The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia

by

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Abstract

This study aims to empirically examine the impact of organisational leadership on organisational innovation in the aviation industry in Saudi Arabia. The study adheres to the traditional scientific paradigm and estimates parsimonious specifications instructed by the theoretical framework advanced in Setiawan et al., (2021). A questionnaire has been custom designed to collect data from employees in the General Authority of Civil Aviation (GACA) in Saudi Arabia and Alpha Star Aviation Services Company. A total of 355 respondents returned completed questionnaires. The results of the study show that employees' perceptions in the aviation industry in Saudi Arabia concerning the underlying leadership style that promotes innovation their organisation is transformational leadership. This is as opposed to other styles of organisational leadership: the transactional style and the passive-avoidant style. The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation is mediated by the levels of employee creativity and organisational culture. The study reports that such mediation, though well-pronounced and statistically significant at all traditional levels, falls short of the full mediation criterion. This suggests that the mediating influences of employee creativity and organisational culture are not sufficient conditions, in themselves, and the impact of transformational leadership on organisational leadership is required. This indicates that other mechanisms may still matter in mediating the relationship between organisational leadership and organisational innovation, and those other mechanisms should be the aim of future research. This study shows that inspirational motivation tends to drive organisational innovation the most in the KSA aviation industry, and then behavioural idealised influence is of secondary importance. The study performs and reports robustness analyses which confirm the integrity of the data for use in PLS analysis. This study informs aviation stakeholders in Saudi Arabia, how to drive positive change to foster a culture of innovation, and achieve sustainable growth and success in an increasingly dynamic and competitive industry.

Keywords: Civil Aviation Industry, Employee Creativity, Leadership, Leadership Styles, Organisational Culture, Organisational Innovation, Saudi Arabia.

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List of Abbreviations

AL	Authoritative Leadership
AVE	Average Variance Extracted
CEO	Chief Executive Officer
CFA	Confirmatory Factor Analysis
DL	Delegative Leadership
EBP	Evidence-Based Practice
EFA	Exploratory Factor Analysis
EI	Emotional Intelligence
ERP	Enterprise Resource Planning
GACA	General Authority of Civil Aviation
GDP	Gross Domestic Product
HR	Human Resource
ICT	Information and Communications Technology
ILS	Implementation Leadership Scale
IND	Individualism
KBE	Knowledge-Based Economy
KMO	Kaiser-Meyer-Olkin
KSA	Kingdom of Saudi Arabia
LEED	Leadership in Energy and Environmental Design
LTO	Long-Term Orientation
MAS	Masculinity
MLQ	Multiple Leadership Questionnaire
MRO	Maintenance, Repair, and Operations
OECD	Organisation for Economic Co-operation and Development
OI	Organisation Innovation
PAL	Passive Leadership
PCA	Principal Component Analysis
PL	Participative Leadership
PLS	Partial Least Squares
SEM	Structural Equation Modeling
SPSS	Statistical Package for the Social Sciences
TCL	Transactional Leadership
TSL	Transformational Leadership
UAI	Uncertainty Avoidance

Dedication

I dedicate this humble research to my dear mother; I would not have reached anything without your prayers.

To my father who believed in me and encouraged me, may God keep you as a crown above our heads, I would not be the person I am today without your love and support. You have taught me the importance of hard work, perseverance, and compassion. I am so grateful for everything you have done for me.

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Chapter One: Introduction

The aviation industry in Saudi Arabia is undergoing significant transformation as part of the broader vision to diversify the economy and enhance its global competitiveness, particularly under the Saudi Vision 2030 initiative. As part of this ambitious plan, organisational innovation has become a core focus in the aviation sector as companies seek to enhance their services, improve operational efficiency, and integrate advanced technologies to stay competitive. In this dynamic environment, organisational leadership plays a critical role in fostering innovation by guiding and inspiring employees toward creative problem-solving and collaboration. This study explores the impact of organisational leadership on organisational innovation within the Saudi aviation sector, with particular attention to how employee creativity and organisational culture act as mediating mechanisms in this relationship. By focusing on leadership's influence on creativity and culture, the study aims to offer insights into how leadership practices can be optimised to drive organisational innovation effectively. In particular, the study empirically examines the impact of organisational innovation on the broader organisational innovation process in the Saudi aviation industry, with a particular focus on the mediating roles of employee creativity and organisational culture. By understanding how these factors interact, aviation organisations in Saudi Arabia can create strategies to promote both individual creativity and organisational-wide innovation, thereby positioning themselves for long-term success in a competitive and rapidly evolving global aviation market. The research will thus help illuminate how organisational structures and leadership strategies can foster an environment conducive to continuous innovation, particularly within the fast-paced and complex environment of the aviation industry. By reporting an empirical study, which investigates the relationship between organisational leadership and organisational innovation in the aviation industry in Saudi Arabia, this empirical study explains the variable of organisational innovation in the aviation industry in Saudi Arabia in terms of the variable of organisational leadership style that is evident in terms of the average employee perception in such industry. To achieve its main aim, the study advances research questions to first identify the organisational leadership style evident in the aviation industry in Saudi Arabia, and then empirically capture the dynamics of the relationship between such identified organisational leadership style and organisational innovation. To answer its research questions, the study adheres to the traditional scientific paradigm and maintains the set of all

ontological, epistemological, axiological, and methodological assumptions that are maintained in a typical quantitative study. Moreover, to capture the dynamics of the relationship between the organisational leadership style empirically identified and organisational innovation in the aviation industry of Saudi Arabia, the study estimates parsimonious specifications instructed by the linear models formulated via the theoretical framework advanced in Setiawan et al., (2021). Such a theoretical framework explains the relationship between organisational leadership and organisational innovation via the mediating influences of the variables of employee creativity and organisational culture. The theoretical framework of this study thus represents an integrated model that connects organisational innovation to overall organisational success, focusing on how employee creativity and organisational culture mediate the relationship. Toward this end, the results of the study show that perceptions of the employees in the aviation industry in Saudi Arabia concerning the underlying leadership style evident in their organisation are consistent with transformational leadership. This is as opposed to other styles of organisational leadership including the transactional style and the passive-avoidant style. The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation in the aviation industry of Saudi Arabia is mediated by the levels of employee creativity and organisational culture. Applying a standard protocol to empirical analysis with intervening mechanisms, the study reports that such mediation, though both well-pronounced and statistically significant at all traditional levels, is short of the full mediation criterion. This suggests that both individual and collective mediating influences of the variables of employee creativity and organisational culture may be necessary but not sufficient conditions when channelling through the full impact of transformational leadership on organisational leadership. Furthermore, among the five fundamental characteristics of the style of transformational leadership, the study reports that the characteristic of inspirational motivation tends to drive organisational innovation the most in the aviation industry in Saudi Arabia, and this is followed by the characteristic of behavioural idealised influence.

In view of the preceding, this thesis is presented in terms of a total of six chapters: an introduction, a literature review, research methods, research results, discussion and recommendations, and conclusions and limitations. This introduction chapter presents the background of the study, the research issue, the research aim and objectives, the

research questions, and the relevance associated with the topic of the empirical study. For instance, the background of the study introduces the context of the study by introducing the variables of organisational leadership and organisational innovation while highlighting the Saudi organisational context and underscoring organisational details relevant to the aviation industry in Saudi Arabia. Such background provides that organisational innovation in Saudi Arabia is mainly driven by the support and subjective norms accommodated by the social values of Saudi organisations and by the innovation-related and creativity-based initiatives advanced via the 2030 vision of the kingdom. For instance, organisational innovation currently observed in Saudi Arabia is documented to be largely indicative of the recent national investments in talent management and making sure that the competitiveness and innovativeness of the Saudi workforce in general and youth, in particular, are elevated to global standards. On the subject of organisational leadership in Saudi organisations, the section presenting the background of the study clarifies that the cultural context of organisational leadership in Saudi Arabia may lead Saudi organisations to adopt a style of leadership that is consistent with inspiring and motivating followers toward a common goal. This clarification is further supported empirically in the analysis and results chapters of this thesis since this study documents that the average employee perception in the aviation industry in Saudi Arabia significantly indicates that the leadership style adhered to is that of transformational leadership. The background of the study section is followed by the research problem section, which establishes the practical and theoretical implications of empirically investigating the relationship between organisational leadership and organisational innovation in the aviation industry in Saudi Arabia. In this regard, not only few research papers have been published in the aviation context, but also the findings and recommendations of that scant body of research were seldom put into practice. The research problem section also underscores that the current study is designed to fill the gaps in the literature by complementing the extant literature with empirical evidence with respect to the true nature of the relationship between organisational leadership and organisational innovation with Saudi Arabian aviation industry data. The research objectives section specifies the main aim of empirically documenting the impact of organisational leadership on organisational innovation in the civil aviation industry in Saudi Arabia into specific objectives that address the roles of the mediating mechanisms of employee creativity and organisational culture. The research questions section

presents quantitative questions that exclusively instruct research design and empirical data analysis. The research significance section reports the practical and theoretical significance of this study. From an industry and practical standpoint, this study is significant because it may allow Saudi policymakers and organisational leadership in the aviation industry in Saudi Arabia to focus on those leadership styles which are more beneficial in terms of having a positive approach towards organisational innovation. This is because organisational innovation is necessary for the aviation sector to grow and develop in the future years. From the theoretical perspective, the significance of this study revolves around the potential that answering this study's research questions may entail in terms of supplying future researchers with an empirical basis via which the most beneficial leadership approaches and styles may be associated with organisational innovation in the aviation industry. The penultimate section of this introduction chapter presents the epistemological position of the researcher as presenting the results and conclusions of the study as empirical evidence based on the study sample and research questions. Finally, this introduction chapter is concluded by a section, which presents the presentation of the rest of the study.

1.1 Background of the Study:

The impact of organisational leadership on innovation in organisations continues to attract the attention of scholars and industry around the globe (Abdulrazaq et al., 2018). On its own, organisational innovation cannot be solely responsible for organisational success and achieving organisational mission absent strategic leadership to guide innovation and creativity (Lumpe, 2016). Organisational innovation and organisational leadership are so interdependent that formulating innovative practices in conjunction with organisational leadership tends to largely spell out the success lever of any contemporary organisation (Allal-Chérif et al., 2022). In particular, effective organisational leadership contributes toward a culture of employee innovation, enhances creative problem-solving, and supports generating ideas and dealing with uncertain future scenarios in a fashion conducive to driving the growth, competitiveness, and dynamic capabilities of organisations (Altheeb, 2020). For instance, via means of the effective communication of organisational leadership, all employees may be stimulated to embrace change, welcome paradigm shifts, oppose paradigm paralysis, search for new solutions, and explore the set of creative mechanisms via which such solutions could be implemented both effectively and productively (Berraies and El Abidine, 2019). Moreover, via the assurance provided

by organisational leadership with respect to the availability of necessary resources and the strong presence of organisational support and guidance, employees tend to grow more willing to adapt to new technologies, embrace changing market conditions, promptly respond to customer needs, and proactively deal with possible states of nature (Benet-Martínez et al., 2017). Along these lines, this study empirically examines the impact of organisational leadership on organisational innovation in the Saudi aviation industry, focusing on the mediating roles of employee creativity and organisational culture. By investigating these relationships, the research seeks to provide valuable insights into how aviation organisations in Saudi Arabia can foster innovation through effective leadership the development of creative employees and a supportive organisational culture. The findings will assist organisational leaders in strategically enhancing their innovation efforts, improving competitiveness, and aligning with the broader goals of Saudi Vision 2030.

In view of the preceding, this background of the study is presented in four sections: (1) key concepts and conceptual framework, (2) The relationship between organisational leadership and organisational innovation in Saudi Aviation, (3) The importance of studying the impact of organisational leadership on organisational innovation in Saudi Aviation, (4) The impact of organisational leadership on organisational innovation through the mediating role of employee creativity and (5) The impact of organisational leadership on organisational innovation through the mediating role of organisational culture.

1.1.1 Key Concepts, Conceptual Framework:

1. Organisational Leadership:

Organisational leadership refers to the behaviours, actions, and strategies of leaders within an organisation that influence the overall direction, culture, and performance. In the context of innovation, leadership is vital for creating an environment that encourages experimentation, creativity, and the successful implementation of new ideas (Aboramadan, 2021).

In the Saudi aviation sector, strong leadership is necessary to navigate the complexities of technological advancements, competitive pressures, and regulatory demands while fostering a climate of innovation (Aljohani, 2019).

2. Organisational Innovation:

Organisational innovation refers to the introduction and implementation of new ideas, processes, technologies, products, or services that significantly improve an organisation's capabilities or performance (Afzal et al., 2018).

For the Saudi aviation industry, organisational innovation could encompass a variety of aspects, including technological upgrades, improvements in operational processes, customer service enhancements, or innovative business models (Alharbi et al., 2019).

3. Employee Creativity:

Employee creativity refers to the ability of individuals within an organisation to generate new, useful, and novel ideas that contribute to problem-solving and innovation (Al-Husseini et al., 2021).

Creativity is often the starting point for innovation. In aviation, employees who are encouraged to think creatively can propose new ideas for service improvements, operational efficiencies, and safety protocols, all of which contribute to organisational innovation (AlDhaheri, 2020).

4. Organisational Culture:

Organisational culture refers to the shared values, beliefs, norms, and practices within an organisation that influence how employees behave, collaborate, and innovate (Alblooshi et al., 2020).

A culture that supports risk-taking, collaboration, openness, and creativity is essential for fostering innovation. In aviation, a culture that encourages innovative thinking and allows employees to contribute ideas is key to maintaining competitive advantage (Hassi, 2019).

- **Conceptual Framework:**

The conceptual framework of the study links the constructs of organisational leadership and organisational innovation via the mediating constructs of employee creativity and organisational culture. In particular, the study adopts a mediated model to explore the impact of organisational leadership on organisational innovation, focusing on how employee creativity and organisational culture act as mediators in this relationship. Specifically, the study measures and tests the direct influence of organisational

leadership on organisational innovation and the indirect influences via the mediating mechanisms of employee creativity and organisational culture as shown below:

- (Direct influence) Leadership → Organisational Innovation: Examining how leadership influences innovation outcomes at the organisational level.

- (First indirect influence) Leadership → Employee Creativity → Organisational Innovation: Investigating how leadership stimulates employee creativity, which in turn drives innovation.

- (Second indirect influence) Leadership → Organisational Culture → Organisational Innovation: Exploring how leadership influences organisational culture, which then impacts innovation at the organisational level.

This conceptual framework (as further detailed in figures 1 in section 2.16 and operationalised in figure 2 in section 3.6.1) hinges on the notion that leadership is a key driver of innovation and that its impact is mediated through employee creativity and the organisational culture that leadership shapes.

1.1.2 The Relationship between organisational leadership and organisational innovation in Saudi Aviation:

Organisational leadership is instrumental in driving Organisational innovation, particularly in complex and competitive industries like aviation. (Hassi, 2019). In the context of the Saudi aviation industry, leadership's influence on innovation can be seen in several ways. In Saudi aviation, leadership is instrumental in setting the long-term vision for the industry. For instance, Saudi Arabia's Vision 2030 places a heavy emphasis on economic diversification, including the growth of the aviation sector. Leaders who align the organisation's mission with national goals are likely to drive innovation in areas such as airport infrastructure, digital transformation, and sustainable aviation technologies (Al Hudhaif, 2021). In this vein, visionary leaders inspire a culture of innovation by pushing organisations to think beyond the immediate future and invest in cutting-edge technologies (e.g., AI, big data, and sustainability) (Al Johani, 2019). Leadership that prioritises innovation helps shape the industry's strategies to remain competitive in a global market. Along the same lines, leadership that encourages autonomy and supports creativity cultivates an innovative environment (Alblooshi, et al., 2020). In Saudi aviation, leaders who promote open communication and provide employees with the freedom to explore

new ideas can spark innovation at all levels of the organisation, from operational improvements to new customer service (AlDhaheri, 2020). Effective leaders in aviation must also create an atmosphere where calculated risks are encouraged. Innovations in aviation often require experimentation with new technologies, services, or business models, which might involve uncertainty. Leaders who are willing to take calculated risks and support employees' experiments help drive innovation (AlDossary, 2022). By the same token, Innovation in aviation requires investment in both human capital and technological infrastructure. Organisational leaders in the Saudi aviation sector determine the allocation of resources toward research and development (R&D), new technologies, and skill-building programs for employees. Whether it's adopting advanced baggage handling systems, implementing biometric boarding, or investing in sustainable fuel alternatives, leaders play a key role in facilitating innovation (Aljohani, 2021). Moreover, leadership's ability to establish strategic partnerships, both regionally and globally, enables the organisation to access new ideas, technologies, and expertise. This collaborative approach can significantly enhance innovation. For instance, Saudi aviation leaders might form partnerships with international tech companies to implement digital innovations like AI in flight operations or customer service (Almahamid et al., 2021). In addition, the Organisational structure adopted by leaders can either facilitate or hinder innovation. In many innovative organisations, leaders may opt for a flatter Organisational structure that encourages collaboration and quick decision-making, which is essential in fast-paced industries like aviation. In Saudi Arabia, as aviation companies expand, leaders who embrace agility and decentralise decision-making often enable faster adaptation to market changes and technological advances. It follows that leaders who establish dedicated innovation departments, such as R&D teams or digital transformation units, can provide the necessary infrastructure to support innovation. These support systems create an environment that actively works on innovating processes, improving operational efficiency, and enhancing customer experiences (Baghdadi & Kishk, 2017).

In light of the above, in Saudi Arabia's aviation sector, Organisational leadership is pivotal in shaping the culture, strategic direction, and capacity for innovation. Leaders influence the sector's ability to innovate through visionary thinking, fostering a culture of creativity, investing in resources, encouraging collaboration, and adapting to market needs (Almahamid et al., 2020). Given the significant changes and

developments in Saudi Arabia's aviation industry, particularly as part of the Vision 2030 initiative, strong, forward-thinking leadership will continue to be a critical factor in driving the sector toward a more innovative and sustainable future (Aljohani, 2021).

1.1.3 The Importance of studying the impact of organisational leadership on organisational innovation in Saudi aviation:

Studying the impact of Organisational leadership on Organisational innovation in Saudi aviation is greatly critical for several reasons, especially given the rapid transformation and strategic ambitions in the country's aviation sector. To begin with, Saudi Arabia's Vision 2030 seeks to diversify the economy and reduce dependence on oil, with a significant focus on expanding and modernizing sectors like aviation, tourism, and transportation (Ekore et al., 2020). As the aviation sector is a critical part of this vision, understanding how Organisational leadership influences innovation is vital to ensure that the sector remains competitive, sustainable, and capable of meeting future demands. Leaders in the sector will need to guide organisations through a complex landscape of digital transformation, regulatory changes, and increasing global competition (Gharamah et al., 2018). In addition, Saudi Arabia is actively investing in its aviation infrastructure, including upgrading airports, launching new airline services, and attracting international airlines to the region. Organisational leadership is thus key in driving innovation in this fast-evolving sector, from the introduction of new technologies (e.g., AI, automation, sustainability) to improving customer experiences and operational efficiencies (Khan et al., 2020). By studying the impact of leadership on innovation, researchers can identify the practices that accommodate growth and long-term sustainability in the industry. Moreover, the global aviation market is highly competitive, with leading airlines constantly striving for innovation in fleet management, customer service, technology adoption, and environmental sustainability. Saudi aviation firms need to keep pace with global trends to compete effectively. Understanding the relationship between leadership and innovation can help Saudi aviation companies develop unique, forward-thinking strategies that give them a competitive edge in the international market. Besides, leadership directly shapes Organisational culture, which in turn influences the ability to innovate (Naushad, 2021). In the aviation industry, where high performance, safety, and customer satisfaction are critical, a culture of innovation is essential,

effective leadership may foster an environment where employees feel empowered to contribute ideas, experiment with new technologies, and improve processes (Omira, 2015). Along the same lines, the aviation industry is globally experiencing rapid technological changes, including automation, artificial intelligence (AI), data analytics, and digital customer services. It follows that Saudi Arabia's aviation sector must adapt to these changes, and leadership plays a crucial role in ensuring that organisations adopt the right technologies and integrate them effectively into their operations (Bastola et al., 2021). In the same context, Saudi Arabia's aviation industry faces challenges and opportunities with respect to sustainability and green innovative solutions. Leadership thus plays a pivotal role in guiding organisations toward sustainable practices, from investing in green technologies to adopting more efficient flight operations. It follows that examining how leadership impacts innovation in sustainability helps align Saudi aviation with global environmental standards and supports the country's broader environmental goals under Vision 2030. By the same token, Saudi aviation faces both internal challenges (e.g., Organisational efficiency, and workforce skill gaps) and external challenges (e.g., global competition, regulatory changes, and economic fluctuations) (Baghdadi & Kishk, 2017). Leadership's ability to drive innovation in response to these challenges, whether through operational improvements, strategic partnerships, or adapting to new regulations, may determine how well the sector navigates these pressures. Research in this area may consequently provide insights into how leadership decisions directly influence Organisational resilience and adaptability (Bastola et al., 2021).

Studying the impact of Organisational leadership on Organisational innovation in Saudi aviation is essential for driving the sector's growth, competitiveness, and sustainability. By understanding how leadership influences the culture of innovation, decision-making, technological adaptation, and employee creativity, Saudi aviation can position itself as a regional and global leader. This research not only helps improve Organisational practices but also supports Saudi Arabia's broader economic and development goals under Vision 2030, particularly in transforming the aviation sector into a modern, innovative, and sustainable industry. Studying the impact of leadership on innovation further helps pinpoint the factors that accelerate digital transformation and technological adoption within Saudi aviation organisations. This research helps identify how leadership impacts the culture of innovation and creativity in the organisation.

In Saudi Arabia, it is very evident that the kingdom has been working on its innovation practices across almost all of its key economic and strategic sectors (Ekore et al., 2020; Aina et al., 2019; Al Johani, 2019). In this concern, there are a few considerations with respect to organisational innovation in Saudi Arabia. According to Al Hudhaif (2021) reports that organisational innovation in Saudi Arabia is often driven by the extent to which organisational leadership is considered visionary. This reiterates the notion that organisational innovation often demands articulate and inspiring organisational leadership characterised by clarity of vision, quality of communication, adopting a total quality approach to continuous improvement, encouraging creativity and inventiveness among followers, and embracing an open and flexible attitude to the future and changing circumstances (Al-Husseini et al., 2021). According to Al-Dossary (2022) documents that organisational innovation in Saudi Arabia is further stimulated by the support and the subjective norms accommodated by the surrounding environment. For instance, recently observed higher levels of organisational innovation in Saudi Arabia can be strongly explained in terms of innovation-related and creativity-supportive initiatives advanced via the 2030 vision of the kingdom and the active establishment of and national support for a variety of research and innovation centres that specifically target the creation of opportunities and resources for organisations to elevate the levels of innovation and creativity across the country (Alam et al., 2021). In this vein, Al Suwaidi et al. (2020) relate modern organisational innovation in Saudi Arabia to the extent to which Saudi national organisations may be regarded as collaborative as opposed to competitive. This relationship between organisational innovation and organisational collaboration underscores the notion that meaningful collaboration among national organisations including academic institutes, research centres, and government units and entities is indispensable for an increased level of average organisational innovation in the country (Alharbi et al., 2019). In essence, via meaningful organisational collaboration, organisations typically start gaining access to know-how, innovative ideas, contemporary knowledge and expertise, and adequate funding to materialise innovative initiatives (Alkraiji et al., 2022). Furthermore, Almahamid et al. (2021) contend that organisational innovation in Saudi Arabia is strongly associated with the national digital transformation that is currently taking place and gaining momentum in the country. On this subject, Saudi Arabia was able to create national jobs and provide for a plethora of lucrative and market-driven business and entrepreneurship

opportunities because of dynamically leveraging modern innovative digital technologies and capabilities such as artificial intelligence, personalised learning, intelligent tutoring systems, big data analysis, dynamic analytics, and cloud computing (Alshahrani et al., 2022). Sponsoring the same line of reasoning, Gharamah et al. (2018) maintain that the recent surge in start-up business opportunities, entrepreneurship, and small and medium-sized business transactions was greatly responsible for augmenting overall organisational innovation levels in the country via the intermediate role of a wealth of initiatives including adequate funding, sponsoring proper programs for idea generation, and promoting serious business incubators. Moreover, Khan et al. (2020) maintain that the unprecedented level of organisational innovation currently observed in the country largely reflects recent Saudi government investments in talent management and assuring the competitiveness and innovativeness of the Saudi workforce in general and youth in particular. Such a relationship between organisational innovation and national investments in the workforce in Saudi Arabia underlines the critical role assumed by specialised training, interdisciplinary awareness, continuous education, and employee-level growth prospects in the advancement of innovative problem-solving and creative idea generation. Besides national investments in the workforce, incubating business ideas, and embracing digital transformation, Naushad (2021) notes that organisational innovation in Saudi Arabia is still considered a function of the regulatory environment of the country in terms of the wealth of institutional reforms promulgated primarily by regulatory and standard-setting bodies to facilitate innovative endeavours, protect intellectual property rights, streamline procedural interventions, maintain effective organisational culture dynamics, and enable creative organisational environments.

Based on the preceding, it can be taken that pursuing, implementing, and maintaining organisational innovation in Saudi Arabia all tend to individually, collectively, and even dynamically replicate typical organisational leadership aspects such as communication styles and decision-making processes. Toward this end, Baghdadi and Kishk, (2017) hold that organisational leadership in Saudi Arabia is a rather complex construct that ought to be placed within a multitude of contexts and considerations including national culture and social values. Siambi (2022) explains that the cultural context of Saudi Arabia is governed by hierarchical organisational structures and unquestionable respect for both formal and informal authority. In Saudi Arabia, hierarchical structures and respect for authority are both critical and rather binding

parameters in almost all types of organisations (Rahman and Qattan, 2021). It follows that organisational leadership in Saudi Arabia is hypothesised to exercise humility and higher-level effective communication skills while also practising their nearly absolute authority (Omira, 2015). This is in turn evident via the notion that organisational leadership in Saudi Arabia is greatly expected to recognise, adapt to, and understand the social value of local and generally accepted customs and codes of conduct including, e.g., addressing people by their proper titles and placing adequate emphasis on the set of family and religious values (Naushad, 2021). The cultural context of organisational leadership in Saudi Arabia could also lead Saudi organisations to adopt a style of leadership that is consistent with inspiring and motivating followers toward a common goal. In this regard, effective organisational leadership in Saudi Arabia is observed to engage followers in a variety of ways involving the encouragement of innovation, creativity, and inventiveness, and through the articulation of a compelling vision for the future and the stimulation of their followers into the achievement and materialisation of that vision (Khan et al., 2020). This further goes hand in hand with the fact that the society of Saudi Arabia is a rather collectivist type of society where cultural values largely tend to revolve around mutual collaboration and meaningful teamwork (Gharamah et al., 2018). Organisational leadership in Saudi Arabia thus often promotes an organisational culture of collaboration, teamwork, prudence, loyalty, building trust, and implanting non-trivial bonds between leadership and followers (Al-Yami et al., 2018). This further implies that effective organisational leadership in Saudi Arabia entails that employees and followers are actively involved in almost all phases of the decision-making processes in a fashion that is motivating, inspiring, and well-received by all layers of the organisational hierarchy (Altheeb, 2020). On this subject, Almahamid et al. (2021) reiterate that modern organisational leadership contemporarily observed in Saudi Arabia tends to stress the organisational values of paradigm shift, adaptability, and flexibility. This in fact may purport to the speed via which the business and investment environments are evolving owing to the set of unprecedented economic reforms and structural alterations to macroeconomic policies (Siambi, 2022). Such policies mainly reflect the economic premises of sustainability, continuous learning, global competitiveness, digitisation of economic activities, total quality management, massive investments in breakthrough technology, resource productivity, harmonisation of institutional environments, and diversification of income streams and fundamental economic resources (Al-Husseini et al., 2021).

