly involved and motivated towards entrepreneurial activities?
Has a vision of the future of business	How do leaders deal with the changing business environment? Please provide examples
Challenges and push staff to act in a more innovative way.	As a member of the management team, to what extent do you have the freedom to express yourself and are encouraged to come up with new innovative ideas? Give examples.
Wants staff to challenge the current ways we do business.	What is your understanding of being flexible and receptive as a leader to different innovative ideas from your management team? Give examples

Appendix 4: Anonymised list of firms and size

Company	Business Sector	Relative Size	Entrepreneurial Leadership Style Notes
Company 1	High-Tech/Engineering	Medium	Blends democratic and delegative leadership. Encourages intellectual freedom and structured innovation. Uses individual/team awards. Situationally autocratic.
Company 2	Technology Startup	Small-Medium	Hands-off, open leadership. Values trust and team input. Innovation is encouraged via informal recognition and freedom of thought.
Company 3	IT Services	Small	Leads by example. Avoids micromanagement. Encourages creativity within constraints. Promotes strong internal communication/collaboration.
Company 4	IT/Project Management	Medium	Delegative, adaptive leadership. Encourages innovation with compliance. Offers tailored rewards (financial or recognition). Uses 360-degree feedback for self-improvement.
Company 5	Software Development/IT	Medium	Consultative leadership. Innovation integrated into culture. Rewards through structured performance systems. Emphasises trust, collaboration, and creativity.
Company 6	Tech/Product Development	Medium	Leadership by example and consensus. Strong subject-matter expertise. Encourages innovation and continuous improvement—quarterly and annual performance-based rewards.
Company 7	Software & Product Services	Small	Entrepreneurial, partnership-based approach. Shares equity/profits—Prioritises team development and openness.
Company 8	IT Services / Multi-domain Tech	Medium	decentralised decision-making. Weekly idea forums. Encourages innovation and creativity. Financial/promotional rewards offered.
Company 9	Digital Services/Enterprise Tech	Medium	Delegative with strong vision. Innovation is supported at all levels. Encourages team decision-making. Rewards via structured performance assessment.

Company 10	Digital Products / Freelance Tech	Small-Medium	People-centred leadership. Encourages startups within the team. Offers collaboration/equity on new projects. Focused on flexibility and growth for all team members.

Appendix 5: Executive Leader Interview

Explain purpose

I'm going to briefly tell you about the aim of my project is basically to identify the ways that entrepreneurial leadership style affects the motivation and performance of staff to promote innovation in the company.

Consent

I'm recording this interview for my personal information. Any material derived from this interview will be used solely for the purpose of my research and no material will be shared with any person or organization.

So during the interview, if you do not want to answer any question, you can say, no or withdraw.

Before we start the interview, do you have any questions?

Section 1: Background

Section 2: Leadership style

Section 3: Impact on staff

Section4: Innovation practices

Section 5: Closing

Any question from participant

I just want to thank you for giving me this opportunity to interview. It was pleasure talking to you.

Appendix 6: Manager Interview

Explain purpose

I'm going to briefly tell you about the aim of my project is basically to identify the ways that entrepreneurial leadership style affects the motivation and performance of staff to promote innovation in the company.

Consent

I'm recording this interview for my personal information. Any material derived from this interview will be used solely for the purpose of my research and no material will be shared with any person or organization.

So during the interview, if you do not want to answer any question, you can say, no or withdraw.

Before we start the interview, do you have any questions?

Section 1: Background

Section 2: Leadership style

Section 3: Impact on staff

Section4: Innovation practices

Section 5: Closing

Any question from participant

I just want to thank you for giving me this opportunity to interview. It was pleasure talking to you.

Appendix 7: Executive leader (L4) transcript sample

Me: What do you understand by leadership style?

There are different styles when it comes to how a leader interacts with his team. Formally, you can identify four or five different styles of leadership. There's one which is more authoritarian and which leader is somehow imposing his decisions on his team or forcing others to follow his direction without asking for any feedback or discussions. On the other hand, there are leaders who like to be more open in terms of discussion, in terms of feeding of ideas from others from their team. There's also leaders who work in a way of rewards and punishments. And there's also leaders who would just delegate stuff and then maybe probably some deadlines and then not micromanage, but then follow up when the deadline is due.

Me: Do you have a leadership style? How does your leadership style influence your management team?

I do not have a particular leadership style. I work more as a delegator rather than somebody who micromanages. But it again depends on the situation, the scenario, and the team members who I am working with. So, keeping in view the team, there are instances where I have to be authoritarian and there are instances where I have to be more transactional. But generally, I prefer being a leader who discusses all the options we have with the team, gets input from each team member before we start a task so that everybody is committed, and takes ownership, and then I generally leave them to do the task and follow up when it is necessary. Otherwise, I will not bug them from time to time. If, there is a certain amount of ownership with everyone when they are performing a task. The results are better in terms of quality.

There is a certain amount of ownership with each individual when they are performing a task. Yes, there can be issues with time management because, let them think on their own, and act on their own. Some people take more time to perform a certain task because they do not want to make mistakes. In general, it is beneficial when all individuals in a team take ownership of their tasks and responsibilities, as this approach leads to higher-quality outcomes and reduces the likelihood of risks and errors.

Me: To what extent does your management team look up to you for inspiration?

Like I said, I mean, in terms of inspiration, sometimes definitely. When there's an issue, when when things are stuck, they need some reassurances that and they definitely look up to me for inspiration. And somebody like me, generally, I tend to stay very calm in tough situations, and

I think this is what inspires the team. They do not have to feel very under pressure. And what that does is basically it takes a little pressure off them when they really stuck. What I do in that is if I feel that we're stuck somewhere, any individual or any team is not moving in a particular direction or the project is stuck, I would try to disassociate them completely for a short while, maybe put them to some other task or maybe have some other activities just to relax them, just to freshen up their mind. I think this is what inspires my team, and this is what tends for them to stick to me, to look up to me and work with me on different projects.

Me: What do you understand by these terms, intellectual freedom, creativity and innovative thinking? What part they play in your leadership style?

These are actually really important to me as an individual as well as a leader. I have always valued openness and innovation, both as an individual and as a leader. When I was a team member, I found it crucial that my superiors and managers were open to listening to the team's ideas. Now that I am in a leadership role, I hold myself to the same standard, expecting my team to be forward-thinking and bring original ideas to the table. I constantly encourage them to think outside the box and come up with fresh approaches, rather than simply replicating past experiences. Even when we are revisiting familiar tasks, I still strive for new ideas, believing there is always room for improvement. So this is something that really is a part of my job as a leader towards my team.

Me: What is your understanding of being flexible and receptive as a leader to different innovative ideas from your management team? Give examples

It has to be very situational. While I'm certainly open to innovative ideas, while I'm certainly more or less always the last person to speak up in a meeting, I always ask my team to start speaking first, start giving me their ideas before I say anything, because if I say something first as a leader, generally the team tends to follow what I'm saying and tends to agree. So I try to avoid that. I try to take an ideas first, discuss them openly, discuss the pros and cons, but it has to depend on the situation. I mean, if it's a task which is more critical, in which I cannot or I do not have the flexibility to allow this, then generally then I have to be a little more forthcoming into what the team has to do.

Example: There have been quite few instances, I cannot be very specific but there have been instances I knew that certain task can be done in multiple ways. I would ask the team to come up with their own idea, then implement them. Just to see how they do it, how they take it, but I cannot be very specific right now.

Me: How often innovative thinking is encouraged in your company and how you reward it?

Innovative thinking is generally encouraged as far as we are within the compliance and technical limit that we have set for our people. We tend to be very flexible, we tend to support ideas openly. And we reward it in mainly two different ways, and that depends on the team or on particular individual who is doing that task, so reward can be either financial or it can be any other incentive like some award or recognition, depends on the individual. I think this is part of the leader that you need to identify what is motivating that individual, like some individuals want recognition and some want financial reward or other incentives. So identifying that the company and we as an organization are very flexible in rewarding each individual respectively.

Me: Describe how you evaluate your leadership skills and do they have any impact on the success of the business?

The way I evaluate my leadership, I would like to change it a bit. We have in our organization 360-degree feedback. We get our feedback from around us, for me personally I take this feedback at least twice a year, and I include people working under me as well as people around me who knows me personally and professionally from different locations. And I asked for their feedback and I keep it anonymous, I take it seriously, and I try to implement any corrective measures I have to do in my leadership style and my organization management style.

Me: How would you describe your experience as a leader?

It's not easy, the toughest part is dealing with different kind of people. I work more as a delegator rather than somebody who micromanages. Because I have people on my team with different educational and even societal backgrounds. And as a leader, I think my job is to manage their [employees] differences that are present there within the team, and somehow find a way for them to work together as a collective unit and to contribute to the organization. There are rifts, there are differences, there are even disagreements, and for the biggest focus is to make sure that the harmony within the team remains.

Me: What do you think what are the main qualities of a leader as an entrepreneur?

I think you have to be inspiring, you have to be somebody to who people are looking up to. And you have to have that X-factor that makes people follow you, if you want to be a successful entrepreneur.

Appendix 8: Manager (M4) Transcript sample

Me: Please explain what do you understand by attribute such as transparency?

Basically for me that just means that in two context, one is that all the data that has been shared which mean decimated to the team is being shared without any prejudice or anything, which is kept away from the user. Similarly this also applies at the time I think when you are giving back the feedback to your team. If it is you are being honest and not holding anything, it is as honest as possible. This is my understanding of this question

Me: To what extent do you consider the relationship between the leader and the management team is transparent in this company?