In view of the above presentation in terms of introducing the variables of organisational leadership and organisational innovation while highlighting the Saudi organisational context, a significant impact of organisational leadership in the aviation industry in Saudi Arabia may be hypothesised. This is so since organisational leadership is shown to greatly influence and motivate employees in the industry by offering them specific direction purpose and motivation as well; similar to other industries, leadership gives all these elements to the individuals allowing them to function in a particular direction to accomplish the missions while improving the organisation also. According to Almahamid et al. (2021), the Saudi economy is greatly dependent on the air transport sector while the statistics regarding this showed that the aviation industry KSA contributes around $36.5 billion to the country's GDP. The evidence further shows that the country has been aiming to further expand and diversify its aviation industry for a better future for the economy. For this reason, it is important to notice that leadership along with innovation are important constructs for the development of the aviation industry in Saudi Arabia because the General Authority of Civil Aviation (GACA) in Saudi Arabia showed that there is tremendous growth in the number of passengers by 2019. This means it can be said that the industry needs impressive development in the choices made for the leadership as well as the innovation practices because the future is very bright for Saudi Arabia in regard to its aviation sector.

Saudi Arabia will build one of the world's largest airports, according to Crown Prince Mohammed bin Salman bin Abdulaziz, to boost the kingdom's ambitions to become a global hub for trade and tourism. Riyadh's King Salman International Airport will have six parallel runways and is expected to contribute 27 billion riyals ($7.18 billion) annually to Saudi Arabia's non-oil gross domestic product. The airport will help increase Saudi Arabia's annual passenger traffic from the current 29 million to 120 million by 2030 and 185 million by 2050, and Saudi Arabia's aircraft traffic from 211,000 annually to more than 100 million flights.

With sustainability at its core, the new airport will achieve the leadership in energy and environmental design (LEED) Platinum certification by incorporating the latest green initiatives into its design and will be powered by renewable energy, according to the Saudi Press Agency. The development, to be built by the Public Sector Investment Fund, will include the existing terminal, named after King Khalid, capable of handling 3.5 million tonnes of cargo by 2050.

Leadership roles as well as different leadership styles are part of KSA's overall business sector; however, it is also significant to notice that there is a development in contemporary leadership within the Kingdom of Saudi Arabia (Ahmed et al., 2022). According to various authors, many private and public sector organisations in the Kingdom of Saudi Arabia mainly value seven leadership competencies (inspiration, integrity and honesty, solving and analysing issues, results-driven, communication, collaboration, and building relations) because they assume these competencies as very critical for the success of the organisations as well as the respective sectors (Al Suwaidi et al., 2020; Alruwaili, 2018). Among these leadership competencies, it is also noticeable that these play a vital role in the overall building and growth of the organisations while these competencies include subordinate empowerment, communication within the organisation, change management, talent development, cross-organisational influence, self-awareness, and learning agility as well (Gray, 2021). On the other hand, it is also significant to argue that the leadership within the different sectors in Saudi Arabia is adopted on the basis of the needs as well as the challenges in the contemporary settings so that the needs can be fulfilled along with overcoming the challenges. In general, the people within the organisations of KSA usually work in teams while having shared goals or it can also be stated that individuals within the companies tend to accomplish certain common objectives while common facilities are also provided to them to the part of leadership as practised in the KSA organisations. From a business perspective, the leadership styles followed in KSA-based organisations have varied individual beliefs and perceptions; however, it is perceptible that leadership development is in process because it has been seen over the last few years that there is a prominent employee career development by the organisational leaders while not considering the gender-based roles (Maroukian and Gulliver, 2022). In KSA-based organisations, leadership accountability became very important as the overall business sector has been changing in terms of strategies, human resources, and talent as well as many other aspects. Mainly, mentoring is also a part of leadership which is not usually practised in Saudi Arabian organisations. As mentioned by Naushad (2021), it has been seen that there are various issues in relation to the male and female counterparts because it is dependent on the leadership to balance the gender roles while not preferring the gender-based roles in specific. Eventually, it is viewed in Saudi Arabia that leadership is found to be aligned with having a very strategic approach for the individuals because talent management and

human resources are said to be the most important components of the leadership perception employed in the KSA-based organisations. In KSA-based organisations, leadership roles are found to be very instructional in terms of the approach because there is also a cultural involvement in the leadership practices; it is also observed that KSA-based organisations run along strong and significant hierarchical lines. Normally, leaders or managers are found very instructional and specific in terms of the fact that subordinates only need to follow the instructions while conveying the decisions of the leaders down the chain for further implementation. On the other hand, leadership has been viewed as transforming in the KSA-based organisations such as the aviation industry within Saudi Arabia and has also been changing in regard to the decisions and goal accomplishments. With regards to the aviation industry of KSA, the industry has been predicted to grow to a great extent by the next few years while tremendous growth has already been noticed in the last few years within the aviation sector; however, all of this success has brought through transforming the leadership patterns as well as amalgamating the innovation as the core and critical landscape for the aviation industry. Due to the changing business needs and consumer requirements, the civil aviation industry in KSA has brought significant changing patterns in the sector while the industry is now heavily dependent on innovation because of the successful growth and development along with the needs of the future in the aviation (Bekdash, 2019).

On the contrary, innovation is also another major facet which cannot be ignored when it comes to a business as well as the service industry. Within the case of Saudi Arabia, it has been noticed that the government has now focused on the knowledge-based economy (KBE) while the country has come in this transitioning process from the natural resources economy. In this means, the knowledge-based economy can be described as an economy in which the focus remains on the generation as well as the distribution and implementation of knowledge while knowledge is also considered a key engine for growth along with the production of wealth (Zygiaris, 2022). Innovation is also declared as the most critical unit for improving the effectiveness along with the functional abilities in the aviation sector. Such as, it is seen that the aviation sector practices changes and innovation in air traffic control through various improvements and this leads to value creation. Similar operations have now been a significant part of Saudi Arabian Airlines while the airlines are more divergent towards more sustainable fuels, conversion into digital systems, energy storage, as

well as the mitigation of environmental concerns. All of these mentioned innovative solutions have been added to the KSA's aviation sector since the aviation industry always requires to create value for the customers as well as for the environment. This is the reason that innovation is majorly practised in the aviation sector of Saudi Arabia (Faidah et al., 2022). Regarding the alignments of Alarfaj and AlGhowinem (2018), it is viewed that innovations are now part of the civil aviation industry within Saudi Arabia because the country targets $100 billion investment in the aviation industry for which innovation is considered the key through which the settled objectives can be accomplished. Nevertheless, Saudi Arabian airlines, as well as the aviation sector, are now getting involved in cloud technologies to make their mark in the innovation line. Because it is equally important to consider innovation along with competent leadership roles in aviation. Sustainable innovations, digitisation of airports, as well as predictive maintenance are some of the major innovation shifts undertaken by the Saudi Arabian aviation industry. Referring to the innovation in KSA, it is noteworthy that it is nearly impossible to live without innovating the particular segments of the business at regular intervals; therefore, researchers have been focusing on the innovation practices as believed and implemented in the Saudi Arabian business sectors. Saudi Arabia has also made its mark as one of the nations which are continuously focusing on emerging innovative practices to be developed in every field as in the aviation industry. Aviation is said to be observed as an important catalyst for the growth and development of the Saudi Arabian economy; therefore, the industry has been revolutionising with efficient innovative practices such as in customer services as well as in other aviation aspects (Althaqafi, 2020). For the KSA's aviation business, the country is committed to innovation while the innovation practices are used to create more sustainable as well as enjoyable and personalised end-to-end experiences for consumers. In particular, the business of aviation has also been developed in Saudi Arabia because the country has focused on establishing its digital competency along with performing well for leading the employees in the aviation industry (Al Hudhaif, 2021). Aggressive digital transformation is also another one of the major and significant innovations by the aviation industry of KSA as it mainly provides relief to the customers along with the fact it also eases many of the functional activities. Most importantly, the innovation in aviation within the KSA has brought various imperative changes over the recent years because the industry has been growing and developing while the tourist foot traffic is also increasing within

KSA due to its embarking economy. Therefore, it has become impossible for the aviation industry to combat the most contemporary challenges without innovating; however, the major focus of the KSA's aviation remains on customer services because all of the innovation practices have a particular aim such as to offer sustainable, pleasurable, and personalised travelling experiences to the customers locally as well as internationally too (Ekore et al., 2020).

In view of the preceding and given the rich theoretical and applied content in the study of organisational leadership and organisational innovation, this study is designed to empirically examine the impact of organisational leadership on organisational innovation in the aviation industry in Saudi Arabia. The study adheres to the traditional scientific paradigm and maintains all relevant ontological, epistemological, and axiological assumptions. The study adopts the theoretical framework advanced in (Setiawan et al., 2021) where the impact of organisational leadership on organisational innovation is channelled through the mediating influences of employee creativity and organisational culture. Toward this end, the study applies the typical protocol to empirical analysis with intervening mechanisms and reports a significant impact of organisational leadership on organisational innovation and this relationship is consistent with the theoretic prediction with regards to the mediation of employee creativity and organisational culture. The study further reports that though the mediation of employee creativity and organisational culture is both well-pronounced and statistically significant at all traditional levels, the relationship between organisational innovation and organisational leadership is short of the full mediation criterion. This suggests that the mediating influences of employee creativity and organisational culture may be necessary but not sufficient conditions when channelling the impact of transformational leadership on organisational leadership. Throughout, the study employs internally consistent and validated data collection instruments as evidenced by the standard criteria and thresholds upheld in the empirical literature. The rest of this introduction presents the research problem, research objectives, research questions, research significance, researcher's position, and presentation of the study.

1.1.4 The Impact of Organisational leadership on Organisational innovation through the mediating role of employee creativity:

Organisational leadership can significantly impact Organisational innovation, and employee creativity often plays a crucial mediating role in this process (Agbim, 2013). To understand this relationship, it's essential to explore how leadership behaviours and practices complement an environment where creativity thrives, which in turn facilitates innovation (Ahn, 2017). Organisational leadership, especially, transformational leadership, is a primary driver of innovation (Al Harbi et al., 2019). Transformational leaders are known for their ability to inspire and motivate employees, fostering a shared vision for the future and encouraging new ways of thinking (AlDhaheri, 2020). This leadership style can encourage risk-taking and experimentation, which are essential for innovation (Al-Ghazali, 2020). It provides vision and direction, ensuring employees understand the strategic importance of innovation while culturally a supportive environment for creative thinking by empowering employees to contribute new ideas without fear of failure (Alharbi, 2021). Moreover, leadership behaviour directly affects the creative climate within an organisation where leaders provide employees with autonomy and ownership over projects, allowing individuals to think outside the box, and create an environment conducive to creativity (Alhashedi et al., 2021). Moreover, Leaders who ensure employees have the necessary resources, time, and training are better positioned to facilitate creative output and create opportunities for employees to share ideas and collaborate (Al-Husseini et al., 2021). When employees feel empowered, supported, and valued, they are more likely to be creative, offering fresh ideas that contribute to innovation within the organisation (Aljohani, 2021). It follows that employee creativity may act as a mediating mechanism between leadership and Organisational innovation in several ways (Alrowwad & Abualoush, 2020). Creative employees generate novel ideas that serve as the foundation for innovative practices, products, or services (Alruwaili, 2018). In addition, creative employees approach problems with original solutions, which can lead to process improvements or new technologies. Besides, creativity often leads employees to proactively search for ways to innovate in their roles, contributing to overall Organisational innovation (Borins, 2002). Furthermore, creativity sponsors an ability to adapt to changing market demands or external pressures, which is critical for maintaining long-term innovation (Braun et al., 2013). However, once creativity is cultivated within the workforce, it is the

responsibility of Organisational leadership to channel this creativity into Organisational innovation (Cai et al., 2019). This means that, while creativity leads to new ideas, innovation involves taking those ideas and turning them into practical, marketable solutions (De Silva et al., 2021). Leadership must then provide the necessary structure, resources, and support to turn creative ideas into actual innovations while ensuring that the creative output of employees aligns with the organisation's broader strategic goals, such as improving customer experience, enhancing operational efficiency, or developing new products and services (Dodge et al., 2017). To reiterate, Organisational leaders are always predicted to create mechanisms for ideas to flow from employees to decision-makers, ensuring that innovation is not stifled at the grassroots level and that creative contributions are seen as valuable and aligned with Organisational goals (Felix et al., 2019).

In conclusion, Organisational leadership affects Organisational innovation through the mediating role of employee creativity by creating an environment that nurtures, encourages, and empowers employees to think creatively (Hamour, 2023). When leadership supports and fosters a culture that values creativity, employees are more likely to contribute innovative solutions, ultimately driving Organisational growth and competitiveness. Indeed, Without employee creativity, even the most visionary leadership would struggle to produce meaningful innovation (Hasel & Grover, 2017). Employee creativity thus bridges the gap between leadership's vision and actual innovation, transforming strategic goals into tangible outcomes (Hassi, 2019).

1.1.5 The Impact of Organisational leadership on Organisational innovation through the mediating role of Organisational culture:

Organisational leadership plays a pivotal role in driving Organisational innovation, and Organisational culture can act as a significant mediator in this relationship. How leadership influences culture, and how this culture, in turn, fosters or hinders innovation, are crucial to understanding the dynamics of innovation within an organisation (Maamari & Saheb, 2018). Organisational leaders shape and define the culture within an organisation through their behaviours, values, and decisions. Their leadership style, priorities, and actions significantly influence the norms, values, and expectations within the organisations (Martinez-Moyano, 2006). Leaders articulate the vision for the organisation and model the values that support innovation, such as openness, risk-taking, collaboration, and continuous learning. For instance,

transformational leaders encourage creativity and envision an innovative future, setting the tone for the entire organisation (McGraw, 2022). Likewise, leaders who communicate openly about goals, challenges, and opportunities foster a culture of trust and transparency. When employees understand the larger vision and how their contributions fit into that vision, they are more likely to engage in innovative thinking (Mitrovic et al., 2019). Along the same lines, leaders who empower employees by giving them the autonomy to make decisions and take risks encourage a culture that values and supports innovation. Empowerment helps employees feel confident in experimenting with new ideas without fear of failure. It follows that leadership sets the tone for innovation by recognising and rewarding innovative behaviours. A culture that celebrates new ideas, problem-solving, and experimentation motivates employees to continually engage in innovative efforts (Naranjo-Valencia et al., 2016). For instance, leaders who promote teamwork and cross-functional collaboration help establish a culture that values diverse perspectives, which is essential for generating innovative solutions. In this view, Organisational culture mediates the impact of leadership on innovation by creating an environment in which innovation can thrive or stagnate. Since Organisational culture includes shared values, beliefs, norms, and practices that guide how employees work, interact, and solve problems, the culture created by leadership influences the degree to which employees are motivated to innovate and how easily innovation can be implemented across the organisation. Moreover, a culture that embraces risk-taking and views failure as an opportunity for learning will likely produce more innovation (Mcgraw, 2022). When leaders promote this type of culture, employees feel safe to explore new ideas without the fear of negative consequences if their efforts fail. Still on the same page, a culture that is open to change and adaptability allows for faster implementation of new ideas and innovative practices. Leadership that encourages flexibility and openness fosters a culture that can quickly pivot and adopt new technologies, processes, or market strategies. Innovation thus thrives in cultures that encourage continuous learning, knowledge-sharing, and feedback a collaborative culture where employees are encouraged to share their insights, experiences, and expertise leads to the development of new ideas and solutions that contribute to innovation (Benet-Martinez et al., 2017). Organisational culture also influences how much support employees feel they have when developing innovative ideas where a culture that actively supports experimentation, provides the resources needed to test ideas, and allows time for

creative thinking can accelerate innovation. Indeed, Organisational culture aligns employees' behaviours and decisions with the broader Organisational strategy, which is crucial for innovation to be meaningful and impactful. If the culture supports the strategic goals of the organisation (such as sustainability, digital transformation, or customer-centric innovation), then innovation efforts are more likely to align with and drive these goals forward (Mcgraw, 2022). Toward this end, leaders who demonstrate innovation in their actions such as embracing new technologies, supporting unconventional ideas, and experimenting with new ways of working—may send a strong signal that innovation is valued. Leaders who promote a growth mindset (the belief that skills and abilities can be developed) help to create a culture where employees view challenges as opportunities to learn and improve and such a mindset encourages employees to push the boundaries of their roles and contribute to the innovation process (Crede et al., 2019). By the same token, leaders who foster psychological safety where employees feel safe to express novel ideas and challenge the status quo without fear of negative consequences tend to play a critical role in creating a culture that promotes continuous innovation. Leaders can then reinforce a culture of innovation by integrating innovation-related metrics into the Organisational goals (Maamari & Sabeb, 2018). When innovation is recognized as a critical factor in the organisation's success, employees are more likely to engage in innovative thinking, and the organisation becomes more committed to pursuing innovative opportunities. Once leadership creates a supportive culture, the culture itself becomes the engine driving innovation. An innovation-oriented culture allows ideas to be generated and implemented more quickly. When culture supports agility and flexibility, organisations can adapt to changes in the market or technology faster, turning creative ideas into real innovations more efficiently. Since innovative cultures are typically collaborative, allowing employees from different departments or functions to work together, organisations can create more diverse and groundbreaking innovations by combining expertise from different areas (Martinez-Moyano, 2016). Leadership, culture, and innovation, however, are not one-way processes but rather an interconnected cycle. Leaders influence the Organisational culture, which in turn shapes employee behaviours and attitudes toward innovation. As innovation is implemented, successful outcomes reinforce the value of creativity and innovative thinking, strengthening the Organisational culture even further. Throughout, A strong,

innovation-driven culture supports continuous improvement and innovation, leading to long-term sustainability and competitive advantage (Mcgraw, 2022).

In light of the discussion above, Organisational culture is hypothesised in this study to serve as a mediating mechanism between leadership and Organisational innovation by shaping the environment where creativity, risk-taking, and problem-solving can thrive. Effective leadership establishes a culture that encourages open communication, knowledge-sharing, collaboration, and support for innovation. In turn, a strong innovation-oriented culture drives Organisational creativity and the implementation of new ideas, ultimately leading to Organisational innovation. By understanding the role of culture as a mediator, organisations can adopt leadership strategies that cultivate an environment in which innovation is promoted (Mcgraw, 2022).

1.2 Research Problem:

The aviation sector in Saudi Arabia is undergoing a significant transformation, driven by national ambitions outlined in Vision 2030 to diversify the economy and modernise industries, with aviation as a key pillar. As the sector faces increasing competition, technological advancements, and evolving consumer expectations, Organisational innovation has become critical for sustaining growth and maintaining competitiveness. While Organisational leadership is recognised as a primary driver of innovation, its impact on Organisational innovation in the Saudi aviation industry remains underexplored. More specifically, there is limited understanding of how leadership practices influence innovation outcomes and how employee creativity and Organisational culture mediate this relationship. Toward this end, leaders shape Organisational direction and culture, yet it is unclear how their leadership styles and decisions foster an innovative environment, nor how creativity within the workforce and a supportive Organisational culture influence the implementation of innovative practices. Therefore, this research seeks to investigate how Organisational leadership impacts Organisational innovation in Saudi aviation and to examine the mediating roles of employee creativity and Organisational culture in this relationship. Understanding these dynamics is crucial for developing leadership strategies that enhance innovation, cultivate creativity, and promote a culture that supports innovation, ultimately contributing to the sector's competitiveness and alignment with Saudi Arabia's broader goals for economic diversification and sustainable development. It follows that this study is significant as it will provide insights for aviation leaders, policymakers, and organisations in Saudi Arabia to implement more

effective leadership practices that stimulate innovation, enhance employee creativity, and build a culture conducive to long-term growth and competitiveness in the aviation sector.

On one side, organisational leadership in the aviation industry typically demonstrates exceptional leadership abilities given the objectives of their various companies, aircraft fleets, and the challenges, expectations, and aspirations of the many people whose lives are dependent on the success of the aerospace sector (Alblooshi et al., 2020). Aviation leadership is therefore dedicated to the goal of building powerful teams by making investments in the professional development of their employees and cultivating an environment in which existing skills and knowledge can be used (Stoker et al., 2001). This further entails following and putting into action a leadership strategy that will enable the company to achieve and sustain long-term growth, both in terms of its size and the number of employees it employs (Slimane, 2015). On the other side, innovation is essential to the continued existence, expansion, and prosperity of the aviation industry and its companies (Alblooshi et al., 2020; Dugan, and Komives, 2011). Several studies have investigated the impact that executive organisational leadership has on the level of innovation that exists within their company's goods and services (Aljohani, 2021; Altheeb, 2020). Such studies are typically concerned with well-researched leadership styles developed throughout the 1980s and 1990s where leaders were often characterised by charismatic managerial styles as well as transactional practices (Dugan, and Komives, 2011; Antonakis, 2012; Mittal, 2015).

Irrespective of the leadership style, however, the aviation industry has the potential to launch the innovation process by refocusing resources on creative outputs. In this vein, several attempts were made in the context of leadership and innovation in the aviation industry (Borins, 2002; Slimane, 2015; Sethibe and Steyn, 2015; Burpitt, and Bigoness, 1997; Alblooshi, et al., 2020; Stoker, et al., 2001). Such attempts reveal the body of research that investigates the relationship between creative problem-solving and leadership in the aviation business (Alblooshi et al., 2020; Sethibe and Steyn, 2015; Dugan, and Komives, 2011). Furthermore, not only few research papers have been published in the aviation context, but also the findings and recommendations of that scant body of research were seldom put into practice (Slimane, 2015). Toward this end, this current study is designed to answer the gaps in the literature by complementing extant research with empirical evidence with respect to the true nature

of the relationship between organisational leadership and organisational innovation with Saudi Arabian data randomly drawn at the aviation industry.

Categorically, leadership is an important part of the aviation sector and it has been seen that the Civil Aviation industry of Saudi Arabia has become one of the most prominent sectors which has had immense growth and development over the last few years (Alblooshi et al., 2020). Due to the extremely constructive aspects as viewed in the KSA's aviation industry, it is very significant to understand what sort of leadership styles are currently practised in the aviation sector and followed by the airlines in Saudi Arabia, and how the relationship between aviation leadership and aviation innovation be strengthened with one particular style of organisational leadership (Shkvarya et al., 2019). Indeed, the importance of the aviation sector to Saudi economy and aspirations can hardly be overstated (Aljohani, 2021; Altheeb, 2020). It has been noticed in recent years that the aviation industry has been characterised as the catalyst for the Saudi Arabian economy while the government has also been investing to a great extent in this particular sector because of its competency in the international as well as in the local market (Al Hashmi et al., 2020). However, one of the major aspects identified from this is that the aviation sector focuses on innovation to its core while it is considered very critical for the aviation industry in Saudi Arabia to remain innovative in some aspects including sustainable innovation practices, energy storage practices, more digital options and their utilisation for the customers, and many other elements. Therefore, it can be said that the growth and development in KSA's aviation exist due to the amalgamation of both leadership and innovation practices as the most important variables (Al Hashmi et al., 2020). Without these two elements, the growth and development of the aviation sector are nearly impossible (Tirth et al., 2020). Nonetheless, previous researchers also did not fill the research gap concerning the influence of leadership styles on innovation practices mainly in the aviation industry (Aljohani, 2021). In this view, this present research contributes to filling the empirical research gap in the literature by documenting empirical evidence with respect to the impact of organisational leadership on organisational innovation in the civil aviation industry in the Kingdom of Saudi Arabia. The study also investigates the extent to which the relationship between Saudi aviation leadership and organisational innovation is mediated by employee creativity and organisational culture as instructed by the theoretical framework of Setiawan et al., 2021).

1.3 Research Main Aim, and Specific Objectives:

Research main aim:

The main aim of this study is to empirically examine the impact of organisational leadership on organisational innovation in the civil aviation industry in Saudi Arabia. Toward this end, the study entails the following specific objectives:

Research specific objectives:

1. To report which particular style of organisational leadership is adhered to in the Civil Aviation Industry of the Kingdom of Saudi Arabia.
2. To empirically examine the impact of that particular style of organisational leadership on organisational innovation in the Civil Aviation industry in the Kingdom of Saudi Arabia.
3. To empirically examine the extent to which the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA is mediated by the influences of employee creativity and organisational culture. This is as instructed by the theoretical framework of Setiawan et al. (2021).
4. To provide suggestions and recommendations for the management of the civil aviation industry in the Kingdom of Saudi Arabia to strengthen the relationship between organisational leadership and organisational innovation, and integrate innovation through implementing effective leadership.

1.4 Research Questions:

The research questions in this study are presented as follows given the positive research design and the theoretical framework of Setiawan et al. (2021):

1. Which leadership style is observed in the civil aviation industry in KSA?
2. What is the extent to which observed organisational leadership in the civil aviation industry in KSA impacts organisational innovation?
3. What is the extent to which the intervening mechanism of employee creativity mediates the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA?
4. What is the extent to which the intervening mechanism of organisational culture mediates the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA?

1.5 Research Significance:

Studying the impact of organisational leadership on organisational innovation in the aviation industry fundamentally contributes toward the formation of a comprehensive understanding of how leadership influences innovation processes, outcomes, and organisational dynamics. In this regard, the significance of this study tends to revolve around the extent to which its insights and conclusions may instruct aviation stakeholders in Saudi Arabia to drive positive change, implant a culture of innovation, and achieve sustainable growth and success in an increasingly dynamic and competitive industry. Studying the impact of organisational leadership on aviation innovation can thus help identify best practices and strategies that enhance safety protocols, streamline operations, advance eco-friendly solutions, minimise environmental impact (and carbon footprint), and improve overall efficiency in the aviation sector. For instance and considering the rapidly evolving setting of Saudi aviation, organisational leadership that underscores a culture of creativity, empowerment, and continuous improvement can drive innovation initiatives that maintain a competitive edge in terms of differentiating the organisation of Saudi aviation from its competitors, attracting customers, and driving business growth. Studying the impact of leadership on aviation innovation may further help identify leadership behaviours and approaches that enhance organisational resilience, facilitate adaptive responses to challenges, and mitigate potential threats to safety and security. By the same token, understanding how leadership influences innovation in Saudi aviation can provide insights into effective leadership strategies that inspire and empower employees to contribute their ideas, skills, and expertise towards driving innovation and achieving organisational goals. Moreover, understanding the role of leadership in Saudi aviation may go a long way when ensuring compliance with regulatory frameworks and industry standards while enhancing a culture of innovation that adapts to changing regulatory landscapes and technological advancements.

1.6 The Researcher's Positionality:

One of the epistemological assumptions of the social positivism/empiricism paradigm is that reality is observed, documented, and reported irrespective of the personal position of the researcher (Ng, 2013). Being a researcher and working as a training manager, this research will be beneficial for me to develop more strategies to train employees of the organisation to be more innovative with new skills and capabilities. Furthermore, from my perspective as a training manager, I present the study's

conclusions as empirical evidence based on the study sample and research questions. Toward this end, the theoretical framework adhered to in this study employs organisational leadership to explain organisational innovation via the mediating influences of employee creativity and organisational culture.

1.7 Presentation of the Study:

This study is presented following typical quantitative research via a total of six chapters: an introduction, a literature review, research methods, results and findings, discussion and recommendations and conclusions and limitations section. The researcher has provided an overview of the background of the study, the research issue, the research aim and objectives, the research questions, and the relevance associated with the research subject in the first chapter. The second chapter, which is a review of the relevant literature, focuses on the pieces of evidence, both empirical and theoretical. This chapter is presented in terms of defining the main study variables of organisational leadership and organisational innovation, reviewing leadership styles reported in the extant literature, presenting the contextual details of the relationship between organisational leadership and organisational innovation in the aviation industry, and discussing the roles assumed by employee creativity and organisational culture in mediating the relationship between organisational leadership and organisational innovation in the aviation industry. The research methods and data analysis chapter presents the principal components analysis (PCA) for validity and reliability assessments of the data collection instrument, reports descriptive statistics, and presents the empirical study and model estimations. In addition to the empirical study and model estimation, the study also reports robustness checks using PLS reflective measurement, structural, and bootstrapping models. The discussion and recommendations chapter relates the empirical findings of the study to the extant literature and identifies recommendations for the KSA aviation industry. The last chapter is the conclusion and limitations chapter concludes the study with a summary of results, concluding remarks, and limitations encountered in the study.

Chapter 2: Literature Review

2.1 Introduction:

This chapter reviews how leadership influences innovation in the aviation sector. The chapter begins by providing a theoretical explanation of several leadership theories, the significance of leadership in the civil aviation industry, and how leadership may foster innovation.

The primary goal of the literature evaluation is to pinpoint the knowledge gaps that the current study will fill. This chapter is presented in terms of defining the main study variables of organisational leadership and organisational innovation, reviewing leadership styles reported in the extant literature, presenting the contextual details of the relationship between organisational leadership and organisational innovation in the aviation industry, and discussing the roles assumed by employee creativity and organisational culture in mediating the relationship between organisational leadership and organisational innovation in the aviation industry.

The review also focuses on leadership styles evident in the aviation industry and establishes a rationale via which transformational leadership is likely to be evident in such an industry. In this regard, the transformational leadership characteristics of attribute idealised influence, behavioural idealised influence, inspirational motivation, intellectual stimulation, and idealised consideration may all individually and combinatorically act as logical precursors to organisational innovation in the aviation industry. In this fashion, the review chapter documents literature that directly recognises that transformational leadership is one of those leadership styles, mainly in the context of Saudi Arabia. In essence, transformational leadership is associated with inspiring the employees within the organisations to become more creative as well and their innovative ideas also improve with respect to their decision-making.

Besides organisational innovation, the chapter also reviews the two mediating mechanisms of employee creativity and organisational culture identified in the theoretical framework of this study. Such review relates each mediating mechanism to organisational leadership. For instance, transformational leadership is supported in the extant literature to be associated with inspiring, motivating, and creatively establishing and maintaining a supportive and inclusive environment where employees feel empowered and safe to express their ideas and take risks. For organisational culture, this review supports that organisational success is contingent on organisational culture where such culture is, by definition, founded on a collection

of beliefs that are held and accepted by the majority of the organisation's members and be supported by both strategy and structure. On the subject of the relationship between organisational leadership and organisational innovation, the outcomes of this review are consistent with organisational innovation hinging on the extent to which organisational leadership encourages followers, promotes continuous learning and honest and open communication, and provides followers with adequate resources. It follows that this review defends the notion that a particular leadership style or other organisational elements like cooperation, collaboration, and learning may be chiefly responsible for organisational innovation in a fashion that in turn translates into improved performance of the organisation as a whole. Toward this end, the empirical results to be reported in this study positively complement the extant literature by showing that perceptions of the employees in the aviation industry in Saudi Arabia concerning the underlying leadership style of their organisation are consistent with transformational leadership. This is as opposed to other styles of organisational leadership including the transactional style and the passive-avoidant style.

The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation is mediated by the levels of employee creativity and organisational culture. Moreover, this literature review chapter visits the theoretical framework of this study, which is advanced in Setiawan et al. (2021). Such theoretical framework reiterates the primary result of this study that transformational leadership is the one style adhered to in the aviation industry in Saudi Arabia.

2.2 Leadership:

Leadership is the foundation for a bright future in business. This relates to an individual or a team that focuses on positive growth and development at the world level for an organisation. The quality of a leader is to identify the opportunity, show their advanced creativity, the best understanding of market analysis, put innovative thoughts and ideas in minimising risk, be fair and faithful in bonding and contracts in high profit, have experienced many workshops and business events to set the goal and achievements, to co-operate with team members and appreciate them for their creative work in success. Moreover, leadership quality is very important in modern business, this provides many new dimensions and is most desirable for business settings and to take the business high (Wee et al., 2023).

The leader is synonymous with imagining, innovating, progressing, inventing, resourcefulness, having a dynamic vision, and completeness in the point of creative and innovative business. Leadership is the first step to driving and managing the company if we see it on the global level so it is the responsibility of the leader to take the company to a higher rank with multiple benefits. Many perspectives are led by the leader (Bagheri, 2012; Juyumaya and Torres, 2023).

In this contemporary world, having only leadership ability in managers is not enough to sustain in the market while achieving the goals of profit, development and sustainability of organisations. Now managers must have abilities to explore the new opportunities which are available around them and handle the existing and upcoming risks. Hence, it is said that a manager having all these qualities can be considered a leader and entrepreneur. In the broader concept, leadership is a person who can take risks, seize opportunities and pursue innovation and creativity (Taylor, et al., 2014; Lin, 2023). Leaders always know their environment, therefore; they explore new opportunities for creating values for employees' business, management, other relevant stakeholders and overall society. The main motive of a leader is a desire to generate various opportunities such as social, environmental and economic aspects (Rehbock et al., 2022).

A leader is a person who directs a group of working individuals and gains commitment from this group to follow the desired path to achieve the defined goals of the organisation (Hamour, 2023). The term leadership has been considered from different angles and concepts. Traditionally, a leader is a set characteristic that is owned by the leader towards the certain phenomenon that comes from relation with groups (Fernando, et al., 2014). Generally, leadership is defined as “the process of influencing employees of an organisation to achieve organisational goals” (Esmer and Dayi, 2014). According to Ger and Heiss (2023), leadership is the ability to influence others while taking specific action towards goals and targets. However, Dubrin (2012), said also leadership is the capability of creating support and confidence that are required to gain organisational goals among individuals. Many authors have defined definitions related to leadership, however; it is defined as characteristics to influence a group of individuals towards a specific objective by guiding them in the right direction (Kumar, and Sharma, 2018). It is said that steering people to achieve a goal that needs different persuasion skills. It is a social phenomenon with a purpose. A group of individuals or employees in the organisation always need a person who

can lead them. Leaders and groups mutually create values for their business and become a trademark (Esmer, 2011). Although, many approaches try to define leadership, however; research conducted on leadership has been classified into three categories "Great Man Theory", "Traditional theories and New Modern theories". In recent years, various leadership styles such as "ethical leadership", "moral leadership", "cultural leadership" and "visionary leadership" have appeared that depend on the research related to leadership dimensions (Sisman, 2014; Northouse, 2022). According to (Gordon, 2011) also defined the traditional approaches as the Trait approach, Behavioural approach, and Contingency approach (Paracha, et al., 2012; Ronald, 2014; HU, 2023). The trait approach explains common qualities that are needed for performing the task of leadership. On the other hand, the behavioural approach also discusses to leader's mindset and behaviour using various perspectives. Finally, the contingency approach also talks about the variation in behaviour that depends on different situations and circumstances (Aksel, 2008; Dugan, and Komives, 2011; Freeman and Fields, 2023).

2.2.1 Leadership Theories:

Leadership is a multifaceted phenomenon that has captivated scholars and practitioners for centuries. Understanding what makes an effective leader and how leadership influences organisational outcomes has been a continuous pursuit, leading to the development of numerous theories. This literature review aims to provide a comprehensive overview of prominent leadership theories, tracing their evolution from early trait-based approaches to contemporary relational and global perspectives.

- **Early Theories: The Quest for Inherent Qualities and Behaviours:**

1. Great Man Theory (19th Century): One of the earliest informal approaches to leadership, the "Great Man Theory," posited that leaders are born, not made. This perspective suggests that certain individuals possess inherent heroic qualities, charisma, and divine inspiration that set them apart as natural leaders. Often focusing on historical figures and military leaders, this theory implied that leadership was an innate characteristic that could not be learned or developed Carlyle, 1841). While largely discredited by later research for its lack of scientific rigour and exclusionary nature, it laid the conceptual groundwork for subsequent trait-based approaches by attempting to identify distinguishing characteristics of leaders.

2. Trait Theories (Early 20th Century): The earliest leadership theories focused on identifying inherent personal qualities or "traits" that distinguished leaders from non-leaders. This perspective posited that leaders are born, not made. Early research, such as that by Stogdill (1948), initially found inconsistent results, suggesting that no universal set of traits guarantees leadership success across all situations. However, later meta-analyses by Zaccaro et al. (2004) revitalised trait theory by emphasising the importance of a constellation of traits (e.g., intelligence, self-confidence, determination, integrity, and sociability) in combination with situational factors. While acknowledging the limitations of a purely trait-based view, contemporary thought recognises that certain individual differences can predispose individuals to leadership roles and enhance their effectiveness.

3. Behavioural Theories (1940s-1960s): Shifting focus from *who* leaders are to *what* leaders do, behavioural theories emerged, suggesting that leadership can be learned and developed. Pioneering studies from Ohio State University and the University of Michigan identified key leadership behaviours:

- **Ohio State Studies:** Identified two broad categories: "Initiating Structure" (task-oriented behaviours like defining roles, organising work, and setting goals) and "Consideration" (relationship-oriented behaviours like showing concern for subordinates' feelings, building trust, and fostering teamwork) (Fleishman, 1953).
- **University of Michigan Studies:** Distinguished between "Employee-Oriented" (focus on interpersonal relations and employee needs) and "Production-Oriented" (emphasis on technical aspects of the job and goal accomplishment) behaviours (Likert, 1961).

The core insight of behavioural theories was that effective leadership involves a balance of task and relationship focus, although the optimal balance could vary. These theories laid the groundwork for leadership training and development programs.

- **Contingency and Situational Theories: The Importance of Context:**

4. Fiedler's Contingency Theory (1960s): Fiedler (1967) introduced the idea that leadership effectiveness is contingent upon the match between the leader's style (task-oriented or relationship-oriented, measured by the Least Preferred Co-worker scale - LPC) and the degree to which the situation provides the leader with control and influence ("situational favorableness"). This theory proposed that task-oriented leaders perform best in very favourable or very unfavourable situations, while

relationship-oriented leaders are more effective in moderately favourable situations. Fiedler's theory was groundbreaking in highlighting the critical role of situational factors, although its practical application can be complex.

5. Hersey and Blanchard's Situational Leadership Theory (1970s): This highly practical theory (Hersey & Blanchard, 1969) suggests that effective leaders adapt their leadership style to the "readiness" (competence and commitment) of their followers. It identifies four leadership styles: telling (high task, low relationship), selling (high task, high relationship), participating (low task, high relationship), and delegating (low task, low relationship). The leader's role is to assess follower readiness and adjust their approach accordingly, moving from more directive to more supportive and ultimately delegating styles as followers mature.

6. Path-Goal Theory (1970s): Developed by House (1971), the Path-Goal theory is rooted in the expectancy theory of motivation. It proposes that leaders' main function is to clarify the "path" for followers to achieve work goals and make the journey easier by providing support and removing obstacles. Leaders can adopt different styles (directive, supportive, participative, achievement-oriented) depending on situational factors (follower characteristics and environmental contingencies). This theory emphasises the leader's role in motivating followers and enhancing their performance.

- **Categorisation of Leadership Theories: Traditional vs. Modern:**

The evolution of leadership thought can broadly be categorised into "Traditional" and "New Modern" theories, reflecting a shift in focus and complexity. Traditional theories, encompassing the early trait, behavioural, and contingency approaches, primarily sought to identify universal characteristics, behaviours, or situational matches for effective leadership. These theories lay foundational understanding by focusing on the leader's attributes and direct influence. In contrast, New Modern theories, emerging from the 1980s onwards, delve into more nuanced aspects of leadership, such as inspirational influence, relational dynamics, ethical considerations, and the broader organisational and cultural context. They often explore the transformational impact of leaders and the collaborative nature of leadership in complex environments.

- **New Leadership Theories: Inspiration, Transformation, and Relationships:**

7. Transformational Leadership (1980s-Present): Emerging from the work of Burns (1978) and further developed by Bass (1985), transformational leadership is arguably the most influential leadership theory of the past few decades. Transformational leaders inspire and motivate followers to achieve extraordinary outcomes by appealing to their higher ideals and values. Key components include:

- **Idealised Influence (Charisma):** Leaders act as role models, inspiring admiration and trust.
- **Inspirational Motivation:** Leaders articulate a compelling vision and communicate high expectations.
- **Intellectual Stimulation:** Leaders challenge assumptions, encourage creativity, and foster innovation.
- **Individualised Consideration:** Leaders provide personalised support, coaching, and mentoring.

In contrast, **Transactional Leadership** involves an exchange process where leaders clarify roles and tasks and provide rewards for goal accomplishment (Bass, 1985). While transactional leadership is necessary for routine operations, transformational leadership is often associated with higher levels of performance, commitment, and organisational change.

8. Charismatic Leadership (1970s-Present): While often overlapping with transformational leadership, charismatic leadership, as conceptualised by House (1977), focuses on the leader's ability to inspire devotion and enthusiasm through their personality and vision. Charismatic leaders possess strong self-confidence, a clear vision, and exceptional communication skills, enabling them to articulate a compelling future and persuade followers to commit to it. However, the potential for narcissistic or unethical behaviour in charismatic leaders has also been a subject of scrutiny (Conger & Kanungo, 1987).

9. Leader-Member Exchange (LMX) Theory (1970s-Present): Unlike earlier theories that viewed leadership as a general influence process on a group, LMX theory (Dansereau et al., 1975; Graen & Uhl-Bien, 1995) posits that leaders develop unique, dyadic relationships with each of their subordinates. These relationships can range from high-quality "in-group" exchanges (characterized by trust, respect, and mutual obligation) to low-quality "out-group" exchanges (marked by more formal, transactional interactions). High-quality LMX relationships are associated with

numerous positive outcomes, including higher job satisfaction, organisational commitment, and performance.

- **Contemporary and Emerging Perspectives:**

10. Authentic Leadership (2000s-Present): Authentic leadership emphasises the importance of leaders being true to themselves, their values, and their beliefs. Authentic leaders are self-aware, transparent, principled, and balanced in their decision-making (Avolio et al., 2004). They foster trust and genuine relationships with followers by demonstrating integrity and consistency between their words and actions. This theory gained prominence in response to corporate scandals and a renewed focus on ethical leadership.

11. Servant Leadership (1970s-Present): Originally proposed by Greenleaf (1970), servant leadership prioritizes the needs of others – employees, customers, and the community – above the leader's self-interest. Servant leaders focus on empowering, developing, and supporting their followers, ultimately leading to their growth and flourishing. Key characteristics include listening, empathy, healing, awareness, persuasion, conceptualisation, foresight, stewardship, commitment to the growth of people, and building community (Spears, 2004).

12. Global Leadership and Cross-Cultural Perspectives: As organisations operate in an increasingly interconnected world, understanding how leadership varies across cultures has become crucial. The GLOBE (Global Leadership and Organisational Behaviour Effectiveness) project, for instance, has identified both universal leadership attributes and culturally specific preferences (House et al., 2004). This research highlights that effective leadership styles are not universally applicable and must be adapted to different cultural contexts.

13. Shared Leadership and Distributed Leadership (2000s-Present): In increasingly complex and knowledge-intensive environments, traditional hierarchical leadership models are sometimes insufficient. Shared leadership involves leadership responsibilities being distributed among multiple individuals within a team or organisation, rather than residing solely with a single leader (Pearce & Conger, 2003). Distributed leadership is a broader concept where leadership is viewed as an emergent property of interactions between individuals and their environment, rather than a fixed role (Spillane, 2006). These approaches recognise that leadership can come from various sources and is not confined to formal positions.

The evolution of leadership theories reflects a growing understanding of the complexity of leadership. From early attempts to identify inherent traits, the field has progressed to recognising the importance of leader behaviours, situational contingencies, inspirational influence, relational dynamics, ethical considerations, and cultural nuances. Contemporary leadership scholarship continues to explore new dimensions, such as the role of emotions, technology, and sustainability in shaping leadership practices. While no single theory offers a complete explanation of leadership, collectively, these diverse perspectives provide a rich framework for understanding, developing, and practising effective leadership in various contexts. Future research will likely continue to integrate these various perspectives, seeking more holistic and dynamic models that account for the ever-changing demands on leaders in a globalised and complex world.

Leadership theories have evolved significantly, reflecting changing understandings of what makes effective leaders. Early theories argued that leadership is an innate quality, with specific individuals predisposed to lead due to inherent characteristics. Such theories provide a foundational structure for much earlier research, but they - by and large - lack empirical support and fail to account for situational variables. Traits that make someone a leader in one context may not be relevant in another. Hence, here the research focuses on specific leadership styles and organisational and country contexts that influence and promote individual employees' creativity. This research assumes that appropriate leadership styles can be enhanced through training and development and that leaders can assess how their own transactional leadership style can promote innovation for the company's benefit, whilst acknowledging the complex internal and external environments.

2.2.2 Contemporary styles of Organisational leadership:

Organisational leadership can vary widely depending on the leader's values, goals, the context of the organisation, and the needs of the followers (Aboramadan et al., 2021). Some of the most common and widely cited leadership styles include transformational leadership, transactional leadership, laissez-faire leadership, participation leadership, servant leadership, and visionary leadership (Al Johani et al., 2019; Afzal et al., 2018).

Transformational leadership Inspires and motivates followers to achieve extraordinary outcomes by focusing on shared vision and values (Al Harbi et al., 2019). Such a

style encourages innovation and creativity and helps build personal and professional growth while promoting positive change and employee empowerment (Al Johani et al., 2019). It follows that transformational leaders act as role models by demonstrating high ethical standards (Al-Husseini et al., 2021). They provide a clear and compelling vision for the future and encourage employees to think critically and challenge the status quo while offering individualised support and mentorship (AlDhaheri, 2020). In this respect, the most distinguishing feature of transformational leadership is its Focus on transformation, long-term goals, and development, both for individuals and the organisation (Alblooshi et al., 2020). Another common leadership style is that of transactional Leadership with its orientation on maintaining the status quo and achieving Organisational goals through structured tasks and rewards (Alsughayir, 2014). Such a style relies on clear directives and emphasizes the exchange process (rewards for meeting targets, punishment for failure) (Altheeb, 2020). Transactional leadership thus works within existing structures, systems, and processes to achieve efficiency. It provides clear expectations and rules, zeroes in on performance-related rewards and penalties, reacts to problems rather than preventing them, centres on routine tasks, maintains order, and reinforces existing practices with rewards and punishments (Al-Yami et al., 2018). As opposed to transformational and transactional styles of leadership, laissez-faire leadership takes a hands-off approach and gives employees considerable autonomy to make decisions (Andriani, 2022). Such leadership trusts employees to manage their work and make decisions independently, provides minimal guidance and support unless requested, delegates responsibility and allows employees to set their own goals (Antonakis, 2012). Laissez-faire leaders thus rarely interfere with day-to-day operations. They provide resources or guidance only when necessary or when asked, and always offer the most freedom to employees, with minimal supervision or intervention from leadership (Asbari et al., 2021). Other common leadership styles observed in organisations can be separated by autocracy, stewardship, charisma, and vision (Antonakis, 2012). On one hand, autocratic leaders make decisions unilaterally without seeking input from others (Avolio et al., 2019). Such leaders possess a higher level of control and authority, with minimal autonomy given to followers, and tend to emphasize clear direction and close supervision (Adler & Laasch, 2020). They make all decisions, communicate directives with little or no input from team members, direct employees on what to do, how to do it, and when to do it, and hardly delegate significant decision-making responsibilities (Al-Khasawneh

et al., 2021). On the other hand, democratic leadership also referred to as participative leadership, encourages participation from team members in decision-making processes. Such leaders seek input from employees and value their opinions in shaping Organisational direction while cultivating collaboration and shared responsibility (Al-Malki & Juan, 2018). Participative leaders thus involve team members in problem-solving and decision-making. They promote open communication and feedback, empower employees by giving them a voice in decisions, and emphasise collective decision-making and collaboration, with leadership that is more inclusive and consultative (Alsughayir, 2014). Closely related to participative leadership, servant leadership focuses on serving others and prioritising the well-being and development of team members (Altheeb, 2020). Servant leaders, therefore, act as facilitators, supporting and empowering their teams. They promote ethical behaviour, humility, and a commitment to the growth of followers. Such leadership style puts the needs of others first and helps people develop and perform at their best, listens actively to followers' concerns and needs, accommodates leadership by example and supportive work environment, and emphasizes serving others, ultimately ensuring employees' personal growth and well-being are prioritized (Al-Yami et al., 2018). Furthermore, while charismatic leaders use their charisma, charm, and persuasiveness to inspire and motivate followers while hinging heavily on personal appeal and energy to lead, visionary leaders provide a clear, forward-thinking vision that inspires and guides the team (Andriani, 2022). They reiterate setting a long-term direction for the organisation while motivating employees by showing them how their work contributes to a bigger purpose (Guillem, 2019). Visionary leaders thus communicate a compelling and innovative vision for the future, support team members to align their personal goals with the Organisational vision, and often create excitement and enthusiasm around future possibilities (Hallinger, 2018).

In view of the preceding, different styles of Organisational leadership can be distinguished by their core principles, behaviours, and how they interact with their followers (Hamour, 2023). Transformational leaders inspire and empower change, while transactional leaders focus on maintaining efficiency through reward and punishment systems (Harms & Crede, 2010). Autocratic leaders control decision-making, while democratic leaders foster collaboration. Servant leaders focus on the well-being of their followers, and laissez-faire leaders provide autonomy and minimal

intervention (Hartzel & Gilbert, 2018). Understanding these styles helps identify which leadership approach aligns with Organisational goals, culture, and the needs of employees (Hasel & Grover, 2017).

2.3 Leadership in The Aviation Industry:

According to their viewpoints and expertise, some scholars have defined leadership differently (Berraies and El Abidine, 2019). Leadership in the civil aviation industry should be dependable, inspire followers, and direct them toward achieving the organisational goal at all times (Hattke and Hattke, 2019). Employees will gradually stray from their safety practices due to a lack of desire, creating low safety behaviour. Low safety culture, poor leadership, and poor managerial practices at the operational level were some of the key contributing causes for several significant incidents that occurred in the 20th century (Ayiei et al., 2021). The establishment of an appropriate safety climate in an aviation organisation is the prime responsibility of aviation leaders. The attitudes and behaviours of the workforce establish an environment for aviation safety. The implementation of initiatives that prioritise job satisfaction, supervisor trust, and coworker trust could improve the safety atmosphere and safety culture (Mukhezakule and Tefera, 2019).

With respect to Saudi Arabia, leadership has been noticed as the democratic aspect because individuals prefer to be part of the overall decision-making process; however, it has also been observed that normally the business organisations work in the form of committees because all the decisions are meant to be taken under the conductance of the committee members (Shkvarya et al., 2019). Further on, Ulrichsen (2015) observed that the working environment within Saudi-based organisations specifically in the aviation industry is found to be heavily dominated by teamwork as well as the committee while there are certain levels in which these committees work in which involvement of different deliberations and decisions are categorised. Highlighting the work culture within Saudi Arabian organisations, it has been enlightened by Gharamah et al. (2018) that some of the major work cultures are followed within the organisations including respect, promotion of people, and confidence which are given to the individuals within the organisations. Mainly, the study brought by Altheeb (2020) significantly addressed that people in KSA-based companies are found to be involved in such practices which motivate employees on the organisational level while making the working environment engaging so that values are exhibited with dominance.

On the other hand, Aljohani (2021) focused on Saudi Airlines while undertaking research highlighting the leadership patterns within the aviation industry which are observed as very effective with respect to the performance of the individuals as an impact of the leadership pattern followed. The study mainly comprehends that the Saudi Aviation industry as well as many of the airlines have been practising democratic leadership to preserve the motivation of the employees working in the organisations. The study found that democratic leadership is followed in Saudi airlines because the main focus of such organisations remains on raising the awareness levels of the individuals regarding leadership practices and their impact. It has also been addressed in the study that this sort of leadership style is capable of increasing human and social communications with the subordinates; however, the study also concluded that when the leaders contribute to raising human and social communications this leads towards greater performance efficiency among the employees. On the contrary, Al Hashmi et al. (2020) also referred to leadership patterns as follows in the aviation industry of Saudi Arabia. The study referred to leadership practices in the direction of employee engagement and talent management as the best practices for human capital management. It has also been found that employee engagement is considered the foremost element in Arab countries as in the aviation sector; therefore, the leadership is followed in line with the fact that employees are engaged in the best possible ways while also letting them be aware of the organisational decisions as well.