In my personal capacity, I think it is very transparent. Because I have pretty decent mean of communication at least with my manager. So at least in my view, I tend to be very vocal about my part or my communication or my ideas to my manager, and similarly he is pretty straight forward and direct about his feedback on certain things which I do. So in that regard its fine, however I think what I felt is at higher level they become more political then transparency is lost somewhere in that.

Me: As a member of the management team, to what extent do you have freedom to express yourself and are encouraged to come up with new innovative ideas? Give examples

I think that leverage is there, I think at the end things come down to how the team is working and how the end goal is for the company. And currently the environment we are working in, there is a lot of flexibility in terms of coming up with new innovative ideas, to improve processes within the company to bring in new ideas for technical enhancements of the products. The leadership not only initiate the ideation process but also gives employees a lot of support to work creatively for products development. For example when I joined this company there was no means of sharing data with the team, like they were still using files, excel sheets and all that. So I just popped an idea like why we can't setup a share point server or something, and manager was like okay if you can go ahead, and whatever resources I needed, whatever things I needed I was supported. There is a lot of flexibility in developing new innovative ways to improve processes within the company and to bring in new ideas for technical enhancements of the products. We are currently working on certain projects that require hardware to be procured. This idea of procuring this hardware was my idea, and the leadership team were happy to accept and invest in this concept.They have been supportive in terms of providing me these resources and time everything, so in that way it is pretty good right now.

Me: Do you consider leadership is receptive to new ideas even though if they do not agree with it?

That I think if you club this question with your second part, not really, basically you have to convince them. Once they are convinced they are receptive and open to ideas but first part is if they do not agree and they want to give you something, usually I haven't seen that. You have to convince them to make them see your viewpoint then they will give you that freedom.

Me: so you are saying if they do not agree with it, there are chances they are going to reject the idea?

Yes, you have to convince them to, first to see them the new idea may work and explain the benefits, then only they will consider. At least that's my experience. But once you make them agree with it then things become easier.

Me: How often you as a member of the management team have been given the opportunity to be more creative and innovative in your role? Provide examples

Yeah I just gave couple of examples so there were some technical enhancements in our products that we are working on, and that was given, that's the sort of opportunity taken not just on local level even on global level functions. We have been given the leverage to work with product management team, and so I broader sense it has been very open in that regard, so that example fits over here, and management has been totally supportive for that.

Me: Describe, how do you find the leadership of this company?

As I mentioned, our leadership is somewhat reactive when it comes to risk-taking. We tend to overanalyse situations before making decisions, particularly concerning existing products. This cautious approach often leads us to choose safer, more cost-effective options. However, this tendency to avoid risks might also result in missing opportunities that involve risks, which could otherwise help the company to grow.

Me: Describe your experience as a member of management team in this company?

On my level it has been very rewarding, to be honest this has been the first time I am in a management sort of a role. In my experience it has been a huge learning curve overall, because ideas and work is always manageable, managing teams, individuals, personalities that always

the harder part. So that is something I think you ever evolving, everyday there is a new challenge with that. So that something is sort of an eye opener for me, for my daily work life to interact with the team and you know motivation and get the work done and stuff like that.

Me: To what extent do you consider the leadership being highly involved and motivated towards entrepreneurial activities?

There has been a lot of talk going on recently to create this entrepreneurial mindset and somehow establish that into the company culture. This is something that the company is trying to do right now as the entrepreneurial mindset has been lacking. So, there is a huge effort going on, they [leadership] are trying to reward people who are coming up with new ideas, there is lot of focus on taking ownership of work you doing, which is something I think fundamental to be an entrepreneur. Because like if it is your own business then you will take ownership of everything you do. Also to look out for pros and cons, then take the actions and take the risks. That is something company is trying to induce in the culture, but I think that will take time to sort of make it a second nature.

Me: How do leadership deal with the changing business environment? Please provide examples

As I mentioned they are little bit reactive right now, in our company we analyse and sometimes over analyse the situation, only then we decide to do something. So in that way company is pretty reactive in changing environments, so sometimes it helps because since you are risk averse, you try to find the safer choices, which works in terms of cost effectiveness. But it also makes you lose certain opportunities which you should take with the competition in making. So that is something I feel how it is working right now.

Me: To what extent do you consider that you as a member of the management team are being utilised to best of your abilities?

I think I am pretty satisfied with what I have been doing, because at least in my role I have been given that leverage or that freedom you can say, as compared to other people I see in my organisation. I have more freedom to explore different ideas, because I think it is because of good track record in previous projects, so I think I have freedom from my management to pursue ideas which I feel others do not get that opportunity. Personally I feel lucky to have that opportunity over here.