2.4 Leadership Styles:

Leadership styles significantly influence organisational effectiveness, employee satisfaction, and overall performance (Adams et al., 2025). Over the decades, various leadership styles have been identified and studied, each with distinct characteristics and impacts (Aboramadan et al., 2022). Understanding various leadership styles is thus crucial for organisations aiming to enhance performance and employee satisfaction (Fischer & Sitkin, 2023). While each style has its advantages and limitations, effective leaders often adapt their approach based on situational needs and organisational goals (Feng & Adams, 2023). For instance, autocratic leadership is characterized by centralized decision-making, where leaders make decisions unilaterally without much input from subordinates (Fischer & Sitkin, 2023). This style can lead to quick decision-making but may suppress creativity and employee morale (Khan et al., 2016). In contrast, democratic leadership encourages participation and

collaboration, fostering a sense of ownership among team members and often leading to higher satisfaction and productivity (Khan et al., 2016). As opposed to autocratic leadership, transformational leadership involves inspiring and motivating followers to exceed expectations by focusing on vision, change, and innovation. Leaders employing this style often exhibit idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration (Bass & Riggio, 2006). Transactional leadership, on the other hand, is based on a system of rewards and penalties to manage performance, emphasising structured tasks and clear objectives (Judge & Piccolo, 2004). Servant leadership, however, prioritises the needs of employees, emphasising empathy, listening, and stewardship. Leaders adopting this style aim to serve their team members, fostering a supportive environment that can lead to increased trust and collaboration (Greenleaf, 1977). However, critiques suggest that servant leadership may lack clarity in its definition and measurement, and its applicability across different organisational contexts remains debated (Adam's et al., 2025). In this respect, greatly emphasising clarity, task-oriented leadership focuses on the completion of tasks, setting clear goals, and maintaining productivity. In contrast, relationship-oriented leadership emphasises interpersonal relationships, team cohesion, and employee well-being (Döring et al., 2024). Studies indicate that while task-oriented leadership can enhance efficiency, relationship-oriented leadership often leads to higher employee satisfaction and team cohesion (Tabassi et al., 2024). Most importantly, organisational leadership, in general, tends to play a pivotal role in fostering innovation within organisations where different leadership styles can either promote or hinder innovative behaviours among employees (Demircioglu & Van der Wal, 2021). Along these lines, studies have consistently shown that transformational leaders positively influence innovation by encouraging creativity and challenging existing norms (Bass & Riggio, 2006). Transformational leaders create a vision that inspires employees to innovate and contribute to organisational change. Moreover, while transactional leadership may ensure efficiency and goal attainment, its impact on innovation is mixed (Nugroho et al., 2025). Some studies suggest that transactional leadership may stifle creativity due to its emphasis on routine and compliance (Kesting et al., 2015). However, when combined with transformational elements, it can provide a stable foundation that supports innovative efforts (Nugroho et al., 2025). Furthermore, by prioritising employee needs and encouraging participation, servant leaders build trust and

empower employees to take initiative (Greenleaf, 1977). This empowerment can lead to increased creativity and the implementation of innovative ideas (Al-Husseini et al., 2019). By the same token, inclusive leadership has been linked to higher levels of employee engagement and innovation, as it encourages diversity, openness, and the sharing of unique ideas and collaborative problem-solving (Randel et al., 2018). Distributed leadership may also enhance organisational innovation by leveraging the collective expertise and creativity of employees through empowering individuals at all levels while sponsoring the development of a sense of ownership and a culture of proactive innovation (Bolden, 2011). In contrast, autocratic leadership is characterised by centralised decision-making and limited employee input (Fischer & Sitkin, 2023). This style often hinders innovation, as it suppresses creativity and discourages the sharing of new ideas (Lewin et al., 1939). Employees under autocratic leaders may feel constrained, leading to reduced motivation to engage in innovative behaviours (Fischer & Sitkin, 2023).

In general, most leaders modify their approaches to suit the circumstances. So leadership is context-dependent as they gain more experience and engage with their team, a leader's leadership style will evolve the longer they have been in charge. To become a better leader, a leader must be aware of where they now stand. The leader is in charge of a system that is dedicated to providing aviation goods or services that have an impact on safety. A diverse range of talents and personal qualities go into effective leadership. The strategies, characteristics, and behaviours a leader uses to guide, motivate, and manage their teams are referred to as their style of leadership. Along with maintaining stakeholders' expectations and the welfare of their team, a leader's leadership style influences how they develop their strategy, carry out their objectives and respond to changes (Lutte, 2019).

In relation to the leadership styles followed in the Saudi Arabian public and private sectors, Omira (2015) underwent research in which it has been highlighted that it is very well known in Saudi Arabia that the majority of organisations are run by means of operating under the democratic leadership style. The study also stated that democratic leadership is also very common in the private sector and firms while public sector firms do not have active participation in democratic leadership due to which the sector has also been failing adversely. In contrast, it has also been revealed by Alsughayir (2014) that firms in the KSA also follow visionary leadership in contemporary settings. Mainly, the study examined that this sort of leadership also

aligns with the innovation process while the leaders further innovate while having strategic future visions which are very evident in the contemporary private sector business organisations within Saudi Arabia. However, the study further discussed that leadership styles have a direct and major impact on overall organisational performance because employees or subordinates tend to follow the leaders and their decisions. This is the way the research explored that visionary leadership style mainly drives commitment among the subordinates along with trust, high levels of cohesion, as well as motivational levels. Focusing on the leadership styles mainly in the airlines operating in the Arab countries, Matira and Awolusi (2020) also examined that many of the airlines are found to have a distinctive leadership perspective but it has been seen that the majority of the airlines prefer to employ democratic leadership as the core and the most critical aspect of the industry. It is due to the reason that subordinates of the leaders always get involved with the organisational goal accomplishment practices when they perceive their importance as part of the organisational team. Therefore, the study referred that Arab airlines accommodate the culture of values within the organisational practices because this is enlightening in the case of followers as motivation is increased to a great extent.

2.4.1 Transformational Leadership:

This style of leadership constantly strives to transform and enhance capabilities. Tasks and timelines may be given, and supervisors using this approach may ask staff members to continuously push their limits (Virgiawan, Riyanto and Endri, 2021). The majority of growth-oriented businesses frequently use this kind of leadership approach (Mukhezakule and Tefera, 2019). Change and transformation are highlighted in a leadership strategy known as transformational aviation leadership. Leaders who want to inspire their followers by harnessing each person's potential to achieve more than they ever thought possible adopt this tactic. This sort of leadership may be quite effective in organisations looking to make substantial transitions or transformations. Transformational aviation leaders always consider what has to be done to accomplish the organisation's objectives. They are at ease with change and realise that it is essential for the success of the firm. Additionally, they make an effort to make sure that their adherents can accept change and adjust to it. Every one of their followers has potential, according to transformational aviation leaders. To help their followers attain their greatest potential, they work to hone each person's unique skills and qualities (Ayiei et al., 2021).

Concerning the importance of transformational leadership, Saad Alessa (2021) has done a review on the effectiveness of transformational leadership for public universities within the Kingdom of Saudi Arabia. It has been studied that there are four dimensions in which the transformational leadership style is practised and functions within the public sector universities in Saudi Arabia. In relation to those dimensions, it has been found that public sector universities mainly practice transformational leadership to have an ideal effect, along with individual consideration, inspirational motivation, and intellectual stimulation. The study further revealed the positive effects of transformational leadership on organisational performance such as the knowledge management practices that have been found to be improved with the functioning of transformational leadership in the public universities in Saudi Arabia. In contrast, another research conducted by Alhashedi et al. (2021) examined the impact of transformational leadership on organisational performance in the KSA context. The study considered the gold industry for this purpose while showcasing that transformational leadership is directed to influence organisational performance positively it has also been found that transformational leadership is a great source of psychological ownership which further speculates employee motivation and employee commitment towards organisational objectives. As per the findings, the study concluded that transformational leadership has been proven to be constructive when it comes to employee motivation and employee engagement mainly in the gold industry of Saudi Arabia.

Al Harbi et al. (2019) found in an empirical exploration that there is a positive relationship between transformational leadership and employees' creativity for which the study employed the context of Saudi Arabia. However, the public sector organisations have been selected for the conduct of this research in which it has also been discussed that workplace relationships are found to be improved when people are given preferences in terms of asking about their perspectives. The study also accumulated that transformational leadership is also a great source of providing intrinsic motivation to the employees such as employees being directed to perform their duties while engaging them in their operational capabilities so that their intrinsic motivation can be improved. Furthermore, it has been identified by Alzahrani (2019) that Saudi Arabian organisations majorly in the public sector always prefer to operate in leadership which encourages teamwork as well as communication. Therefore, the study recognised that transformational leadership is one of those leadership styles,

mainly in the context of Saudi Arabia, which inspires the employees within the organisations to become more creative as well and their innovative ideas also improve with respect to their decision-making. According to the reference given in the study of Abdulrazaq et al. (2020), it has been noticed that leaders develop a particular working environment because creativity and innovation require a specific dimension among the employees which is provided by transformational leadership; nevertheless, the study has been conducted by using the illustration of the KSA pharmaceutical sector. In the study, it has been focused that the atmosphere related to innovation and creativity is made by the transformational leaders by means of their behaviours such as changing their behaviours towards having intellectual thinking while also giving equal chances to their subordinates and followers. The study also stated that this criterion differs from sector to sector but the study concludes that transformational leadership can be stated as the most influential style for higher employee creativity and organisational innovation.

Components of Transformational Leadership:

Transformational leadership consists of four distinct elements:

1. Intellectual stimulation: Transformational leaders inspire creativity among followers in addition to challenging the status quo. The leader urges followers to look into novel approaches and fresh learning chances.
2. Individualised acknowledgement: Supporting and motivating followers is another aspect of transformational leadership. Transformative leaders maintain open lines of communication to encourage supportive relationships so that followers open up and share ideas and so that leaders can quickly acknowledge the distinctive contributions of each follower **(**Hassi, 2019).
3. Inspiring motivation: Transformational leaders are able to communicate a clear vision to their followers. Their leaders can inspire others to have the same drive and motivation to achieve these objectives.
4. Idealised influence: The transformative leader serves as an example for subordinates. They imitate the leader and internalise their values because they respect and trust them.

This kind of leader tends to lead effective and devoted teams. They devote a lot of time and effort to the team and genuinely care about the team's success. Due to the high level of devotion that transformative leaders may engender in their followers, staff turnover tends to be quite low (Parvin, 2019).

Parveen and Adeinat (2019) investigated the effects of transformational leadership in terms of decreasing work-related stress among bank employees in Saudi Arabia. In the research, the employees have been undertaken as the research participants who reflected on the effects of transformational leadership as positive for their work-related stress and tiredness as well. It has been explored in the study that when the employees are dealt with positivity while addressing their work schedules along with the relaxing time then employees are found to be more competent in terms of work. However, the study resulted in proving the positive effects of transformational leadership in decreasing work-related stress among employees of Saudi banks. Consequently, Rizan et al. (2020) researched similar aspects of transformational leadership but undertook Southeast Asia's airline industry as the research context. The study reviewed that transformational leadership is said to be very effective if processed in the airline or aviation industry. It is because the airline or aviation industry refers to the services provided to the customers for which the companies must make their employees competent. It is necessary, according to the study, to motivate the employees as much as possible with the purpose of making them aware of the customer needs and safety as well. Therefore, the study found that transformational leadership has been effective in terms of making employees motivated mainly in the service industry.

Effects of Transformational Leadership:

Aviation transformational leaders motivate their followers to accomplish amazing outcomes. Members of the group are inspired to take on leadership roles in addition to being urged to participate. This is something that empowered and responsive leaders can achieve. Each person's aims become more closely connected with the group's overall purposes because each group member's achievement advances the objectives of the organisation. Researchers have discovered that this type of leadership can benefit the team (Gürlek and Çemberci, 2020). Transformational leaders provide their staff with the chance to take on new challenges in addition to encouraging them to work for a common goal and boosting employee self-esteem and contentment. By pushing them outside of their comfort zones, they aid in their teammates' self-discovery. The development of the company is immediately impacted when an employee's growth plateaus. To ensure that their team members continue to develop, good transformational leaders keep them interested in their work and willing to try new things (Parvin, 2019).

Employees' feelings of well-being were higher when they perceived their employers to have more transformative leadership. Even after the researchers took into account well-being-related moderating variables like job stress, education, and age, the effect persisted as being statistically significant.

Transformational leaders are aware that developing solid and healthy relationships is the first step in creating a strong business. Honest and open communication is the foundation of all healthy partnerships. Building relationships within a team reduces internal tensions and fosters the team's abilities. In the end, transformational leaders support the team's unity and the eradication of toxic relationships (Hechanova and Caringal, 2018).

Employee retention is essential for an organisation's success, in part because locating and training new employees is so expensive, and in part, because a high turnover rate can harm team morale and productivity. Transformational leaders frequently have more success in keeping employees than other common leadership styles because they raise employee morale and help them find personal fulfilment (Aboramadan et al., 2021). Instead of approaching their position as a dictatorship, they typically adopt an inspirational approach to win the respect and allegiance of their team members. As a result, workers respect and trust their boss and are less likely to consider quitting**.** Transformational leaders are adept at creating new ones when necessary. Their charisma enables them to sell their teammates on the idea and win their support. The majority of the time, transformational leaders are enthusiastic and happy, which has a favourable ripple effect on others around them. Their actions and effective communication services inspire the workers. The capacity for motivation and effective communication go hand in hand. Employee engagement is hampered by poor communication (Karami et al., 2019).

Transformational leaders provide an example of the conduct they wish their subordinates to exhibit. A transformational leader not only talks the talk but also gains the respect and trust of their team. These leaders can identify the team's needs and assist the group in satisfyingly achieving their goals, which, on a bigger scale, promotes the expansion of the company.

Moreover, Delegating major tasks and missions to team members is strongly associated with transformational leadership style. It loosely translates to "let them do" and is one of the least directive leadership styles in aviation. As a result, the transformational leadership style is thought to be somewhat hands-off. This kind of

leadership has faith in the ability of the followers to perform their responsibilities (Wua et al., 2021). Transformational leaders do not micromanage or get too involved in offering suggestions or criticism. Instead, delegation executives in the civil aviation industry encourage and support their staff to use their initiative, resources, and knowledge to accomplish their goals. If team members are capable and take ownership of their tasks, this can be a successful leadership style. Delegation, however, can also result in conflicts between team members that can break up or divide into groups. It can be particularly challenging for new staff to adjust to this style of leadership or for staff members to comprehend who ultimately has the power and is accountable for the results. Therefore, it is crucial to maintain control over this leadership style.

Transformational leadership is thus aware of each direct employee's skill set. By allowing each team member to take charge of their portion of a project, transformational leadership can produce better outcomes when the team is highly talented, self-motivated, and capable of working independently.

Delegating effectively helps leaders foster a culture that values each employee's contribution (Al Johani, 2019). As a result, team members have a sense of worth for their work. It motivates people to pursue their interests and inner drives to produce positive outcomes. Workers have the freedom to design their workspace, establish routines that suit them, and adopt a special strategy that increases production. Employees frequently have the chance to use their unique talents and make decisions about their jobs when their managers use a delegative leadership style. Additionally, employees might be able to identify various task-solving strategies that play to their unique abilities. This can frequently lead to greater workplace flexibility, better employee happiness, and a more positive business culture. Additionally, it can lessen disciplinary actions, which might enhance relations between managers and employees (Karami et al., 2019).

Re-examining the different leadership styles, Al Johani (2019) also focused on the importance and consequences of delegative leadership while considering the Saudi Arabian Educational Institutes. This means the study elaborated that there can be some areas in every sector where there is a need to allow people to understand the situation while making decisions on their perceptions while also considering the overall situational aspects. It has also been stated that educational institutes have different scenarios for which effective decision-making is required; however, it can

also be said that it is not necessary to have similar conditions in the education context because conditions differ over time. For this reason, the study found delegtaive leadership a more productive leadership style which has a positive impact on the teachers' attitudes and behaviours to make decisions. Considering the research of Bastola et al. (2021), the success or failure of the aviation industry has been determined by conceptualising different factors that can affect the industry. The research studied that leadership holds a particular position among the factors which affect the aviation industry; the study also illuminated that delegative leadership is not suitable for the overall aviation industry while it can be said that this leadership is positive to be adopted by the aircrew members especially the pilots because the scenarios cannot be same every time.

Transformational leadership is also highly consistent with participating leadership (Wua et al., 2021). Here, Participative leadership, also known as democratic leadership, is a leadership approach that encourages managers to include their staff in the decision-making process and listen to them (Siambi, 2022). To effectively use this leadership style, leaders must be inclusive, skilled communicators, and, most crucially, able to distribute power and responsibility (Tudor et al., 2018). When a leader in the aviation industry leads in a participative manner, responsibility and teamwork are encouraged. This typically leads to a team's collaborative effort to identify problems and propose improvements rather than placing blame at the feet of specific individuals (Adler and Laasch, 2020). In the past, a wide range of aviation leaders from different industries have commonly adopted this leadership style (Bastola, 2020). The fact that working procedures have changed and teams have become more autonomous makes this leadership style more difficult. A participative leadership style is frequently linked with spontaneous, honest, and open communication. This can be especially difficult to maintain when working remotely or with virtual teams. It is frequently preferred to use participatory leadership since it fosters employee trust. Empowering them and encouraging them to speak up about key issues will show the team how valuable they are (Guillem, 2020).

When given a say in how the business is run, employees feel personally responsible for its success (Adler and Laasch, 2020). Employee morale is still high because employees value the opportunity to participate in company decision-making. When workers are aware that their actions have a direct impact on workplace regulations,

they will also play a more proactive part in enhancing working conditions (Bastola, 2020).

There are several options available when employees are encouraged to voice their opinions on business-related topics. The workers must be deeply immersed in how the business runs to participate in decision-making for it. Employees who are allowed to participate in leadership can use their imagination to design workflows that are more effective and help the business run more smoothly (Hallinger and Hammad, 2019).

Relatively to the other sectors, Siambi (2022) focused on the aviation industry of Saudi Arabia while sharing that participative leadership has been seen as having undisputable importance because it is highly positive with respect to assertive communication. The research substantiated that the participative approach of leaders is also linked with innovative behaviours among the employees such as the participative behaviour of employees encouraging the subordinates or followers to face the challenges in their stability. The study also recommended that it is required for the aviation industry to have holistic leaders having a combination of different styles and patterns in their leadership because the aviation industry cannot be dependent on any of the above-mentioned leadership styles.

Employees who are led in a participative manner have access to more than just the chance to increase their pay by doing well. It offers employees the ability to actively shape the company's future success. Employees are more likely to stick with a company if they can participate in its expansion and see their ambitions come to fruition. By doing this, the leaders increase staff retention and lower turnover expenses. It is typical for employees, especially high achievers, to be competitive in the workplace. While a healthy sense of competition can increase productivity, excessive competition can lead to sly manoeuvres, backstabbing, and other disruptive conduct. However, when employees are involved in decision-making, the atmosphere frequently changes to one of collaboration. Workers view their coworkers as associates working toward shared objectives that will benefit everyone, as opposed to considering them as rivals (Tudor et al., 2018).

Policies and choices made by consensus will be more readily accepted by staff. This lessens the opposition that new company policies will encounter and hastens the process of putting new concepts into practice. By participating in the process of developing and approving new corporate rules, employees are given a personal

investment in their success, which aids the business in making quick adjustments to new policies (Adler and Laasch, 2020).

2.4.2 Transactional Leadership:

In aviation, transactional leadership always gives priority to the particular transaction between the followers and leaders (Alrowwad and Abualoush, 2020). In the aviation sector, transactional leadership is based on social learning and social exchange theories. The transformational leadership style outperforms the transactional leadership style in terms of performance. Transactional leadership, often known as management leadership, is a style of leadership that emphasises rewards and consequences. This leadership style emphasises structure heavily because it assumes that employees may lack the motivation to complete their work. Using this reward-based approach, the leader sets particular goals or tasks for their teams (Bastola, 2020). Furthermore, leaders are clear about how their teams will be recognised (or faulted) for their accomplishments. Although incentives can come in a variety of shapes and sizes, they typically include some form of monetary compensation, such as cash or a bonus. The goal of this "give and take" leadership approach is to follow established routines and processes effectively rather than to overhaul an aviation business that is built on innovation. Transactional leadership establishes the duties and obligations of each employee. However, it may lead to lower returns if employees are always aware of the worth of their jobs. Therefore, incentives must match up with corporate goals and are reinforced by other forms of appreciation (Talplacido et al., 2022).

Effects of Transactional Leadership:

This management approach, which is based on praise and reprimand, is successful in encouraging staff to contribute effectively to the team. These exist for two causes. First, the employee is motivated to work even harder to fulfil deadlines and meet or even surpass quota by the incentive that awaits them if they contribute to the organisation because they are aware that their efforts will not go unnoticed. Second, using this leadership strategy acts as a reminder to employees that management is paying attention to them, is serious about getting the best output possible from them, and that any mistakes made or performance that falls short of expectations will result in discipline (Hechanova and Caringal, 2018).

As research is scarce concerning the leadership importance in the aviation industry within Saudi Arabia, research has been selected to be reviewed which has been done

with respect to the Saudi Arabian hospitals by Al-Dossary (2022). The researcher reviewed different leadership styles and their impacts on work engagement as well as on the commitment of employees towards the organisational goals. Nonetheless, the study paid attention towards transactional and transformational leadership styles while further adding that there is a positive association between transactional leadership and the work engagement levels among the employees and also their higher levels of commitment. Moreover, Al-Yami et al. (2018) further edified that nursing staff has been seen as having a greater influence on transactional leadership; therefore, this has been studied in this research while undertaking the nurses as the research participants within the Saudi healthcare institutes. The research identified that there is a comparatively more positive impact of transactional leadership on the nurses' commitment. The study responded to this assumption by referring to the fact that it is better to operate through transactional leadership such as by valuing order and structure because the healthcare industry needs this commanding behaviour among the leaders as it is necessary for the subordinates to be committed to their workplace. While conducting research through accumulating data from the aviation sector in a developing country, Puni et al. (2020) remained aligned to understanding the impact of transactional leadership along with analysing how transformational transactional leadership can make an impact on employee commitment. From this, it has been noted that transactional leadership individually has a positive impact on the nurses' commitment but there is no certain sort of impact found of transformational leadership when it was evaluated to predict employee commitment with transactional leadership.

In view of the preceding, transactional leaders are often characterised along the lines of authoritative leadership (Guillem, 2020). In this vein, Authoritative leaders are frequently described as visionaries. Those who adopt this leadership style consider themselves to be mentors to their subordinates (Andriani, 2022). Delegation of authority places a greater emphasis on a "follow me" approach than the authoritarian leadership style does. Leaders inspire followership by setting an example for those around them. People are more likely to be inspired and driven by leaders who display authoritative traits. Along with general guidance, they also provide instruction, criticism, and inspiration to their teams (Bastola, 2020). This promotes a sense of accomplishment or success. Understanding each team member is a key component of the authoritative leadership style. This enables a leader to offer advice and criticism

on a more individualised basis, assisting others in succeeding. As a result, effective leaders must be flexible, especially as their teams get bigger. Authoritative leadership requires a lot of hands-on involvement, but leaders must be careful not to micromanage. This is a tendency with this approach that might be oppressive to the team and inspire unfavourable feelings (Guillem, 2020).

When the authoritarian leadership style is applied, however, the guidance given by the leader can result in success (Baker et al., 2020). As a result, there are more stringent timelines, task allocations, and levels of quality control. By definition, authoritarian leaders frequently take the initiative to make choices on their own. They do not talk to anyone else in their team for advice. When dealing with an emergency scenario, this can be helpful Adler and Laasch, 2020). An authoritarian leader chooses so the team can start to work immediately away, as opposed to being forced to travel through numerous tiers of bureaucracy, as some leadership styles urge (Baker et al., 2020).

Many teams operate in potentially very stressful environments. The authoritarian method is recommended when a team is under a lot of strain because it allows each team member to concentrate on their area of expertise (Yadav et al., 2022). Complex decision-making is the sole duty of the leader. The outcomes a team can deliver have the potential to outperform other leadership styles because each member can be highly specialised (Adler and Laasch, 2020).

For results in many businesses, precise directions must be followed. The manufacturing and construction sectors frequently use authoritarian leadership approaches. These industries have specialised tasks that must be carried out regularly and according to strict guidelines. These leaders do well in this context because they can manage implementation processes and establish an environment where safety regulations are followed and production targets are fulfilled (Al-Khasawneh et al. 2021).

There are rarely any doubts about who is in command when an authoritarian leadership style is being employed. This lessens the possibility of one employee trying to suggest one way for a team to function while others are suggesting another. This clarity produces instructions that allow for more effective performance because the model is rigorous. Unless instructed to do so, one cannot accept a leadership position (Tudor et al., 2018).

2.4.3 Passive Avoidant Leadership:

Passive avoidant leadership is a leadership style where individuals in a leadership position tend to avoid making decisions, taking responsibility, or addressing conflicts and problems. Passive-avoidant leadership style should be avoided by leaders via engaging in self-reflection, building confidence with followers, clearly communicating expectations, practising decision-making, seeking inputs and suggestions, gathering relevant information, and avoiding conflicts via developing conflict resolution skills through a growth mindset and the practice of active listening.

According to (Avolio et al., 1999; Bass et al., 2003; Avolio and Bass, 2004), passive avoidant leadership expresses either the leader waiting for problems to occur before taking any action, or not taking any action at all. These leaders avoid setting agreements, clarifying expectations, and setting goals and standards that should be achieved by subordinates. As per of view Bass and Avolio (2004), Passive avoidant leadership has two dimensions passive management and laissez-faire leadership.

Passive-avoidant leadership, encompassing laissez-faire leadership and management-by-exception (or passive), is characterised by a leader's inaction, avoidance of decision-making, and failure to provide necessary guidance or feedback (Czakert & Berger, 2022). This leadership style has garnered attention due to its detrimental effects on organisational outcomes, including employee performance, job satisfaction, and safety compliance (Fosse et al., 2019). Passive-avoidant leadership is detrimental to both employees and organisations (Lu et al., 2021). Its association with negative outcomes such as absenteeism, reduced performance, and safety non-compliance underscores the need for organisations to recognise and address this leadership style (Ågotnes et al., 2023). Passive-avoidant leadership is thus often considered a non-leadership style, marked by a lack of proactive behaviours and engagement with subordinates (Barling & Frone, 2017). Leaders exhibiting this style tend to avoid responsibilities, delay decisions, and provide minimal feedback, leading to ambiguity and a lack of direction for employees (Avolio & Bass, 2004). Such behaviours can result in decreased employee motivation and increased role conflict (Skogstad et al., 2007). In this respect, research indicates that passive-avoidant leadership negatively affects various employee outcomes (McGurk et al., 2014). For instance, it has been associated with increased absenteeism and presenteeism (Fosse et al., 2019). Employees under passive-avoidant leaders may come to work when ill due to a lack of support, yet also exhibit illegitimate absenteeism when well, reflecting

disengagement and dissatisfaction (Frooman et al., 2012). Additionally, this leadership style correlates with higher instances of counterproductive work behaviours and lower task performance (Alhuzaim et al., 2022). Indeed, passive-avoidant leadership contributes to a lack of psychological safety and increased stress among employees (Lu et al., 2021). In virtual team settings, such leadership impairs team cooperation, leading to unclear expectations, role conflicts, and decreased trust (Ågotnes et al., 2023). Moreover, employees may develop insecure attachment styles toward their leaders, resulting in lower job satisfaction and organisational commitment (Molero et al., 2013).

Components of Passive Avoidant Leadership:

Passive avoidant leadership is typically understood through two primary components within the Full Range Leadership Model (Bass & Avolio, 1994):

A. Laissez-Faire Leadership:

Laissez-faire, French for "let it be," describes a complete abdication of leadership responsibilities. The leader provides virtually no guidance, support, or direction, granting complete autonomy to followers. While extreme autonomy *might* theoretically benefit highly self-directed and competent teams, in practice, laissez-faire leaders are often seen as disengaged and ineffective (Skogstad et al., 2007). They are absent when needed, avoid decision-making, and fail to monitor progress or provide feedback. This style is characterized by a lack of involvement, delayed responses, and a conflict-avoidant approach (CU Management, 2024).

B. Management-by-Exception (Passive):

This component involves the leader waiting passively for mistakes or problems to occur before taking any action. Unlike "management-by-exception (active)," where leaders actively monitor for deviations and intervene promptly, the passive approach means problems are often ignored until they become severe or critical. The leader only reacts to existing errors or failures, rather than proactively preventing them or guiding the team (Bass & Avolio, 1994). This reactive stance means the leader is often too late to prevent significant harm or to foster a proactive, high-performing environment.

- **Effects of Passive Avoidant Leadership:**

The consequences of passive avoidant leadership are overwhelmingly negative, impacting individual employees, team dynamics, and overall organisational effectiveness.

A. Effects on Employees:

- **Role Ambiguity and Conflict:** A primary effect is the lack of clear direction and expectations, leading to confusion about roles, responsibilities, and priorities. Employees may experience role overload as they struggle to define their tasks without guidance (Hinkin & Schriesheim, 2008; Skogstad et al., 2014).
- **Reduced Motivation and Engagement:** When leaders are disengaged, employees often feel their efforts are not valued or recognized. This can lead to decreased intrinsic motivation, a sense of disempowerment, and ultimately, disengagement from their work (Frontiers in Psychology, 2021).
- **Increased Stress, Burnout, and Psychological Distress:** The absence of support, unresolved conflicts, and unclear expectations create a highly stressful work environment. This chronic stress can contribute to work fatigue, burnout, and various forms of psychological distress (Christie & Barling, 2009; Skogstad et al., 2007).
- **Lower Job Satisfaction and Organisational Commitment:** Employees under passive avoidant leaders tend to report lower job satisfaction due to feelings of neglect and lack of progress. This can also lead to decreased organisational commitment and a higher likelihood of turnover intentions (Semantic Scholar, 2019).
- **Increased Absenteeism and Presenteeism:** Studies have shown a link between passive avoidant leadership and increased illegitimate absenteeism (employees staying home when well) and presenteeism (coming to work while ill but being unproductive), as employees may feel less accountable or more stressed (ResearchGate, 2014).
- **Increased Workplace Bullying and Incivility:** In the absence of strong leadership and clear behavioural norms, negative interpersonal behaviours like bullying and incivility can proliferate, as there are no consistent interventions or consequences for such actions (ResearchGate, 2020).

B. Effects on Teams:

- **Dysfunction and Lack of Cohesion:** Without active guidance and intervention, teams may struggle to establish clear priorities, coordinate efforts, and resolve internal conflicts. This can lead to dysfunction,

misunderstandings, and a breakdown in team cohesion (CU Management, 2024).

- **Reduced Team Performance:** The collective impact of individual disengagement, role ambiguity, and unresolved conflicts directly translates into lower team performance, missed deadlines, and inefficient processes.
- **Stifled Creativity and Innovation:** A passive leader fails to encourage new ideas, provide intellectual stimulation, or create a safe environment for experimentation. This can stifle team creativity and hinder efforts towards innovation (Emerald Insight, 2024).

C. Effects on Organisations:

- **Inefficiency and Missed Opportunities:** The cumulative effect of individual and team-level issues leads to overall organisational inefficiency. Opportunities for improvement, growth, and adaptation may be missed due to the leader's inaction.
- **Poor Decision-Making:** Critical decisions may be delayed or avoided, leading to suboptimal outcomes or allowing minor issues to escalate into major crises.
- **Negative Organisational Culture:** A pervasive passive avoidant leadership style can embed a culture of apathy, blame-shifting, and a lack of accountability throughout the organisation.
- **Increased Costs:** High turnover rates, reduced productivity, and the costs associated with resolving escalated problems can lead to significant financial drains on the organisation.
- **Weakened Reputation:** An organisation consistently struggling with internal dysfunction due to passive leadership may suffer damage to its external reputation.

In conclusion, Passive avoidant leadership, characterised by its detachment and abdication of responsibility, stands in stark contrast to effective leadership styles. Its components, laissez-faire and passive management-by-exception, consistently lead to a cascade of negative outcomes for employees, teams, and the organisation as a whole. From fostering role ambiguity and stress among individuals to hindering team performance and stifling organisational innovation, the literature unequivocally demonstrates that the absence of leadership is a significant impediment to success. Organisations must recognise the insidious nature of this style and cultivate proactive, engaged leadership to ensure a healthy, productive, and adaptable work environment.

Passive and avoidant leadership styles have shortcomings that can undermine, amongst other things, effective leadership, organisational effectiveness and employee innovation. Passive leadership is marked by inactivity and a lack of proactive engagement with employees. Leaders adopting this style fail to provide clear direction, feedback, or support, resulting in confusion about roles, priorities, and expectations. Particularly, in this case, regarding the need for innovation. Employees with passive or avoidant leaders will be left uncertain about how their work is perceived, thus stunting innovation. In the end, the absence of decisive action will ensure challenges are left unresolved, and thus compound poor competitiveness. The business will need to recognise and address these leadership shortcomings to ensure long-term success and employee innovation.

2.5 The Importance of Different Leadership Styles in a Civil Aviation Company:

Good leadership is the foundation of any organisation's strength. To achieve organisational goals and enhance efficiency, any business must have effective leadership. An organisation may move to informal leadership procedures without any carefully considered leadership practices which results in a culture that is not clearly defined and growth that is not sustainable. The organisational structure becomes unbalanced as a result, and the members get frustrated and confused. Additionally, it affects the organisation's total bottom line. Business is run by people and leaders cannot just hire people and then expect them to figure out the organisation on their own. The leader must help them comprehend the organisational requirements and expectations for them (Hallinger, 2018). This calls for strong leadership that can motivate people by fostering relationships between leaders with their employees. It is a fundamental managerial position that aids in increasing productivity and achieving organisational goals. Furthermore, it does not end there. Leadership is far more important than we might imagine. It improves employee morale and motivation, gets rid of prejudice, gives people more self-assurance, creates a psychologically secure work atmosphere, and encourages creative thinking. It is safe to argue that effective leadership is essential to achieving efficiency across the board in any firm. However, it depends on how one interprets leadership and guides a team toward greater achievement over time.

A team leader who is good at motivating his or her followers possesses many skills and qualities. Team leaders might develop their leadership abilities through formal education and practical experience, or they can be born with particular traits like

compassion and honesty (Guillem, 2020). By boosting team productivity, the leader can boost the morale of the team. The reasons for and the methods for developing leadership qualities among employees are discussed in the sections that follow:

Table 1: The reasons for and the methods for developing leadership qualities among employees

Gives Direction and Pushes the Team Forward	Increasing Morale
Enables Team Members to Perform to the Best of their Abilities	Ensure the Proper Development and Training
Assumes Accountability for Decisions	Dispute internal disputes
Offer to Help with New Projects	Prioritise meeting people's needs
Recognise Advantages and Disadvantages	To Persuade the Public

- Gives Direction and Pushes the Team Forward:

A leader gives the team direction by outlining goals and objectives in detail so that everyone on the team is aware of the ultimate target they are working toward. They also create and enforce deadlines to keep the team on task and progressing. Checking on each team member's progress and assisting them in resolving any challenges is one method an excellent leader accomplishes (Yukl, 2012).

- Enables Team Members to Perform to the Best of their Abilities:

A strong leader can give his or her team members duties that play to their strengths since they are aware of their abilities and skills. A leader also fosters relationships and promotes communication among team members so that they may collaborate effectively and benefit from one another (Guillem, 2019). A leader is also skilled at inspiring and motivating his or her team members to give their finest work through appreciation and praise.

- Assumes Accountability for Decisions:

To prevent work from being delayed when the team is unable to decide between several options, a leader steps up and decides on behalf of the group. To make an objective decision that is advantageous to the project and the team, they achieve this by having a healthy mix of emotional and logical reasoning (Talplacido et al., 2022). At the same time, they accept accountability for their actions and when anything goes wrong, they do not pass the buck to their teammates but instead try to find a solution.

- Offer to Help with New Projects:

When the supervisor or manager requests more assistance, offer to take on more jobs. This gives the chance to develop new abilities and practice responding appropriately to a variety of obstacles. A person will discover how to stay composed and level-headed when confronted with challenging work and how to use the resources at their disposal to obtain more information to aid in task completion. Leaders frequently encounter challenging circumstances, and they must maintain composure to make wise decisions (Puni et al., 2020).

- Recognise Advantages and Disadvantages:

Examine the strengths and weaknesses to determine which ones can be used to their advantage and which ones they should work on strengthening. For instance, the ability to get along with people and be personable can help a person succeed in a leadership position where they can inspire others to finish a task. However, if the issue is that they struggle to think abstractly or in terms of the "big picture," they might want to work on it by practising strategy meetings on how a choice would impact the office six months, a year, and five years from now (Marshall and Partidario, 2022).

- Increasing Morale:

People experience numerous experiences during their careers that have the potential to lower morale. For some people, it can be a poor work-life balance, busy schedules, or a lack of managerial appreciation. Leaders do not want their finest workers to leave the company because morale is low. As a result, they are interested in hearing from them and must occasionally inspire them by appreciating and praising their work They are receptive to the situation and take appropriate action to create a motivated and content workforce (Jamieson and Donald, 2020).

- Ensure the Proper Development and Training:

Good recruiting is one thing that great leaders value. However, if they are not given the appropriate training and development over time, hiring them would not do anything. There are now numerous facets to it. First, training personnel increases their knowledge and confidence, which positively affects the bottom line of the company. Employees also look for training to advance in their careers and enjoy their work. Second, offering the appropriate training aids a business in developing future leaders (Cole, 2018).

- Dispute internal disputes:

Conflicts at work are a common occurrence. Differences of opinion and conflicts are inevitable when a varied group of people live under the same roof. Knowing this, a

leader takes steps to resolve disputes before they have a chance to harm production. An aviation leader can react quickly to any crisis and put policies in place to settle any resulting workplace disputes (Hallinger, 2018).

- Prioritise meeting people's needs:

It is a leader's responsibility to serve their followers selflessly, put others' needs before their own, and create an environment at work where everyone may succeed and grow. Good leaders are aware that by prioritising others' needs and making investments in them, they may win their followers' unwavering devotion and trust. It results from having empathy and compassion. They create connections by listening to others' opinions and keeping an open mind when making decisions. People feel empowered and gain confidence as a result.

- To Persuade the Public:

Influence is the word that best describes leadership. The essence of leadership is motivating others to develop the abilities and attitudes needed for success. People are influenced by excellent leaders through their exceptional conduct and admirable work ethics. Few people possess the charisma or determination to persuade others. It is the cause of the dearth of effective leaders. The discipline of their leader has an impact on followers, which manifests in conduct. Regardless of the person’s position in the organisation, they can develop their leadership skills at any level. They are crucial traits to possess because a competent leader can inspire his or her team to work together toward a common objective by bringing out the best qualities in each person. To prevent delays, a skilled leader keeps the group engaged and on task. The leader must try some of the ideas above to develop leadership abilities, such as volunteering for new initiatives at work and learning new skills in the process, coaching someone else to develop their communication abilities, and focusing on maximising the strengths and addressing all the deficiencies (Jami and Çelik, 2018).

2.6 Organisational Innovation:

As noted by Alblooshi, Shamsuzzaman, and Haridy (2021), when people discuss "organisational innovation," they usually refer to the introduction of a new idea or practice into an organisation or the formalisation of a previously unrecognised practice. This is because "organisational innovation" refers to the introduction of a new concept or practice. This definition also contains the words "idea" and "behaviour," in addition to the word "new." Ouakouak and Ouedraogo's (2017)

primary focus was on the knowledge foundation that is the foundation for innovative organisational concepts, as well as the creative ideas and behaviours that have the potential to have a transformative innovation on our clientele. As a result, the study of the manifestation and influence of new ideas and practices inside a company is what is understood to be the definition of innovation. Innovation, both individual and institutional, is a significant contributor to the dynamic nature of today's corporate environment, which is always changing. An example of innovation is finding new ways to boost the effectiveness and output of a company's operations via the use of novel processes. When either new needs are created or existing demands of beneficiaries and the market are satisfied in inventive ways, innovation raises the value for the people who stand to benefit from it. In 2018, the World Economic Forum projected that around 133 million new job opportunities would be produced by the year 2022, while technological innovation might affect 75 million roles (World Economic Forum, 2018). According to the results of a recent survey conducted by McKinsey (2010), and Firm an overwhelming majority of chief executive officers (84 per cent) feel that innovation is essential to the continued success of their company in the future (Grobbink, E. 2012).

According to Alharbi et al. (2019), it has been identified that in today's more volatile and competitive global market, many businesses today look to innovation as the key to their continued existence, as one school of thinking has it.

Discussing organisational innovation, Abdel-Haq et al. (2018) analysed that there is increasing development in the Kingdom of Saudi Arabia (KSA) with respect to the usage of Enterprise Resource Planning (ERP) systems; however, the study also revealed the success as well as the advantages of using ERP systems within the context of KSA. The study found that KSA-based organisations have been introducing ERP systems in every designated department because the efficiency of the business activities is increased due to its instalment. The study further quantified the facts while explaining that the instalment of technology has become very necessary for business organisations mainly on the entrepreneurial side because it improves business performance to a great extent. On the other hand, Almahamid et al. (2021) mentioned the importance of knowledge management processes as well as service innovation as a key part of the aviation sector as the study considered the KSA airports and the use of innovative technologies for the betterment of operations. With respect to the findings, it has been viewed that there is a positive influence of

knowledge creation on knowledge sharing which in turn impacts knowledge implementation as well. In the aero-engine Maintenance, Repair, and Operations (MRO) market, a study has been conducted by Aero-Engine (2020) in the context of Saudi Arabia; however, the study determined that there is an ample number of technical developers in the aero-engine industry while they are mainly building the agile project management approaches. Nevertheless, the study further portrayed that the adoption of agile methods in security work primarily helped the aviation industry to overcome several challenges. Overall, the research enlightened the importance of organisational innovation in the form of preferring the agile project management approaches in security functioning.

2.7 Employee Creativity:

Employee creativity defines the generation of novel and useful ideas within an organisational context (Chaubey & Sahoo, 2022). Employee creativity is critical for innovation and competitive advantage and is influenced by a combination of individual, team, and organisational factors (Yoshida et al., 2014). The theoretical foundation of employee creativity is advanced in Amabile's (1983) componential theory of creativity. Amabil's theory presents a foundational framework that posits creativity is driven by domain-relevant skills, creativity-relevant processes, and intrinsic task motivation. This model has guided much of the research on how work environments and leadership styles impact creativity. For instance, an organisational climate that supports innovation, autonomy, and open communication promotes creativity (Zhang & Bartol, 2010). Psychological empowerment and perceived organisational support also correlate positively with creative outcomes (Zhou & George, 2001). Conversely, high-pressure environments with excessive control tend to suppress creative behaviour. Moreover, individual differences, such as openness to experience and intrinsic motivation, significantly influence creativity (George & Zhou, 2001). Additionally, team diversity and collaborative interactions foster creative problem-solving by bringing multiple perspectives to a task (Tierney et al., 1999). Indeed, employee creativity leads to process improvements, product innovation, and strategic renewal, while also contributing to job satisfaction and engagement, reinforcing a virtuous cycle of innovation (Shalley et al., 2004). Employee creativity is thus a multi-faceted construct influenced by leadership, organisational culture, individual traits, and team dynamics (Chaubey & Sahoo, 2022). Building a supportive, open, and empowering environment is, therefore,

essential for enhancing creative performance across organisations. It follows that leadership plays a critical role in shaping the environment and psychological conditions necessary for employee creativity (Carmeli et al., 2010). In particular, leadership influences employees' motivation, self-efficacy, and perception of support, which collectively reiterate factors that determine whether individuals will engage in creative behaviours at work (Yoshida et al., 2014). In the bargain, High-quality leader-member exchange relationships, marked by mutual respect and trust, provide the relational foundation for employee creativity (Gong et al., 2009). Accordingly, employees who feel valued by their leaders are more likely to propose novel ideas and contribute to organisational innovation (Tierney et al., 1999). Along these lines, transformational leadership, characterised by inspirational motivation, intellectual stimulation, and individualised consideration, has been consistently linked to higher levels of employee creativity. Transformational leaders promote a vision that encourages innovation and risk-taking while providing the psychological safety needed for creative expression (Bass & Riggio, 2006). Gong et al. (2009) show that transformational leaders enhance employees' creative self-efficacy, which in turn boosts creative performance. As opposed to transformational leadership, transactional leadership, with its focus on task completion and rewards, has a more limited and often neutral effect on creativity unless paired with transformational behaviours (Jung et al., 2003). Passive-avoidant leadership, on the other hand, is generally detrimental to creativity due to a lack of guidance and support (Skogstad et al., 2007). Employees under passive leaders often report low motivation and engagement, which stifles creative output. Furthermore, empowering leadership, which delegates authority and encourages autonomy, also supports employee creativity by enhancing psychological empowerment (Zhang & Bartol, 2010). Servant leadership, focused on the development and well-being of followers, nurtures a supportive climate conducive to creative thinking by fostering trust and collaboration (Yoshida et al., 2014).

With respect to the role of employee creativity in organisational innovation, Amabile and Pratt (2016) suggest that when employees are intrinsically motivated and possess the necessary skills and processes, they are more likely to produce creative outcomes that can lead to innovation within organisations. Chaubey and Sahoo (2022) report that employee creativity significantly impacts organisational innovation, emphasising the role of dynamic capabilities in this relationship. Similarly, Hussain and Wahab (2021) highlight that employee creativity influences innovative behaviour, which in

turn drives organisational innovation, suggesting a mediating role of innovative behaviour. Carmeli et al. (2010) argue that several organisational factors such as psychological safety and an innovation-supportive climate may enhance the translation of employee creativity into innovation. Employee creativity thus serves as a foundational element for organisational innovation (Chaubey & Sahoo, 2022). Most importantly, boosting organisational innovation tends to hinge on elevating employee creativity by enhancing intrinsic motivation, providing supportive leadership, and cultivating an environment that encourages risk-taking and idea-sharing (Hussain & Wahab, 2021; Amabil & Pratt, 2016).

2.8 Organisational Culture:

Organisational culture refers to the shared values, beliefs, norms, and practices that shape the behaviour of individuals within an organisation (Schein, 2010). Organisational culture thus influences how employees interact, make decisions, and respond to challenges, thereby serving as a framework for organisational functioning (Cameron & Quinn, 2011). In this respect, organisational leadership plays a key role in forming and maintaining an organisational culture where leaders model behaviour, establish priorities and communicate expectations that shape cultural norms over time (Yukl, 2013). Through strategic vision and consistent actions, leaders embed values that promote openness, collaboration, and innovation (Yukl, 2013). In fact, the relationship between organisational culture and innovation is well established where a culture that encourages experimentation, tolerates failure, and supports knowledge sharing enhances a firm's ability to innovate (Martins & Terblanche, 2003). Leadership, therefore, facilitates this process by promoting an environment that aligns innovation goals with cultural values (Schein, 2010). In essence, leadership creates and reinforces a culture that either promotes or hinders innovation (Yukl, 2013). When leaders prioritize adaptability, continuous improvement, and employee empowerment, they cultivate a cultural foundation conducive to innovation-driven outcomes (Cameron & Quinn, 2011). Along these lines, effective leadership creates a cultural environment that supports creativity, adaptability, and continuous improvement, all of which are essential for innovation (Martins & Terblanche, 2003). For instance, transformational and strategic leadership styles are consistently associated with higher levels of organisational innovation (Cameron & Quinn, 2011). It follows that leaders who articulate a clear vision, empower employees, and foster openness to change are more likely to drive innovation across all levels of an

organisation (García-Morales et al., 2008). These leaders act as change agents, aligning innovation goals with organisational capabilities and resources. Toward this end, organisational culture serves as a conduit through which leadership influences innovation (Yukl, 2013). A culture that promotes knowledge-sharing, risk-taking, and collaboration enhances the organisation's capacity to innovate (Schein, 2010). Furthermore, the extant literature shows that when leaders instil values of trust, learning, and flexibility, they create the psychological safety and structural support necessary for innovation to flourish (Hartmann, 2006). In the context of Saudi organisations, Alateeg and Alhammadi (2024) find that strategic leadership indirectly influences innovation through its impact on organisational culture. Their study demonstrates that leadership practices such as strategic vision and performance monitoring foster a culture conducive to innovation in Saudi public institutions. In view of the preceding, organisational leadership's impact on innovation is not purely direct as it is significantly mediated by the culture leaders create. To reiterate, cultivating an innovation-oriented culture is thus a critical mechanism through which leadership translates into sustained organisational innovation.

Culture is what is needed to successfully adapt to the outside world; it is the collective strategy a society adopts to survive. The influence of culture on management and leadership styles is a topic explored by Hofstede (2001). The first of Hofstede's five cultural dimensions is power distance (PDI), which is defined as the average gap in wealth or status in society (Al-Ghazali, 2020). Individualism (IND) is the second dimension and refers to the degree to which people value themselves independently of organisational membership when making decisions. The third dimension is masculinity (MAS), which measures traditionally "masculine" traits (such as aggression, competitiveness, and success) against more "feminine" traits (such as the focus on the quality of life, close relationships, and selflessness) relative importance. Uncertainty avoidance (UAI) refers to the extent to which citizens of a country prefer order to chaos. Last but not least, the fifth dimension, Long-Term Orientation (LTO), is meant to account for features common to many Asian civilisations that the first four do not have (Khan et al., 2020). The term "long-term orientation" refers to the extent to which an individual's behaviour is motivated by long-term goals and outcomes rather than immediate gratification. When it comes to governance in Saudi Arabia, there is a marked gap between those in positions of authority and those further down the chain of command (Shehawy et al., 2018). Thus, Saudi workers are primed for an

authoritarian management style that is offset by financial support for the families of those who work for them. According to Alwakid et al. (2020), American leadership theory promotes employee input in management decisions, but it is not effective (small power distance). It is safe to conclude that the wide power gap/low personality of the Saudi management culture is detrimental to traits such as self-confidence and bargaining power with employers (high individualism). However, since leadership can be taught and learned, this does not mean that transformational leadership is not suitable or even possible to practice in Saudi Arabia. Alwakid et al. (2020) supposed that "Gone are the days" when leadership was thought to just come naturally to certain people. Furthermore, leadership does not favour any gender, culture, socioeconomic status, race or circumstance. Leadership originates and develops in the spiritual will and dedication of people.

2.9 Relationship Between Leadership Styles and Organisational Innovation:

In this age of rapid technological advancement, businesses must add creativity and innovation to their services and products or face a dynamic environment in which they must operate. In this chapter, it has been emphasised again how crucial employee creativity is to innovation. It has been established that fostering individual innovation is essential for companies to be profitable and endure in the market. Numerous businesses are also constantly observing and implementing new strategies to inspire their staff to be more inventive and generate new ideas. As one of the most significant factors impacting employee creativity and organisational innovation, leadership is one strategy. Additionally, leadership has been noted as a key element of organisational innovation (Alblooshi et al., 2021).

The importance of encouraging new ideas as the main goal of every business has risen dramatically. To thrive in today's fast-paced, cutthroat business environment, the Saudi organisation actively seeks out new ideas and fosters a culture of innovation. Still, health organisations are always looking for new ways to encourage innovative teams in the hope that they can eventually develop new solutions to old health problems. Improving the effectiveness of Saudi's team is critical if the company is to remain competitive in the face of increasing global competition. An organisation's success in the digital and physical worlds depends on the quality of teams working on creative projects to improve people's health and quality of life.

Additionally, the leadership style of a Saudi Arabian company or organisation has a significant impact on the operations and results of a multi-departmental team. In

business, innovation is the process of coming up with a novel approach to an existing problem. Innovation facilitates the invention of ideas and their execution to create the best method, procedure, or product. Individuals, groups, and even entire organisations can become incubators for new ideas and approaches (Shkvarya et al., 2019). Regardless, the results will be apparent on one or more of these layers. For innovation initiatives, companies need a broad workforce with diverse perspectives and experiences to solve complex problems, and cross-functional teams are critical. However, disagreements arising from role differences can undercut a team's potential for peak performance. Teams working within an organisation to create innovative products have been shown to increase a company's chances of success in the marketplace. Successful teams accelerate product development cycles, cut expenses, and improve the quality of new products within the company (Alshahrani et al., 2022).

According to a recent study (Saleem et al., 2020) investigating the issues that innovation teams face during development, these include leader onboarding requirements, leader personal qualities, communication, cross-functionality and work distribution. Team members engage in team development when they see it as an opportunity to create a unique set of social structures, norms, and practices that support the team's preferred method of getting work done.

Leadership has been important throughout human history, and leadership style has been crucial in creating a positive work environment and corporate culture. Particularly, the leadership style inspires individuals to strive actively to meet the objectives of the organisation. A leader's job is to spread knowledge by modelling learning behaviour to inspire team members to come up with original ideas (Cole, 2018). Different competencies may be developed in employees by an effective leadership style. Leaders and their adopted leadership styles are acknowledged as the most extensively researched topics in the literature. The design and implementation of methods for establishing a vision and the right path to accomplish that objective through leveraging the resources at hand are all examples of a leadership style. Every leader in a company has a particular leadership style. People employ their preferred leadership styles depending on the circumstances, and these philosophies vary widely among people.

An organisation's main goal in this competitive environment is to enhance employee performance at work to raise productivity and quality of life. Organisational success is

primarily fueled by effective leadership and improved worker-leader collaboration. A leader's main duty is to serve their organisation by acting honourably and choosing a suitable course of action to quickly fulfil the organisation's purpose. Numerous studies have shown the value of leaders and the relationship between leadership style, employee dedication, and organisational performance (Maamari and Saheb, 2018). Numerous studies have also shown that leadership styles play a crucial role in predicting work success. In both industrialised and developing nations, several studies on leadership styles have been conducted (Hallinger and Hammad, 2019).

The ability to produce and use new ideas or innovations to improve job performance and achieve organisational objectives is known as innovative job performance. Innovation is the capacity for a person to see problems and offer original suggestions for a fix. The ability to effectively implement their ideas is necessary. The performance of employee innovation is influenced by several different things. Among these factors are motivation, personality, and organisational support. The process of innovation involves many stages. To compete, advance, and survive in the market, leaders have a role in putting this multi-stage process into practice in enterprises and transforming ideas into better products and services. Innovation can be found in a variety of application areas, including an organisation's goods and services, systems of production and distribution, administrative practices, advertising campaigns, and design techniques.

Measuring these actions and behaviours is necessary because employees' innovative behaviours and actions are becoming more and more crucial in enhancing the excellence and performance of systems and organisations. With the assistance of important international organisations actively encouraging innovation in this field, they have given this issue significant importance (Jamieson and Donald, 2020).

Being able to influence others is a sophisticated performance that is the foundation of leadership. As leaders are frequently the team members who decide to bring novel and innovative ideas, it is one of the most crucial aspects that determine organisational creativity. For an organisation to innovate, the leadership must be encouraging, promote learning and honest communication, and give people the tools they need to do so. A particular leadership style or other organisational elements like cooperation, collaboration, and learning may be the cause of organisational innovation that boosts performance. Additionally, by influencing intervening factors like organisational environment, strategy, and learning, which are all directly related to organisational

innovation, leadership can indirectly improve organisational innovation (Ciulla, 2020).

A complimentary strategy will be used in this leadership style rather than a single technique to engage both leaders and employees. One of the key factors in corporate culture, which affects innovation through company norms, attitudes, and behaviours, is leadership. Additionally, through its influence on innovation, leadership indirectly strengthens organisational differentiation tactics relating to the distinctiveness of its product features, brand, marketing techniques, or customer service. Different leadership philosophies are closely tied to innovative strategies (Vaughn et al., 2020).

The capacity of leaders to set objectives for an improved organisational strategy, convey those objectives to their followers, and support those objectives with justifications is crucial for innovation. Direction, advice on organisational priorities, and the creation of a conducive atmosphere for innovation efforts are all provided by leaders. Leaders encourage people to have self-assurance, take part in decision-making, and establish high-performance standards. They genuinely build relationships with their followers, which boosts devotion to their work and resolves disagreements while also increasing job happiness. Because their leaders will stand up for them and provide them with the support they need, followers will be eager to embark on difficult, dangerous activities (Shaturaey and Bekimbetova, 2021). Leaders are innovators because they encourage and motivate their people to question norms and perform better by aiming for a better future through their actions and behaviours. As a result, innovation is crucial for leadership. Leaders support creativity, take on challenges, and make sure that their team members have strong levels of motivation and inventiveness. Innovation leaders are distinct from other types of leaders in some ways (Marshall and Partidario, 2022). First, they can evaluate organisational procedures from a creative angle, which fosters the growth of cautious types of innovation. They are adaptable, open to change, and prepared to take the risks that come with it. They are driven and firmly believe in their objective, which helps them draw talent and assemble teams with high levels of motivation. Innovation leaders may take a front-end approach that focuses on ideation and investigating novel concepts, which calls for organisational creativity on the part of the leader. They can also drive innovation from the back end by turning concepts into real, worthwhile products that satisfy consumer needs and cost-effectiveness goals. The back-end strategy necessitates organisational control. To create the organisational learning that

fuels radical breakthroughs, leaders must be able to support active knowledge search tactics and the use of external information sources (Ciulla, 2020). As the process of implementing radical reforms to address issues and subsequently benefit people, innovative leadership is described. Visionary and able to articulate common visions, innovative leaders are described as possessing these qualities.

A creative leader must first have the social awareness to be aware of the issues people confront and seek out appropriate answers. A technical tacit and explicit understanding is also necessary for a creative leader to effectively use the pertinent technology to address issues and enhance the quality of life. To understand and analyse the environment and, therefore, compete, an inventive leader must be gifted and possess a reasonable level of intelligence. Innovative leaders should be motivated by principles like fairness, honesty, and integrity (Vaughn et al., 2020). To be able to persuade followers and maintain open communication with them, they are expected to have a deep belief in what they do. Most essential, innovative leaders should possess the perseverance to implement changes and uphold their convictions. According to the competency profile for innovation leaders, building an organisational culture that fosters innovation needs leaders to play a significant role in employee motivation, status quo challenge, and creating space for innovative and fresh ideas. A four-quadrant innovation competency-based profile is suggested by the author. An innovative leader should be able to articulate a shared vision that motivates followers to strive toward and attain the objective, promote group thinking, and set an example in the first quadrant, which is referred to as "strategist." A leader in innovation must encourage organisational learning, knowledge exchange, and innovation implementation to create capacities. An innovation leader is a matchmaker and able to take advantage of possibilities by being aware of the dynamics of the environment and its pertinent signals, paying close attention to stakeholders' requirements and encouraging followers (Hartzell and Gilbert, 2018). Leaders are motivated by results, and an innovative leader is expected to support and promote excellent performance as well as teamwork to achieve results.

2.9.1 The Theoretical Framework of Setiawan et al. (2021):

In view of the preceding, this study first investigated the leadership style used in the aviation sector in Saudi Arabia. The study showed that the perceptions of employees in the aviation sector in Saudi Arabia regarding the leadership style in their

organisation are consistent with transformational leadership. So this study adopts the theoretical framework of Setiawan et al. (2021). The reason behind this study choosing such a theoretical framework is due to relating organisational innovation to the organisational leadership style of transformational leadership via the conceptually consistent mitigating influences of employee creativity and organisational culture. In this fashion, the theoretical framework of Setiawan et al. (2021) reiterates the primary result of this study that transformational leadership is the one style adhered to in the aviation industry in KSA. In particular, the theoretical framework of this study identifies transformational leadership's attributes of idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration as stimulating both employee creativity (i.e., creativity and idea generation) and organisational culture (i.e., shared vision and values) with the ultimate objective of driving organisational innovation.

- **Idealised influence attribute of transformational leadership:**

The idealised influence attribute of transformational leadership refers to the leader's ability to act as a role model for followers, earning their admiration, respect, and trust through ethical behaviour, vision, and commitment (Abulrazaq et al., 2020). Leaders exhibiting idealised influence inspire followers by demonstrating behaviours and values that align with the organisation's goals and values. In other words, they serve as a model of integrity, fairness, and excellence, and their behaviour is perceived as exemplary by their followers (Afzal et al., 2018). Leaders who display idealised influence are seen as ethically sound and morally upright. They make decisions that reflect high ethical standards, and their actions align with their words. This creates a sense of trust and respect among followers (AlDhaheri, 2020). Idealised influence involves the ability to articulate a clear and compelling vision for the future. Transformational leaders not only communicate this vision but also embody it, demonstrating a strong commitment to achieving the organisation's goals (Alexander, 2016). These leaders are perceived as role models by their followers. They lead by example and set high standards in their work, behaviour, and relationships. Followers are motivated to emulate their leader's behaviours and values, often going beyond the call of duty to support the leader's vision (Alexander, 2016). By demonstrating idealised influence, transformational leaders inspire deep loyalty and commitment in their followers. Their behaviours foster trust and admiration, motivating followers to align themselves with the leader's vision and contribute to achieving the

organisation's objectives (Al-Ghazali, 2020). Leaders who exhibit idealised influence are thus trusted by their followers, who believe in the authenticity of the leader's actions and words. This trust helps create a strong foundation for positive relationships within the organisation and encourages open communication and collaboration. This is so since idealised leaders emphasise the importance of collective goals and the well-being of the organisation and its members, rather than self-interest (Alhashedi et al., 2021). They promote a sense of purpose and collective responsibility. Furthermore, followers feel empowered and motivated to go beyond their interests and contribute to the broader Organisational vision. Because followers are motivated by the leader's example and vision, they often display higher levels of engagement, performance, and innovation for the idealised influence of transformational leaders encourages strong loyalty to the leader and the organisation, which can result in higher employee retention and Organisational commitment. To sum up, the idealised influence attribute of transformational leadership is critical for cultivating trust, admiration, and commitment within an organisation. Leaders who display idealised influence create a positive Organisational culture where followers feel inspired to contribute to a shared vision, driving both personal and Organisational growth (Al-Husseini et al., 2021).

- **Inspirational motivation attribute of transformational leadership:**

The inspirational motivation attribute of transformational leadership refers to the leader's ability to inspire and motivate followers by providing a clear and compelling vision, setting high expectations, and encouraging enthusiasm and commitment to achieving Organisational goals (Alrowwad & Abualoush, 2020). Leaders who demonstrate inspirational motivation articulate a vision of the future that excites and energizes their team members, fostering a sense of purpose and passion for the work at hand. Leaders with inspirational motivation present a clear, compelling, and future-oriented vision that gives employees a sense of direction and purpose. This vision serves as a guiding force for the team, helping them understand the organisation's goals and the role they play in achieving them. Indeed, inspirational leaders set challenging yet achievable goals for their followers, encouraging them to exceed their perceived limits (Alrowwad & Abualoush, 2020). By setting high expectations, transformational leaders push employees to strive for excellence and achieve more than they initially thought possible. Inspirational leaders exhibit a high level of energy, enthusiasm, and passion for the work and the vision they're pursuing.

Their excitement is contagious, inspiring their team members to become equally committed and passionate about their work (Alexander, 2016). Leaders who demonstrate inspirational motivation foster a strong sense of commitment to Organisational goals. They help employees see the bigger picture, which aligns with personal and Organisational objectives. This leads to a more motivated and engaged workforce (Al-Ghazali, 2020). Inspirational leaders maintain an optimistic outlook, even in challenging situations. They help followers maintain hope and stay focused on potential successes, framing setbacks as temporary obstacles rather than insurmountable problems. This creates a resilient, forward-thinking environment within the team (Alhashedi et al., 2021). These leaders communicate the importance of work and its significance in contributing to the success of the organisation or society as a whole. They connect day-to-day tasks with broader, more meaningful objectives, increasing employees' sense of fulfilment and purpose. It follows that, when followers are inspired by a leader's vision and passion, they feel more motivated to contribute their best efforts (Al-Husseini et al., 2021). This results in greater engagement, energy, and enthusiasm toward their work. Followers are more likely to find their work meaningful and fulfilling when it is connected to an inspiring vision. This enhances job satisfaction and encourages long-term commitment to the organisation. Inspirational leaders also cultivate a sense of unity and teamwork by aligning the efforts of all members toward a common goal. This shared enthusiasm for the leader's vision creates stronger interpersonal connections and collaboration among team members (Al-Yami et al., 2018). Under inspirational leadership, motivated and engaged employees are more productive, innovative, and committed to achieving Organisational goals, and as a result, the organisation can expect better performance and the successful realisation of its strategic objectives (Anita et al., 2013). To conclude, the inspirational motivation attribute of transformational leadership is crucial for creating a highly motivated and engaged workforce. Leaders who excel in this attribute provide a clear and compelling vision, set high expectations, and foster enthusiasm and optimism. This leads to greater commitment from followers, stronger teamwork, and improved Organisational performance, all of which contribute to long-term success and innovation (Anita et al., 2013).

- **Intellectual stimulation attribute of transformational leadership:**

The intellectual stimulation attribute of transformational leadership refers to a leader's ability to encourage creativity, critical thinking, and problem-solving among their

followers (Arnold, 2017). Leaders who exhibit intellectual stimulation challenge their employees to think outside the box, question existing assumptions, and come up with innovative solutions to problems (Antonakis, 2017). This attribute fosters an environment where new ideas are valued, and followers feel empowered to experiment and explore novel approaches without fear of failure. Leaders with intellectual stimulation inspire their followers to think creatively and seek innovative solutions to challenges (Avolio et al., 2019). They encourage employees to come up with new ideas, explore alternative methods, and propose improvements in existing processes. These leaders ask questions that provoke critical thinking and challenge the status quo. They encourage employees to examine existing practices, think critically about them, and question assumptions that might limit progress or innovation (Bass et al., 2003). Leaders who display intellectual stimulation encourage their followers to take an active role in solving problems. They give employees the autonomy to experiment, make decisions, and find solutions on their own, fostering a sense of ownership and empowerment. Intellectual stimulation further involves creating an environment where continuous learning and development are prioritized. Leaders promote the exchange of ideas, provide growth opportunities, and support the professional development of their followers (Berkovic & Eyal, 2017). It follows that, transformational leaders who emphasise intellectual stimulation value diverse viewpoints and encourage collaboration among individuals with different backgrounds, skills, and perspectives. This diversity often leads to more creative and effective problem-solving. Leaders who demonstrate intellectual stimulation create an atmosphere where taking calculated risks and experimenting with new ideas are encouraged. They understand that failure is often a part of the learning process and promote a culture where employees feel safe to try new approaches (Braun et al., 2013). Furthermore, by encouraging employees to think creatively and critically, intellectual stimulation leads to a more innovative workforce. Employees feel empowered to propose new ideas and solutions, which can drive the organisation forward with fresh perspectives. Intellectual stimulation also helps followers develop better problem-solving skills. Leaders who challenge their employees to think critically and creatively foster a more adaptable and resourceful workforce, capable of addressing complex challenges effectively (Buli et al., 2019). When leaders stimulate intellectual curiosity and encourage autonomy in decision-making, employees are more likely to feel engaged and motivated. They develop a sense of ownership and

pride in their work, leading to increased job satisfaction and performance. Intellectual stimulation, therefore, promotes a culture of continuous learning and improvement. Employees who are encouraged to think critically and experiment are more likely to develop a growth mindset, where they view challenges as opportunities for personal and professional development (Chen et al., 2016). Along the same lines, organisations that embrace intellectual stimulation tend to be more agile and adaptable. They are better equipped to respond to market changes, technological advancements, and emerging trends because their employees are constantly learning, innovating, and problem-solving (Clarke, 2013). To sum up, the intellectual stimulation attribute of transformational leadership is crucial for fostering a culture of creativity, innovation, and critical thinking within an organisation. Leaders who excel in this attribute encourage their followers to challenge assumptions, explore new ideas, and take ownership of problem-solving. This not only boosts employee engagement and satisfaction but also contributes to the organisation's overall success and ability to adapt to a rapidly changing business environment (Clarke, 2013).

- **Individualised consideration attribute of transformational leadership:**

The individualised consideration attribute of transformational leadership refers to a leader's ability to offer personalized support, mentorship, and attention to the needs and development of each follower (Chen et al., 2016). Leaders who demonstrate individualised consideration treat employees as unique individuals, recognizing their strengths, weaknesses, aspirations, and personal needs. This attribute emphasizes the importance of fostering personal relationships, providing tailored guidance, and encouraging growth and development at an individual level. Leaders with individualised consideration focus on understanding the unique needs, challenges, and goals of each follower (Clarke, 2013). They provide one-on-one support and guidance to help individuals overcome obstacles and achieve their personal and professional goals. These leaders often take on the role of mentor or coach, providing regular feedback and encouragement. They guide followers in their career development and personal growth, helping them build new skills and progress in their roles. Idealised leaders thus practice empathy and actively listen to their employees. They make an effort to understand each individual's concerns, emotions, and perspectives, showing genuine care for their well-being. It follows that transformational leaders with individualised consideration focus on recognising and cultivating the strengths of their followers. They offer opportunities for employees to build on their existing abilities

and talents, helping them reach their full potential (Crede et al., 2019). Such leaders are committed to the development of their followers, both personally and professionally. They encourage continuous learning and support their employees in pursuing further education, skills development, or career advancement. Individualised consideration also involves recognizing and respecting the unique backgrounds, experiences, and perspectives of followers (Crede et al., 2019). Leaders create an inclusive environment where employees feel valued for who they are and are given the support they need to succeed. Furthermore, the personalised attention and support entailed by individualised consideration enhance employees' emotional connection to the organisation and their work (Harms & Crede, 2010). Employees who receive individualised consideration are more likely to experience higher levels of job satisfaction. They feel valued and appreciated, leading to stronger loyalty to the leader and the organisation. It follows that leaders who focus on individualised consideration provide employees with opportunities for growth, learning, and advancement (Islam et al., 2021). This leads to increased skill development and career progression for followers, which contributes to both personal fulfilment and Organisational success. By the same token, Individualised consideration helps build strong, trusting relationships between leaders and followers where employees who feel supported and understood are more likely to trust their leaders and be committed to the organisation's vision and goals while tapping into higher Organisational performance levels (Jaiswal & Dhar, 2015). To reiterate, the individualised consideration attribute of transformational leadership is crucial for creating a supportive, inclusive, and growth-oriented Organisational culture where leaders who practice individualised consideration take the time to understand and support the unique needs and aspirations of their employees, fostering personal and professional development. This not only boosts employee motivation, engagement, and job satisfaction but also enhances Organisational performance and long-term success (Li et al., 2019).

2.9.2 Hypotheses:

H1: The impact of organisational leadership (Transformational, Transactional, or Passive Avoidant) on organisational innovation is significant in the KSA aviation industry.

Depending on the leadership style observed, organisational leadership may be predicted to stimulate organisational innovation in terms of the adoption of novice and

genuine business methods and practices by providing a supportive environment that values new ideas and empowers employees in a fashion that increases their productivity levels (Fuller et al., 2022; Islam et al., 2021; Setiawan et al., 2021).

H2: Employee creativity significantly mediates the impact of organisational leadership (Transformational, Transactional, or Passive Avoidant) on organisational innovation in the KSA aviation industry.

Organisational leadership is predicted to have a significant impact on employee creativity. Depending on the leadership style observed, such impact may manifest through stimulating, inspiring, and motivating employees to think inventively, generate new ideas, explore novice territories, accept work challenges, and creatively undertake calculated risks (Hasel and Grover, 2013). Moreover, employee creativity tends to have a strong impact on organisational innovation given the notion that when employees are encouraged to think creatively and share their innovative ideas, new products, processes, and services could be genuinely developed in a manner conducive to augmenting organisational growth and competitiveness (Andreeva et al., 2022).

H3: Organisational culture significantly mediates the impact of organisational leadership (Transformational, Transactional, or Passive Avoidant) on organisational innovation in the KSA aviation industry.

The impact of organisational leadership on organisational culture is predicted to be significant. Depending on the leadership style observed, such impact may manifest through providing employees with support, guidance, and mentorship while encouraging open communication, trust, and mutual respect, creating a positive and inclusive work environment (Chen et al., 2021). Moreover, an organisational culture that recognises and rewards innovative contributions motivates employees to actively engage in the organisational innovation process (Felix et al., 2019).

The three hypotheses above were developed in the background of the study section in the introduction chapter of this study.

2.10 Effects of Leadership Style Directly Influencing Innovation Performance:

Leadership style has a significant impact on how people interact and conduct business in financial services firms. Using its management and production capabilities, a company produces innovations. One of the most crucial elements influencing employee creativity and organisational innovation is leadership style. Leaders must do

this by encouraging and supporting their team members' creative endeavours. The main factor in an organisation's success is the leader's capacity to recognise and support innovations. In the aviation sector, a key component in achieving a firm's long-term competitive advantage has been recognised as leadership style (Li et al., 2019). Leaders have a responsibility to find better solutions for service innovation because they have the power and ability to bring novel concepts, establish clear objectives, and support creative efforts. This suggests that executives are capable of advancing the company through innovation, creativity, teamwork, and strategy implementation. Thus, leadership style has a direct impact that is favourable to innovation performance.

When people or businesses share their knowledge (know-how, information, and experience), they are said to participate in knowledge sharing. The concept of knowledge sharing within an organisation is crucial as it facilitates the rapid adaptation of individuals and businesses to change, as well as the maintenance, development and even success of the entire company. To transfer knowledge from one person to another, both parties must be willing to learn and eager to listen to the teacher. As with helping everyone’s understanding develop, the act of passing this information on to others helps build a repository of shared information for future use by team members. Managers are always looking for strategies to encourage employees to learn from each other within the company, as this will foster a culture of continuous learning. Most Saudi businesses have a diverse workforce, making knowledge sharing an important activity that companies must invest in (Saleem et al., 2020). Companies cannot benefit from the diverse expertise of their employees unless those employees are willing to share what they know with each other. According to most studies conducted there, knowledge sharing has a significant impact on the business systems of Saudi organisations. Knowledge is the foundation of most of these groups, facilitating communication, collaboration, and the dissemination of ideas (Rahman and Qattan, 2021). Knowledge sharing and application are critical to this approach to organisational structure.

2.11 Effects of Leadership Style on Innovation Performance in The Civil Aviation Industry:

Dynamic business settings make it difficult for CEOs to adequately recognise and react to shifting markets. To maintain their position of leadership, CEOs must

increase their organisation's effectiveness, which has its roots in technology advancements and competition. A visionary plan can be developed by managers, who can then inspire their staff to accept and put those strategies into practice. So that businesses can foster an environment that encourages better inventions, leading to prospects for survival and growth (Sudibjo and Prameswari, 2021). The functional link between leaders and followers can be strengthened through leadership style, which serves as an essential catalyst for employee innovation and organisational effectiveness. An innovative organisational culture is sparked by a leader's leadership style.

The competence, conduct, and strategy of leaders who motivate their workforce to increase performance and contribute to corporate success are the focus of the leadership style-based paradigm. As a result, the connection between a leader's style and their ability to innovate is still crucial for the strategic function that it plays in boosting managerial effectiveness. Due to its connections to prospects for innovation, cooperative competition capability is especially crucial. Previous research suggested a strong correlation between innovation success and cooperative capability. Coopetition capability is a dual connection (cooperate vs. compete) that becomes a crucial issue for organisational innovations, as is abundantly demonstrated. It is considered an essential tool for encouraging cooperation and competition and as a tactic for achieving a market position. From a complementary angle, a strategic partnership enables businesses to expand their financial relationships and open up new markets while sharing costs.

Through the ability to cooperate, businesses can access and improve valuable knowledge to accomplish internal learning. By providing knowledge-based chances for innovation and rapid change adaptation, in-learning necessitates a strong partnership orientation with partners and rivals. Additionally, learning from competitors fosters the development of new ideas, while the adverse effects of in-learning may also exist in highly competitive environments where cooperation is not highly valued. As a result, management becomes useless and inefficient, making in-learning a crucial evaluation to control competition ability and innovativeness.

Business academics and professionals have been studying leadership styles in recent years based on the leader's ability to enable the desired objectives. A constant behavioural approach and characteristic of the leader's behaviour is their leadership style. Knowing the effects of various leadership philosophies, the innovative

organisation and its relationship to the participation and consideration philosophies are investigated. To improve operational operations, participation and consideration leadership styles represent facilitative behaviours, such as levels of affable, approachable, and open leadership practices (Javed et al., 2019). First of all, the leadership style of participation promotes an open discussion of ideas and constructive criticism, as well as acceptance of challenges in cross-functional interactions. Participant leaders also disclose their decision-making procedures to group members. Second, the consideration leadership style encourages employees to openly express their differences and engage in mutual bargaining as a way to better handle competitive situations. Employee cooperation is made possible by the fact that they are willing to resolve disputes the right way because they do not fear retaliation for speaking up. This typically has an impact on how employees carry out their tasks and responsibilities as well as how their knowledge may be applied and incorporated back into the corporate structure to enhance quality and performance.

Innovation is a key factor when it comes to the success of Saudi companies, and the adoption of Information and Communications Technology (ICT) is directly related to the innovation capabilities of the country's businesses. The episodic rewards and management with the exception of transactional leadership are evident in this work environment, compared with the charismatic, thoughtful, intellectually stimulating, and motivating traits associated with transformational leadership. Charisma should motivate employees and increase their appreciation for the company they work for (Shehawy et al., 2018). Managers' experience in how to follow procedures that help regulate the behaviour of the organisation and make it more successful is necessary for innovation to bring about the renewal of the company, flexibility in the execution of duties, and strengthening of working relationships. In the Saudi aviation industry, the link between transformational leadership and organisational innovation is also influential. This increases the importance of connections. Organisational effectiveness increases under the guidance of transformational leaders. Business organisations focus on leadership skills, employee motivation and creating a productive atmosphere to increase productivity and success. In view of this, multinational companies pay more attention to novelty (Tanveer et al., 2020). An effective leader understands the problems his organisation is facing and actively works to find new solutions.

Increases in goal-directed behaviour, organisational change, and people performing beyond expectations are just some of the ways transformational leadership impacts

innovation in the aviation industry. Additionally, the link between exploitative and exploratory innovation and its impact on business outcomes is illuminated. Transformational leadership works well because it encourages employees and prevents their enthusiasm, morale, or sense of empowerment from dropping. Innovation within organisations has been proven to improve business outcomes. Managers should also focus on innovation within the organisation to increase productivity and efficiency (Alshahrani et al., 2022). Change brings new opportunities, and innovation is the process of analysing, reflecting on, and ultimately exploiting those possibilities. Leadership transitions affect creativity within companies.

Research already focuses on assessing the suitable skill set required to control competition and conflicts. For instance, researchers suggested that information sharing requires a combination of formal and informal control systems, as well as separation and integration tactics. To handle paradoxes and tensions in coopetition partnerships, organisations should develop an analytical and balancing approach, according to a thorough analysis of cooperation models. No matter how strong the contradiction is, coopetition competence refers to the capacity to start processes that assist businesses in reaching and maintaining a desired degree of tension. Firms need to be able to manage a balanced relationship from partnerships if they want to generate more innovation in a coopetition relationship (Javed et al., 2019). Cooperation ability is a skill that all leaders should possess because they may engage in activities that combine cooperation and competition. Consistent knowledge integration from internal and external organisational domains results from this. Therefore, to encourage cooperation in the contexts of cross-functional cooperation and extra-coopetition, organisations may need leaders who are skilled at managing paradoxical conflicts (Bakar and Omilion-Hodges, 2018).

The process of integrating knowledge and using it from outside sources to understand and gain innovations is known as in-learning. Through the integration of existing knowledge, in-learning generates new knowledge, making it an exchange connection. The learning cultures that encourage creativity and innovation to surpass the competition and achieve effective integration are highlighted by the learning organisation theory. According to business academics, learning should be done to increase organisational survival and performance in challenging circumstances (Javed et al., 2019).

Organisational learning supports knowledge management, technology use, and individual and group learning empowerment to adapt to and take advantage of possibilities in a changing market. When opposed to traditional organisations, learning organisations feature productive and adaptable structures. The result is that their dedication to learning, openness to new concepts, capacity for complexity, ongoing adaptation to new circumstances and difficulties, and capacity for self-renewal are highlighted to gain a competitive advantage. In-learning, however, emphasises how quickly an organisation can be creative and innovative due to ideological differences. Low productivity and brand value may be the result (Sudibjo and Prameswari, 2021).

2.12 The Mediating Effect of Employee Creativity:

Using external knowledge and transforming it into internal processes is the foundation of in-learning, which increases an organisation's capacity for innovation. This enables managers to better encourage a dynamic workplace and boost worker productivity and performance. As a result, in-learning is frequently regarded in organisational research as an apparent driver of organisational performance. In-learning, however, is a trade-off between maintaining current abilities and acquiring new advantageous talents given the expenses and the resources of the majority of firms. Because in-learning entails a single channel that concentrates on converting externally obtained information into intra-organisational value, using it in a cooperation-driven innovation strategy has pros and cons. Contrarily, the ability to engage in cooperation enables businesses to focus on the interaction of cooperative and competitive forces, emphasising the benefits from both intra- and extra-organisational information in boosting their innovative performance. A company's ability to innovate involves both the exchange of new ideas within the company and its ability to capitalise on outside knowledge and resources (Jada et al., 2019). For greater innovation performance, businesses need to have the integrating skills to mix both internal and external knowledge and resources. While businesses that engage in coopetition and innovation require the ability to spot opportunities and seize them, in-learning concentrates on a particular approach to employ outside resources that might exhibit cooperation. When in-learning is higher, cooperation capability affects innovation performance in the aviation industry less significantly because in-learning negatively modifies the link between coopetition ability and innovation performance.

Civil aviation companies can improve their performance in terms of innovation by using certain leadership styles. Under the moderating effect of internal learning, leadership styles have a favourable impact on cooperation capability, which results in greater innovation performance. By engaging in these types of interactions, businesses can enhance their ability to cooperate, which enhances the results of their organisational innovation. With regard to collaborative behaviours and leadership style, an organisation may profit (Jada et al., 2019). Managers should think about user participation and thoughtfulness leadership to encourage a friendly and productive environment. Establishing a welcoming and approachable environment, notifying followers in advance of changes, creating a pleasant workplace, and treating all employees fairly are all examples of considerate leadership practices. Additionally, participation leadership emphasises a method for employee involvement in which the leader encourages them to share their perspectives, offer solutions, and participate in decision-making. An observation that should be made is that effective leadership displays cooperative management behaviours that could boost organisational effectiveness.

Cooperative ability plays a significant role in moderating the link between leadership style and innovative performance. The capacity to compete among themselves enables businesses to strengthen their partnerships while exercising caution and ex-post changes. By recognising fresh and applicable transferable market knowledge for their operational tasks, managers can establish a cross-functional cooperative capacity. Additionally, extra-coopetition capability, a key element of coopetition capability, enables senior managers to recognise when to collaborate and compete with other businesses. As a result, managers might create alternative approaches to managing collaboration and rivalry, in which they should routinely update the partnership's parameters (Jada et al., 2019).

In today's fast-paced industry, business crises and fierce competition are constant realities for Saudi companies. Today's airlines face the pressing strategic management challenge of figuring out how to build and maintain a competitive advantage in a volatile market. How enterprises maintain their advantages in a dynamic market is an eternal topic of academic research. The dynamic capability model predicts that the integration, realignment, and reallocation of internal and external resources are at the core of an organisation's ability to maintain a competitive advantage, while a resource-based perspective points out that access to useful, rare, and inimitable

resources is the key to maintaining a company's competitive advantage. The success of a business depends on an organisation's ability to adapt to change, and this ability called "resilience," arises from the interaction between an organisation's environment and its resources (Alshahrani et al., 2022). Organisational resilience refers to the ability to sustain operations in the face of adversity by preparing for and responding to crises, and the ability to remain flexible in the face of change. For businesses to maintain a competitive advantage over the long term, they must develop an organisational resilience that takes into account both capability and resource-based approaches. Organisational resilience research has just begun in Saudi Arabia. The relationship between organisational resilience and long-term competitive advantage is theoretically poorly understood (Alkraiji et al., 2022). In addition, firms may gain a competitive advantage through organisational learning. Business advantage can be enhanced through organisational learning to improve competitiveness and responsiveness to the external environment. Organisational learning can also affect a firm's ability to remain competitive in its industry through methods such as practice renewal and knowledge management. When a business can build capabilities based on its resources, knowledge and information, it can gain an advantage in a competitive market.

The results also suggest that internal learning has a negative moderating effect on the connection between cooperative ability and innovative performance. To collaborate in good faith and compete in increasing their strategic results, leaders must redefine competition in a more sophisticated and diverse way. Managers in the civil aviation sector must adapt and seize resources in a dynamic environment to create new capabilities and build a long-term competitive advantage. The conclusion highlights the value of external resources but also suggests that internal learning may lessen the impact of cooperative abilities. To develop cooperation competence in regard to flexibility and strategy implementation on the exploitation of innovations, managers need to strengthen their organisational resources.

2.13 The Mediating Effect of Organisational Culture:

The way in which a leader is led has a considerable bearing on the culture that it fosters. Personal growth and development may be a powerful tool for leaders to use when trying to instil organisational values in their followers. The setting of objectives, provision of opportunity, and provision of acknowledgement are all potential means of doing this. Regular one-on-one meetings and communication in both directions are

excellent techniques for enhancing both morale and productivity among staff members. Employees are more likely to have trust in their superiors when there is open communication between them and management, and when this contact is maintained consistently.

Leadership has become the most important factor in the successful management of businesses, societies, and entire nations. For businesses to successfully meet the ever-changing requirements of the modern business environment, they are forced to be nimble, adaptable, entrepreneurial and creative due to changing business and economic situations. Cultivating and perfecting these traits is inconceivable without a transformational leader who can put the pieces together and inspire others to work toward higher aspirations. In recent years, a large body of written material has been devoted to the study of leadership challenges, and as a result, the importance of leadership has become an independent reference point related to organisational management and sustaining the rate of change. Followers feel fulfilled because of the leader's guide; they have a vision for a better tomorrow. Leaders are responsible for providing the vision necessary to achieve goals (Alkraiji et al., 2022). Although there is a wealth of literature on the topic of transformational leadership, there is a lack of country- and region-specific research, especially in the Arab and Middle East regions. Currently, both the level of national leadership and the concept of leadership itself are undergoing a process of redefinition. Given this background, the purpose of this chapter is to attempt to understand the dynamics of transformational leadership and what this approach means for Saudi managers. In 2005, the Kingdom of Saudi Arabia agreed to join the World Trade Organisation to become one of the ten most dynamic economies in the world (Chien et al., 2022).

A company's culture is its collection of rules and values that are taught in the workplace and passed down from generation to generation. A company's culture encompasses not only the conventions, values, and assumptions that employees bring to their work but also the beliefs that employees have that might guide them in the right direction when faced with decision-making. These ideas have the potential to assist in directing individuals toward optimal practises and keeping them from wandering from the route that was meant for them to take. The leadership of an organisation is responsible for establishing the organisation's guiding principles, which are then used to develop the organisation's leadership style. Due to the fact that subordinates will be impacted by these beliefs and the actions of those in authoritative

positions, all parties should work toward becoming closer to one another over time. The establishment of norms of conduct, values, and ideas that are held in common by employees is the foundation of a wholesome culture inside an organisation. Leaders must acknowledge the significant role that they play in maintaining the culture of a firm. This would ensure that the individuals inside the organisation consistently engage with one another, minimising the likelihood of disagreements and establishing an atmosphere that is pleasant to work in.

Both organisational culture and innovation are related to how a company adjusts and grows to meet the demands of its customers and the ever-changing innovation landscape. According to Mukhezakule, and Tefera (2019), it is not sufficient to place one's attention just on the internal operations of a firm to achieve business success; rather, one must also examine the external environment in which the organisation must perform its functions. For the company to accomplish this objective, it will need to be creative in its search for distribution channels that are more effective for the products and services it offers.

If a culture does not innovate or adapt in response to the shifting cultural norms of its working environment, then that culture runs the risk of being overtaken in the not-too-distant future by a competitor that is more open to new ideas and is more adaptable. In other words, if a culture does not innovate or adapt in response to the shifting cultural norms of its working environment, then that culture runs the risk of being left behind. Record companies, for instance, quickly came to the realisation that to remain competitive in the market, they would need to adjust to a consumer culture that was increasingly dependent on the internet rather than physical record shops to discover new music. This was the case almost as soon as the internet became widely available. This realisation occurred at the same time that the Internet was first made available. As a direct result of this, the music business has to adopt new strategies to adapt to the shifting demands of the consumer landscape. The majority of record companies attempted to compete with new businesses that recognised a need brought on by popular culture and altered their business models properly. These new firms adapted their models to meet the needs that were created by popular culture. These organisations quickly realised that the culture could not be changed in any way, thus they were waging a struggle that they could never win. According to Szczepanska-Woszczyna (2015), to anticipate market demands in accordance with a cultural change that is anticipated, it may be required to break down obstacles that exist inside

the culture. This may have a favourable impact on the culture as well as innovation. Not only does this need the testing of novel ideas, but it also requires the proactive discovery of market potential that has not been exploited in the past. When a firm wants to remain at the forefront of a competitive market, it has to be ready to take calculated risks on occasion.

Company performance can be improved through innovative practices that are fostered by company culture. It is therefore safe to infer an indirect effect of culture on productivity. Culture determines the behaviour of organisational members, and culture is directly related to performance. According to the Saudi company's resource-based view, culture can be a source of durable competitive advantage because many of its basic characteristics are implicit and highly complex, making it difficult for competitors to imitate. The culture of the workplace has an impact on productivity. Hierarchical culture has an adverse effect on performance, while autocratic, market and clan cultures have favourable effects (Kılıç et al., 2019). Culture has an indirect impact on performance through innovation, as it can encourage or stifle creativity within an organisation depending on the values it fosters. Therefore, innovation can affect the operating conditions of the company. It can be argued that certain cultural norms have knock-on effects on performance by encouraging or hindering innovation. Companies with a positive culture that encourages risk-taking, innovation, and tolerance for mistakes tend to do better than those that don't. This is because firms with a high rate of invention and creativity can outperform their competitors in the quantity and quality of differentiated products. In the long run, a more innovative approach (typical of an authoritarian culture) may be the key to improving the company's bottom line (Tanveer et al., 2022). By contrast, the features of hierarchical cultures—the emphasis on procedures and guidelines that breed complacency and lack of creativity, excessive control, and lack of autonomy—are not universally credited with creating an environment conducive to innovation. Additionally, performance will suffer directly from the lack of innovation.

2.14 Association Between Leadership Style, Organisational Innovation, Employee Creativity and Organisational Culture:

According to (Tsai, 2011; Zheng et al.,2019; McGraw, 2022), transformational leadership has been shown to have a connection to organisational culture. A leader with vision may foster a culture of change that is open to new ideas and makes it

easier for such ideas to be implemented. The components of a culture that fosters creativity have been broken down into their components. They are as follows: a management style that emphasises tasks and interpersonal relationships; an important role for managers in stimulating innovation and triggering innovation of employees; motivating employees to be creative; a low level of danger that employees feel as a result of changes introduced in the company; proper organisation of work and working conditions that are aimed at stimulating employees' creativity; support for new ideas. The degree to which these factors are present in a company varies. The results provide credence to the conventional belief that creativity is linked to strong and visionary leadership as well as cultures that are welcoming of new ideas.

When the right conditions are met, leadership may foster innovation. While some aspects of leadership were positively correlated with creativity, the same was not true for other aspects of performance. The culture of Saudi businesses may be a contributing factor. The ability of leadership to foster innovation may depend on the context. Several studies have investigated which aspects of workplace culture encourage creativity. Employees are more likely to innovate when companies promote values such as competition, entrepreneurship, growth, diversity, risk-taking, creativity, and flexibility (Al-Ghazali, 2020). Thus, corporate culture appears to act as a moderator that strengthens the link between leadership and innovation. Positive leadership-innovation relationships may exist in organisations with a culture that encourages and supports innovation, whereas such relationships may not be possible in organisations with a culture that discourages and does not support innovation. Before launching a new leadership program, organisations should assess their current culture. There is some evidence that market or ad-hoc cultural types are associated with innovative thinking, but this shows conflicting results. Leaders' innovation output may be improved in temporary and market-cultural environments. More research is needed to determine whether culture mediates the link between leadership and creativity such that leadership fosters innovation in an enabling environment. Research has explored how culture acts as a mediator, while others have looked at how culture acts as a mediator. Along with other factors such as organisational learning and Saudi organisational learning, it is an important organisational dimension that promotes organisational innovation (Aina et al., 2019). There is also very little written about how company culture works in the healthcare industry and its outcomes. Given the above discussion and the evidence at hand, it seems reasonable to conclude

that more research is needed on the impact of transformational leadership, transactional and ambidextrous leadership styles on administrative and technological advancement in the aviation sector, and organisational culture in this relationship.

2.15 Leaders Integrating Innovation in the Civil Aviation Industry:

Assembling teams and guiding them to successful performance results are the responsibility of leaders. To achieve the best results for the team, an effective leader understands the value of embracing individual diversity and is skilled at bridging those gaps. This fosters a work climate that values innovation, initiative, and constant development. For the team to successfully embrace innovation, leaders must help each member of the group learn to apply their differences to the success of the group as a whole. When a person has a team that is tuned into the market and what it is telling them they must do, innovation can develop (Vaughn et al., 2020). Few firms and individuals in the aviation industry will take the necessary steps and make the necessary investments in people and resources to bring creative ideas to fruition, even if many will profess to be aware of the breakthroughs happening in marketplaces throughout the world. The transformation of the workplace and innovation are two sides of the same coin. Employees can serve as the cornerstone for an organisation's growth and sustainability if the civil aviation leader provides them with the opportunity to adopt an "entrepreneurial attitude" and demonstrate their ideas and aspirations. The secret to a successful workplace resurrection and an opportunity to re-energise individual and organic organisation performance is to give people the freedom to drive innovation and demonstrate initiative (Hartzell and Gilbert, 2018).

The old ways of thinking must be dismantled to make way for new ones. This calls for greater transparency from each team member than ever before. As a result, each team member must have faith in themselves to have faith in one another. When a person can build trust, they become more patient, a better listener, and gradually more appreciative of the fresh encounters and connections that are happening (Jannotta et al., 2020). Then, take a step back and realise that the promise of a new work environment can be realised if they can coexist with others in ways that create a familial tie.

In the view of Martinez-Moyano (2006), defines Collaboration as the act of performing a task or achieving a goal while cooperating with another person, group, or organisation. Real collaboration does not start to take hold until a person starts to

trust himself and other people. Collaboration is about more than just cooperating closely; it is also about taking calculated risks to explore novel perspectives and produce better results (Shaturaey and Bekimbetova, 2021).

Teams that lack effective communication struggle to find their groove and are less likely to locate the elements necessary to foster collaboration and trust. The communication style establishes the tone and encourages creative thinking that results in novel innovations. The members of a team should regard themselves as an innovation lab, continually pushing one another to absorb the ideas and ideals of others and sow the seeds of discoveries (Osman et al., 2021).

Aviation Leaders need to push each team member to think critically and view everything through the lens of continuous improvement if they want their teams to innovate. By adopting this perspective, one must adopt the mindset of a "courageous enabler", someone who assumes aviation leadership and adopts the role of a change agent in favour of constructive disruption that eventually enhances operations and performance. Every aviation leader must embrace change if they do not want to disappear. As a result, their teams must be given the same mandate. To assume the position of a change agent, one must adopt an entrepreneurial mindset, accept risk as the new normal, and start looking for opportunities everywhere. Innovation becomes automatic as a leader goes along.

Aviation leaders frequently make course corrections along the road to identify the ideal mix of individuals for a team. Achieving perfection is a utopian goal, but changing the course will bring closer to the potential of the culture which the leader in the civil aviation industry is trying to build. Course correction also keeps people alert and trains them to adjust to new situations so they may show off their talents and skill sets to new acquaintances in a variety of settings (Shaturaey and Bekimbetova, 2021).

In the Saudi Aviation industry, creative behaviour is defined as a willingness to come up with new ideas and persuade customers to improve the quality of the services provided. Service behaviour is also considered an indication of the overall level of service provided by the company. Because of this, many companies are finding different ways to encourage innovative behaviour among employees. With help at the organisational level as well as at the individual level, innovative behaviour is expected to be promoted in the workplace. When communicating with employees about business goals, managers often substitute for the organisation itself. Therefore, workers tend to interpret support from the organisation as support from the

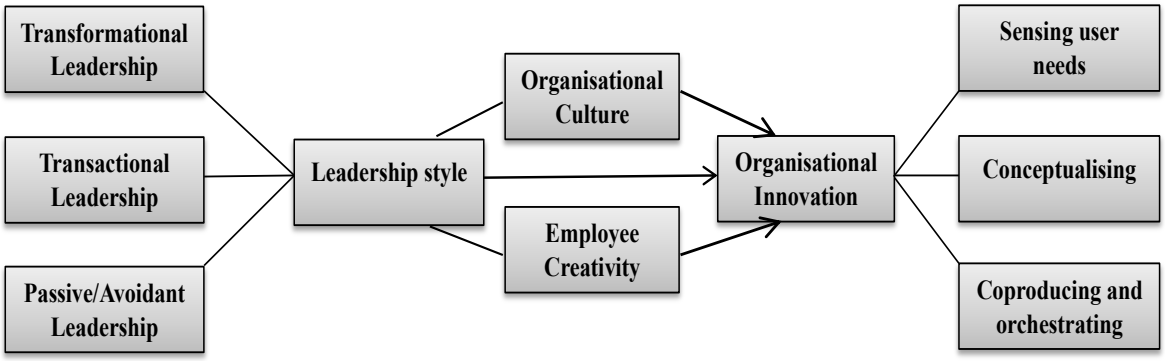
supervisor. Several studies have been carried out on the support provided by regulators in the aviation industry (Shehawy et al., 2018). For example, employees' perceptions of support from their supervisors may improve their compliance behaviours, as well as their well-being at work, and even behaviours outside of their roles. In conclusion, employees who have a good relationship with their supervisor are more likely to engage in innovative behaviours. This is because the relationship can provide employees with the support, they need to successfully navigate difficult situations that arise in the workplace. Based on the discussions held so far, employees realised that their managers would support them, and this became the driving force for activating innovation activities. Job engagement is expected to mediate the link between perceived supervisor support and service innovation behaviour. Employee job satisfaction is related to perceived support from supervisors related to extra-role activities (e.g., innovative behaviours) (Chien et al., 2020). Through their commitment to work, employees' creativity can be built with the help of their supervisors.

2.16 The Initial Conceptual Framework:

The initial conceptual framework was designed based on independent and dependent variables as well as mediating mechanisms. The independent variable comprises leadership styles. Leadership styles were further subdivided into different sub-scales including transformational leadership, transactional leadership, and passive avoidant leadership. The dependent variable comprises organisational innovation. The initial relationship between organisational leadership and organisational innovation is conceptualised via the mediating mechanisms of organisational culture and employee creativity. In the light of empirically answering the first research question, this conceptual framework was modified in the results chapter of this study to reflect the leadership style that turns out to be significantly observed in Saudi aviation.[1]

[1] The modified conceptual framework based on the empirical answer of the first research question is presented in figure 4.

Figure 1: The Initial Conceptual Framework



2.17 Conclusion:

Effective aviation leaders have used a range of tactics to tighten and supervise the process, including standards of behaviour, direct staff monitoring, stricter contract terms, and a decrease in the number of contractors. The volume and diversity of information collected, the strength of the signal sent to diverse stakeholders, and the type and amount of change that is likely to result from the process are all determined by the depth or intensity with which the process of monitoring is pursued as well as the broadness or degree of overlap in the sets of selection step to monitor. The firm's plan implementation will ultimately be impacted by all of these variables. The civil aviation leader's job is to design the ideal system for carrying out the strategy. According to leaders who subscribe to this viewpoint, the process itself should be kept under close observation. There is an understanding that the final product will inevitably change, thus the more crucial goal is to increase strategic thinking skills among the group so that starting by changing when it occurs, may be assimilated more quickly and thoroughly. Leaning toward the human dimension, leaders see strategy execution as an ongoing work-in-progress that is more free-flowing, never truly complete, and constantly being shaped by interactions with the internal and external environment as well as by the issues and insights that emerge from the people across the organisation. Aviation leadership is needed to regularly monitor the process, going back to important concepts that will frequently guide the process of executing a plan to review key presumptions and, based on the new information learned, adjust course. One of the most important components of successful aviation leadership in developing and executing strategies is effective communication abilities.

Chapter Three: Research Methodology

3.1 Introduction:

This is one of the most important chapters of the research process because it highlights the applied research strategies, methods, approaches and investigation type using the research onion methodology given by Saunders (Saunders, 2014). In addition, the researcher has provided relevant justification for implementing the research methods related to the study topic. Major highlights of this chapter cover critical research aspects including sample size determination, data analysis, and hypothesis development. The sample size of this study is determined based on Cochran's (1977) sample size determination framework where a total of (355) Saudi Arabia aviation industry employees is decided upon given the maximum population variability assumption for unbounded populations, population proportion of 50%, and the traditional significance level of 5%. Data analysis in this study precipitates with a Principal Component Analysis (PCA) on a pilot study of 50 independent respondents through the method of Kaiser's (1985) varimax based on the orthogonal or uncorrelated approach to factor rotation. The objective is to assess the eigenvalues of the individual attributes of variable measurements in the data collection instrument. To answer its first research question, the study analyses the significance of the difference between mean respondents for the different leadership styles measured in the study. To answer the second, third, and fourth research questions, the study applies a typical protocol to analysing relationships with intervening mechanisms. Finally, the hypothesis development in this study replicates the theoretical predictions with respect to the positive impact of organisational leadership on organisational innovation, the positive impact of employee creativity on organisational innovation, the positive impact of organisational culture on organisational innovation, the positive impact of organisational leadership on employee creativity, and the positive impact of organisational leadership on organisational culture.

3.2 Research Philosophy:

This study represents an empirical analysis that addresses the impact of transformational leadership style on organisational innovation via the mediating mechanisms of organisational culture and employee creativity in the KSA aviation industry. It follows that the study adheres to the quantitative (i.e., traditional scientific) research paradigm and maintains all underlying ontological, epistemological, axiological, and methodological assumptions (Scotland, 2012).

Under the quantitative research paradigm, the ontological philosophical assumption sums up the researcher's position on and beliefs about the nature of reality, data, observations, and stylised patterns, and how such observations can be interpreted and made sense of (Ivankova, and Creswell, 2009; Creswell 2002). Quantitative researchers thus typically adopt a realist ontological stance, which implies that there is an objective reality that exists independently of the researcher's own perception, intervention, or interpretation (Slevitch, 2011). In this concern, the quantitative ontological position maintained in this study leads the researcher to believe that the relationship between transformational leadership and organisational innovation along with the influence of the mediating mechanisms of organisational culture and employee creativity can all be measured, observed, and analysed using empirical evidence based on KSA aviation industry data. The quantitative ontological position further maintains that documenting such empirical evidence in terms of uncovering causal relationships and patterns in data through rigorous and systematic methods can meaningfully contribute toward an understanding of the underlying fundamental laws governing the relationship between organisational leadership and organisational innovation (Creswell, 1998). Moreover, the quantitative ontological assumption maintained in this study greatly instructs the approaches via which research questions are formulated, data is collected and analysed, and conclusions are drawn. In particular, the research questions formulated in this study revolve around documenting effects and measuring their statistical significance as if such effects were out there waiting to be measured and statistically assessed.

The epistemological assumption under the quantitative research paradigm represents the maintained hypothesis and researcher's belief set about how knowledge is acquired, validated, and interpreted (Yilmaz, 2013). In quantitative research, the dominant epistemological stance is that of deduction where a theoretical structure is essentially mandated before researchers can approach data for documenting empirical

evidence, performing statistical analysis, and reporting replication studies to establish the reliability and validity of their findings (Scotland, 2012). It follows that the quantitative epistemological stance reduces the researcher's work to testing such structure against observed data to falsify the status quo and advance alternative theoretical frameworks (Slevitch, 2011). The quantitative epistemological assumption thus fully instructs the key design and research methods aspects of data collection, data analysis, interpreting (and generalising) research results, and reporting theoretical and applied conclusions. Indeed, the epistemological assumption is indispensable for quantitative researchers to critically evaluate their research process and communicate the strengths and limitations of their findings to the academic community (Creswell, 1998). In this vein, quantitative epistemology often manifests through the philosophical positions of positivism or post-positivism. Whereas positivism posits that knowledge can be obtained through observable and measurable phenomena, leading to objectively testable findings and generalisable truths, post-positivism acknowledges the role of the researcher in interpreting data but still emphasises objectivity and the use of systematic methodologies (Ivankova, and Creswell, 2009; Creswell 2002). Toward this end, the epistemological position adopted in this study is that of post-positivism where the limitations of positivism are acknowledged while still predominantly valuing empirical evidence and rigorous methodological inquiry when reaching findings and reporting conclusions (Scotland, 2012). In this context, though post-positivism may allow researchers to bring their subjective perspectives and biases to the research process, I refrain from involving any subjectivity in this study. I fundamentally chose post-positivism over positivism to recognise the challenges associated with achieving complete objectivity while emphasising the importance of critical thinking, reflexivity, and openness to multiple perspectives in the conduct of all design aspects of this research. Toward this end, an updated of positivism in quantitative research, post-positivism is a philosophical stance that emphasises objectivity, measurability, and the use of empirical evidence to generate knowledge (Creswell, 1998). Post-positive researchers still strongly believe that reality can be studied through systematic observation and measurement and that scientific methods can lead to reliable and objective findings (Slevitch, 2011). However, post-positivism deviates from mainstream positivism by putting researchers in a philosophical position to approach their studies with a degree of scepticism towards absolute truth claims and to consider the context and assumptions underlying

their research designs and interpretations of data (Yilmaz, 2013). So long as quantitative researchers aim to collect and analyse data systematically and objectively, post-positivism reminds them to remain aware of any subjectivity that might be involved in critical aspects of the research design including data collection and analysis (Creswell, 2002). Post-positivism thus predisposes researchers to embrace uncertainty, appreciate the complexity involved, question the status quo, and engage in ongoing dialogue and reflection to improve the quality and rigour of their research endeavours. It follows that, under the quantitative research paradigm, the post-positivist position often involves validation strategies and credibility-enhancing protocols such as triangulation (using multiple methods or sources of data to corroborate findings), member checking (seeking feedback from participants), and peer debriefing (discussing research processes and findings with advisors and colleagues) (Ivankova, and Creswell, 2009; Creswell 2002). On this subject, no personal subjectivity is recognised or involved in this study. Nonetheless, the post-positivist position I adhere to manifests through the validation strategies I employed throughout the data analysis. For instance, this study employed and reported two different validation methods and model estimation frameworks. Since the theoretical framework adopted in this study doesn't specify the exact mathematical specification of the relationship between leadership and organisational innovation, that specification could be linear or otherwise non-linear. On one hand, in case the correct data-generating processes were linear, traditional least squares and related PCA validation will be considered more efficient. On the other hand, if the true data-generating process were nonlinear, PLS and related CCA (confirmatory components analysis) would be more efficient. Along these lines, the study reports and interprets results based on both analyses in direct recognition of the post-positivist epistemological assumption in quantitative research. Except for this validation aspect, other key aspects of data collection and analysis in this study are equally consistent with mainstream positivism. For instance, this study maintains objectivity by eradicating any personal biases, collects data formally, employs measurement quantification, and analyses collected data using statistical methods to draw conclusions and report generalisability, predictive ability, and replicability. Furthermore, this study formulates hypotheses based on an existing theoretical framework, and tests null hypotheses using the quantitative data collection and

analysis approach of a fully structured survey design to have such hypotheses rejected or falsified based on the identification of patterns, relationships, and trends in the data.

Closely related to the epistemological philosophical assumption, the methodological assumption addresses the researcher's choice of methods under the quantitative paradigm (Scotland, 2012). Such assumption in quantitative research accommodates the methods of association, parsimonious explanation, causality, and factor reduction. Along these lines, this study employs the method of association based on a predefined theory framework (Ivankova, and Creswell, 2009; Creswell 2002). Moreover, the study also uses factor reduction (or reductionism) where the rather complex data structure is reduced into latent variables and formative components where an analysis and understanding of the relationships between such components is made both feasible and interpretable (Slevitch, 2011).

In view of the preceding, whereas the ontological assumption epitomises how researchers initially approach the world within which the research problem is situated and the epistemological assumption embodies knowledge generation and the conduct of the research process itself, the axiological assumption in quantitative research pertains to the values, biases, and beliefs that researchers hold with respect to influencing the research outcomes and interpretation of findings (Creswell, 1998). In quantitative research, the axiological quantitative position reiterates the principles of objectivity and neutrality, aiming to minimise the influence of the researcher's values and preferences on the research outcomes (Yilmaz, 2013). Quantitative researchers thus typically exert worthwhile efforts to maintain a level of detachment from the subject matter being studied, focusing on gathering data quantitatively based on the instructions of a predefined theoretical framework and analysing such data using statistical methods to examine value-free research outcomes (Scotland, 2012). The axiological quantitative position is thus rooted in the belief that objectivity and impartiality are essential for producing reliable and valid research results (Ivankova, and Creswell, 2009; Creswell 2002). Toward this end, the axiological position taken in this study is that documenting the impact of organisational leadership on organisational innovation via the mediating mechanisms of employee creativity and organisational culture with empirical evidence drawn at the KSA aviation industry may contribute to both theory and practice in a value-free (as opposed to value-laden) fashion.

3.3 Research Approach:

Based on the findings of their studies, Gupta and Gupta (2022) classified different types of research procedures as either deductive or inductive. One notable illustration of the deductive research technique is the formulation of a hypothesis, which may be confirmed by reviewing the existing body of published research. On the other hand, deductive research methodologies try to identify causal relationships between the studied variables. When researchers apply the deductive approach, collecting, analysing, compiling, and interpreting results follow a certain order. They are interpreted as organised, which may lead to various findings. When using deductive reasoning, one narrows their focus from a broader perspective to a more specific one. This kind of research is known as "top-down" research because it proceeds from the most general findings to the most specialised ones.

On the other hand, the inductive method starts with specific examples before going on to broader generalisations (Hammoudeh, Tedmori and Obeid, 2021). In contrast, to deductive reasoning, inductive reasoning does not begin with formulating a hypothesis by examining previously known information. On the other hand, the inductive technique is commonly referred to as the "bottom-up" method, which contrasts with the deductive method.

In the following study, the researcher applied a deductive approach to complete the research. The rationale for using the deductive approach is that the researcher was allowed to examine well-known theories that underline when examining the aspects involved in the role leadership styles required within the aviation industry (Giannetti et al. 2021). Moreover, this study will follow the deductive approach because it is very important if there are any number of possible explanations regarding research phenomena (O'Reilly, 2009). The deductive approach follows the positivism philosophy, leading to quantitative research using a survey questionnaire. Therefore; the main benefit of using the deductive approach is that it encourages to use of quantitative research methods (Aneta, and Jerzy, 2013). The deductive approach helps the researcher to formulate a hypothesis based on theories and test the hypothesis using statistical methods; therefore, it leads to a quantitative research method (Aneta, and Jerzy, 2013). The advantage of using the deductive approach is that it helps the researcher to predict what could happen in the future and to establish the outcome of what will happen in the future to be encountered. Also, there is a weakness of inductive reasoning that it is incomplete and might reach false concluding remarks

but, in this study, the researcher assured the accuracy of results through reliability analysis (Melnikovas, 2018 and Proudfoot, 2023).

In view of the preceding, this study employs the deductive approach in terms of pragmatism and the deductive approach. In fact, the study adheres to the traditional scientific paradigm and estimates parsimonious specifications instructed by the theoretical framework advanced (Setiawan et al., 2021).

3.4 Research Design:

According to Zhang (2022), research designs include specific information on the investigation procedures and methods. This definition originates from the source that was used before in the discussion. In addition, research design assists academics in zeroing in on the research procedures that best fit the subject matter of a particular study. According to Rinjit (2020) claims that when selecting a topic for research, one must take into account not only the overall type of study (survey, experiment, semi-experimental, statistical, review) but also the specific type of study (observational, experimental, quasi-experimental, statistical) that is being carried out (research problem, descriptive and case study). Researchers must be fully aware of the many available options before choosing a study design appropriate for their subject matter. As noted in Ørngreen and Levinsen (2017), research design can be classified into quantitative, qualitative and mixed research methods (Schoonenboom, 2023).

3.4.1 Quantitative Research:

According to Cr (2020), quantitative research aims to study the link between gathered data and insights derived through computational analysis. The statistical methods and tools that are a part of quantitative research methods may also be used to confirm or reject a theoretical stance on an issue about organic research. When doing quantitative research, a particular focus is placed on the “what” component of a previously observed event. Among the two research design choices including qualitative and quantitative research design, the study followed the quantitative research design. The efficiency and speed of the quantitative study have been proven to be attractive with respect to the topic of the study. The use of quantitative tools has also made data computing easy through statistical tools (Sahay, 2016).

The quantitative approach, using statistical data, produces insights that may be put into practice. This is because cold, hard statistics might provide a more objective perspective on how company management should be conducted. The knowledge

obtained from complex numerical data and analysis may be useful when it comes time for the organisation to choose its next course of action.

3.4.2 Qualitative Research:

In contrast to quantitative research, qualitative research attempts to answer questions such as “why” and “how” about the phenomena being investigated (Ormston et al., 2014). Because the results of qualitative research are presented in narrative rather than numerical form, it is sometimes misunderstood and wrongly characterised as subjective. This is an inaccurate characterisation. Because there is no inherent consistency across results, doing quantitative analysis on qualitative research data is not always practicable. This is because of the lack of inherent consistency since there is no guarantee that the results will be consistent.

3.4.3 Mixed Research:

The collection and examination of qualitative and quantitative data are at the heart of the methodologies that make up mixed research (Curry, Nembhard and Bradley, 2009). Researchers analyse a phenomenon using statistical data and anecdotal evidence in these inquiries. In addition, the mixed method allows researchers to investigate the problem from the perspective of both an individual and a more generalised group (Proudfoot, 2023). This study used a quantitative methodology for data collection, including a survey and a questionnaire. The findings of this research are simple to comprehend and keep in mind because quantitative research techniques provide readers and reviewers with one-word summaries of the information gathered (Bannon, 2013). When doing research, using a quantitative approach provides several crucial advantages, one of the most essential being the simplicity with which supporting data may be provided. On the other hand, the continuous or consistent response obtained by quantitative research makes it much easier to arrive at the ultimate conclusion. Because of this advantage, quantitative research is much more effective. It is common practice to combine qualitative and quantitative approaches during a study. This is done so that the shortcomings of the former may be made up for by the latter. The addition of these new data has significantly increased the significance of the study’s findings and their applicability in the real world. The main concern of using quantitative research is that it provides a better understanding of research issues through statistical findings. The main benefit of using quantitative research is that it stresses "objective measurement and "numerical analysis", whilst also collecting data from a large sample (Park, and Park, 2016). It also has excellent

flexibility to use many study designs such as observational studies, or randomised trials to explore more information by integrating quantitative and qualitative data and analysis techniques.

Highlighting the benefits of using the quantitative research method, this study will adopt the quantitative method (Ivankova, and Creswell, 2009; Creswell 2002). In particular developing and using factor analytic scales (Kline, 1994) for leadership styles, organisational culture and innovation based on existing scales (to be identified in the next phase of the research).

3.4.4 Choice of Quantitative Research:

In view of the possible research design alternatives of quantitative methods, qualitative methods, and mixed methods, this study applies quantitative research to study the impact of organisational leadership on organisational innovation in the aviation industry in KSA as mediated by employee creativity and organisational culture consistent with the theoretical framework of Setiawan et al. (2021). This choice is warranted given the three main features of this study. First, the study advanced quantitative research questions that can only be answered with a survey design consistent with quantitative research. In particular, the research questions advanced in this study predispose the research processes toward collecting data on particular variables that are associated with one another via a predefined conceptual framework. Questions are then answered via a research design that attempts to reject the status quo of no relationship between the variables involved with empirical evidence that may otherwise support the alternative explanation (i.e., the theoretical prediction). Second, employing a survey design to answer qualitatively formulated research questions by rejecting the status quo is conducive to a deduction approach to human inquiry. This deduction approach is indeed strictly consistent since it allows the researcher to test general or theoretical predictions against particular real-world data where the outcomes of such testing can be unambiguously interpreted and objectively documented. Third, this study adheres to post-positivist research philosophy where features of positivism including objectivism and empiricism are supplemented with a validation strategy that recognises hidden aspects of real-world data that are beyond the control of the researcher. In this respect, this study recognises whether the true data-generating process governing the relationship between organisational leadership and organisational innovation is an aspect that is beyond the

researcher's control since such an aspect wasn't specified in the theoretical framework of the study. Along these lines, this study performs a validation strategy where the nonlinear estimation of PLS is reported in addition to the linearly straightforward Least squares regression. To reiterate, the researcher recognises that the outcomes of the study may be sensitive to the estimation framework used, and such sensitivity is beyond the researcher's control.

3.5 Investigation Type:

Investigation in a research process can be defined as a systematic approach in which a researcher uses various methods to collect data, such as interviews and surveys based on the study nature. There are three research investigation types: descriptive, explanatory, and exploratory.

3.5.1 Descriptive Investigation:

A descriptive research study focuses on the defining characteristics of the group being investigated to learn more about the group that is the subject of the inquiry. To accomplish this goal, data about the people who make up a community or group, such as their names, places of residence, and the dates of their births and deaths, is collected and analysed to respond to various questions. It is not impossible to achieve this goal by using a database. The descriptive analysis does not try to explain the phenomenon that is the subject of the investigation; it may be dependent on chance or be quasi-experimental. Descriptive inquiry is a study that makes it easier to describe the variables that lead to a particular research problem. Therefore, descriptive research is often used in quantitative studies to generate hypotheses that need validation using more stringent research methods.

3.5.2 Explanatory Investigation:

Explanatory research intends to shed light on a phenomenon that has not been previously investigated or characterised in sufficient detail. Its major function is to point viewers toward other websites that, in the author's opinion, provide more comprehensive information on the subject. In order to complete the explanatory study, the researcher will need to rely heavily on secondary research methods. Some examples of these methods include reading books and academic publications. As a direct consequence of this, it is abundantly obvious that exploratory and explanatory

questions are used in qualitative research. Under the quantitative approach, the researcher selected the survey strategy for this study. There are various advantages of the survey strategy due to which the researcher selected this strategy and those include that this strategy was easy to administer in comparison to qualitative and the data collection methods were easy and consumed less time. The survey strategy was much more cost-effective and the researcher managed to collect the survey online through email. The researcher selected the strategy to avoid geographical dependence as there was a limitation of time in the study (Melnikovas, 2018).

3.5.3 Exploratory Investigation:

Exploratory research aims to understand a subject better rather than provide a comprehensive explanation. It is not the intention of an exploratory investigation to come up with a solution to the problem at hand; rather, the focus is on enhancing the researchers' comprehension of the subject matter. After narrowing down the specific nature of the problem, the researcher will likely use various strategies to locate a workable answer.

In the following study, the researcher has decided to use descriptive investigation using quantitative methods to examine leadership styles and traits in the aviation industry. The justification for using a descriptive investigation in this research is that the researcher was enabled to find potential factors associated with leaders' work in the aviation industry.

3.6 Variables Selection:

The selection of variables in this study comprises dependent and independent variables. Additionally, the researcher has used organisational innovation as a dependent variable. Whereas transformational, transactional, and passive avoidant leadership as independent variables. The study also employs the mediating mechanisms of employee creativity and organisational innovation to channel through the impact of the organisational leadership most pronounced in the Saudi Aviation industry on the respective level of organisational innovation. In this concern, the study applies the standard protocol to empirical analysis with mediating influences where such influences are treated as independent variables with respect to the study variable of organisational innovation and as dependent variables with respect to the explanatory variable of organisational leadership.

3.6.1 Questionnaire Development and Variable Measurement:

As shown below in table 2 (measuring variables), appendix 3 (MLQ), and appendix 4 (CDQ2), the researcher applied a multiple leadership questionnaire (MLQ) and the Organisation for Economic Co-operation and Development (OECD) Oslo Manual to measure variables. According to the study by Schriesheim, Wu and Scandura (2009), a multiple leadership questionnaire (MLQ) is a psychological inventory consisting of 36 items about leadership styles and 9 items about leadership outcomes. In contrast, as the internationally recognised methodology for collecting and using innovation statistics, the Oslo Manual is divided into the measurement of innovation, concepts and definitions, and methods for collecting and analysing statistics on business innovation. Besides the measurement of leadership styles and organisational innovation, this study is interested in measuring employee creativity and organisational culture as per the theoretical framework of Setiawan et al. (2021). Toward this end, the study measures employee creativity according to the questionnaire developed by Peng et al. (2014) questionnaire, and organisational culture according to the organisational culture assessment scale reported by Sashkin and Rosenbach (2013). The questionnaire employed in this study is directly linked to the research questions since the three different leadership styles are measured according to MLQ, organisational innovation is measured according to OECD, employee creativity is measured according to Peng et al. (2014), and organisational culture is measured according to Sashkin and Rosenback (2013). For instance, the first section of the questionnaire (MLQ) is linked to answering the first research question (RQ1) of the study concerning the identification of the leadership style significantly observed in Saudi aviation. Along the same lines, the first and second sections are both linked to answering the second research question (RQ2), the first and third sections are both linked to answering the third research question (RQ3), and the first and fourth sections are both linked to answering the fourth research question (RQ4).

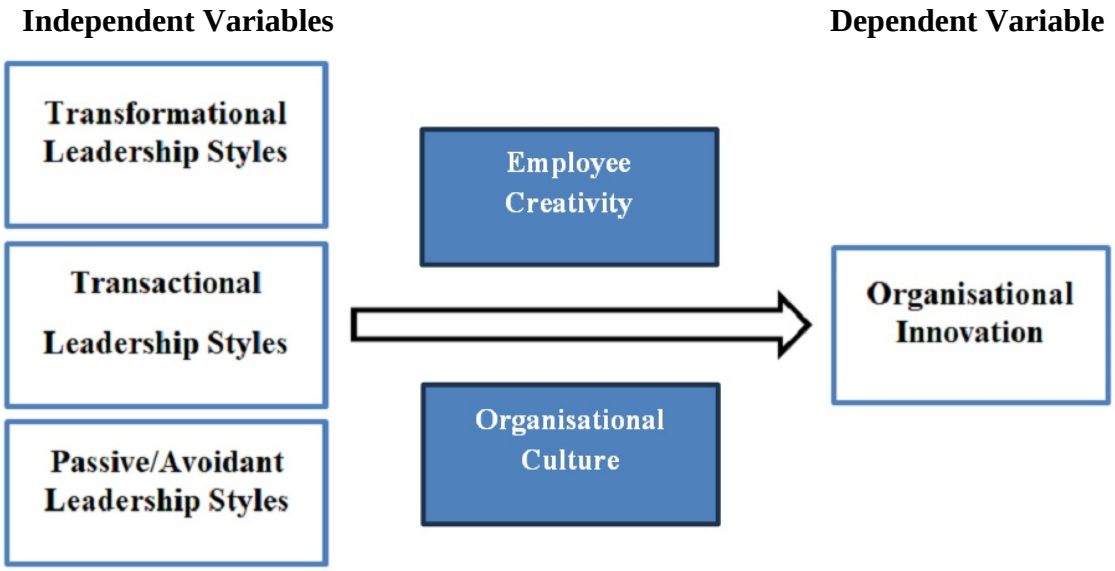
Table 2: Measuring Variables.

	Definition	Measure	Groups	Scale	Sub-scale	Measurement	Reference
Leadership Style	"Leadership style is the relatively consistent pattern of behaviour that characterises a leader." (DuBrin, 2001)	Multifactor Leadership Questionnaire Form 5X-Short	Transformational Leadership Styles	Idealised Influence (Attributes)	I go beyond self-interest for the good	Ordinal Using 0 = Not 1 = Once in 2 = Sometimes 3 = Fairly 4 = Frequently, at all a while often if not always.	Bass, B. M., and Avolio, B. J. (1995).
				Idealised Influence (Behaviours)	I consider the moral and ethical consequences of decisions.		
				Inspirational Motivation	I talk optimistically about the future		
				Intellectual Stimulation	I re-examine critical assumptions to question whether they are appropriate		
				Individualised Consideration	I help others to develop their strengths.		
			Transactional Leadership Styles	Contingent Reward	I make clear what one can expect to receive when performance goals are achieved.		
				Management by Exception: Active	I keep track of all mistakes.		
			Passive/Avoidant Leadership Styles	Management by Exception: Passive	I wait for things to go wrong before taking action.		
				Laissez-Faire	I avoid making decisions.		

Organisational Innovation	"organisational innovation is implementing a new organisational method in the firm's business practices, workplace organisation or external relations. Organisational innovations tend to increase firm performance by reducing administrative and transaction costs, improving workplace satisfaction (and thus labour productivity), gaining access to non-tradable assets (such as non-codified external knowledge) or reducing costs of supplies" (OECD Oslo Manual, 2005).	OECD Oslo Manual	Renewing the organisation structure to facilitate teamwork Renewing the organisation structure to facilitate coordination between different functions such as marketing and manufacturing Renew the routines, procedures and processes employed to execute firm activities innovatively. Renewing the human resources management system. Renewing the supply chain management system Renewing the organisation structure to facilitate project-type organisation. Renewing the in-firm management information system and information sharing practice. Renewing the organisational structure to facilitate strategic partnerships and long-term business collaboration.	Ordinal 0 = not relevant, then running from 1 not important to 5 very important, or 1 not important to 3 important.	OECD Oslo Manual (2005).

Employee Creativity	Generation of new ideas and inventive problem-solving (Peng et al., 2014)	Peng et al. (2014).	I feel that I am good at generating novel ideas. I have confidence in my ability to solve problems creatively I have a passion for further developing the ideas of others. I feel that I am good at adopting new methods at work.	Peng et al. (2014).
Organisational Culture	Active engagement in mutual learning, trusting relationships, and collaboration Sashkin and Rosenbach (2013).	Sashkin and Rosenbach (2013) .	In our company, employees are actively engaged in mutual learning. In our company, employees have trusting relationships. In our company, employees are collaborative. Our company shares its norms, values, and information.	Sashkin and Rosenbach (2013) .

Figure 2:Independent and Dependent Variables



Leadership can be made up of many different elements, but the Multifactor Leadership Questionnaire (MLQ—also known as MLQ 5X short or standard MLQ) offers a comprehensive measure. It assesses both passive and transformational leadership styles. This MLQ can help better understand how self-esteem compares to others and also how you are seen by those with whom you interact. It is a good way to set realistic expectations of what you need to be seen as a transformational leader. Success can be measured by retesting with a program that tracks changes in leadership style (Bass, and Avolio, 1996). MLQ's guide provides a solid base for leadership training. According to The MLQ leadership scales yielded reliable scores and were able to accurately predict the effectiveness of work units (Rowold, 2005).

The most important leadership dimension influencing the process of innovation in an organisation is workgroup support which can be in the form of a small token of recognition and teamwork on a weekly basis for knowing what other employees are doing in the organisation. Thus, a clear understanding of the organisation's culture and the role of leadership dimensions might help leaders in influencing or increasing innovation productivity (OECD, 2018).

The rationale for choosing MLQ and the OECD Oslo Manual for measuring variables is that the multifactor leadership questionnaire MLQ evaluated a broad variety of leadership styles, ranging from leaders who are passive to leaders who offer incentives to their followers. For this reason, the multifactor leadership questionnaire

was selected to assess variables. It also evaluates leaders who can influence their followers' behaviour so that they can lead. The use of MLQ was shown in the subsequent research by allowing the researcher to classify the aspects of transformational leadership necessary in the aviation business. This, in turn, assisted leaders in recognising how they might assess their followers' performance. Participants are given the MLQ 5x-Short (the current, classic form) and asked to react to all 45 questions using a behavioural scale with 5 points ranging from "Not at all" to "Frequently if not always."

The researcher decided to use the Oslo Manual because the scale tends to develop around a number of different manuals dedicated to the measurement and interpretation of data associated with innovation, technology, and science. In the subsequent research, the use of the Oslo Manual made it possible for the researcher to include handbooks that covered areas such as research and development, patents, globalisation indicators, and data about information technology and biotechnology.

The Implementation Leadership Scale (ILS) is yet another important scale that may be used in the following research in order to measure and assess the variables. With this specific scale, researchers can evaluate the behaviours and actions of leaders who actively promote the successful implementation of Evidence-Based Practice (EBP). The most extensively researched and used measure of leadership in organisations is the multifactor leadership questionnaire (MLQ), which is backed by the opinion expressed by (Aarons, Ehrhart and Farahnak, 2014). In addition, the scaling system incorporates an evaluation of transformational leadership, an aspect of management that has been shown to be connected with a company's success. In contrast to (ILS), (MLQ) has effective psychometric features such as predictive validity and reliability. These benefits may be obtained by using the questionnaire. Furthermore, the mediating variable of employee creativity is measured according to the questionnaire developed by Peng et al. (2014), and the mediating variable of organisational culture is measured in accordance with the scale reported by Sashkin and Rosenbach (2013) .

All questionnaires employed in this study were in English and no translator was needed. The study further ensures that the data collection instrument employed directly addresses the research questions and accurately captures the information necessary to answer them.

3.7 Research Strategy:

The strategy of conducting an attitudinal survey will be used in order to collect data from employees (i.e., leadership followers) in the aviation industry in KSA to assess their perceptions of different types of leadership styles and their perceptions of innovation within the organisation. As a result of the quantitative focus of this research, the researcher will collect data via the use of a Likert-type instrument. A Likert-type instrument is recommended above any other technique since it enables the collection of data directly from the source and allows for a larger sample size. Likert-type instruments will be used as a technique of data collecting because, in addition to their cheap cost, they save both time and money compared with other methods, making it an attractive option. In addition, it provides a quantitative dataset, making it much simpler for this researcher to do data analysis and use statistical tools (Quick and Hall, 2015; Johnson et al., 2007). In this study, The General Authority of Civil Aviation (GACA) and Alpha Star Aviation Services acted as the source of data for this enquiry and provided the sample basis.

3.8 Time Horizon:

The time horizon determines whether the research is cross-sectional, short-term (including data collection at a given time), or longitudinal (requiring data collection regularly over a long period to compare data). This study will be a cross-section due to data will be collected at one point in time because all the data needed for this study come from the same place. In particular, data collection for this study is performed cross-sectionally and at Saudi Aviation industry employees during the two months starting May 1, 2023 and ending July 1, 2023.

3.9 Data and Purposive Sampling:

According to Al Kilani and Kobziev (2016), data collection is the process of collecting and analysing information on relevant variables following a predetermined method. In addition, the collection of data helps researchers to reply to the study topic that has been suggested, test the hypothesis that has been formed, and assess the findings. There are two major sources of data collection primary sources and secondary sources (Saunders et al., 2012).

When gathering primary data, information is often gleaned from resources that have not previously been investigated. The implementation of primary data collection needs more time and financial investment. Primary data gathering may also be

divided into qualitative and quantitative subcategories. By using the quantitative method, information is gathered via questionnaires and surveys, which are then converted into numerical form so that conclusions may be drawn from the findings. Despite this, collecting primary qualitative data often involves conducting interviews, making observations, and participating in focus groups. As opposed to primary data, secondary data is obtained from a wide range of sources that have previously compiled material on the topic of the study (Hox, and Boeije, 2005).

In view of the preceding, this study collects data primarily through quantitative data collection instructed by the survey design research methods (Saunders et al., 2012). Toward this end, the researcher prepared an information sheet, and consent form for participants before starting the questionnaire which consisted of two parts, the first part (3) questions included general information and demographic questions about the research sample, which included (Gender, Age, and Education), and the second part included the attitude scale, which consisted of (28) items divided into sections related to leadership styles, organisational innovation, employee creativity and organisation culture on the five-point Likert scale as shown in table 3 below. All items in the second part of the questionnaire are examined for reliability, internal consistency, and validity using conventional thresholds from the statistics literature. Also to answer the research questions.

Table 3: Likert Scale.

Never	Rarely	Sometimes	Frequently	Always
1	2	3	4	5

The researcher designed a questionnaire and created a link via the Internet. The validity of the link is a period of two months. The researcher also visited the Director of Organisational Excellence and the Aviation Security Consultant at the Civil Aviation Authority in KSA, who in turn distributed the link designated for the questionnaire to their fellow employees in their organisation via email.

On the same day, the researcher also visited the Director of Human Resources as well as the General Director of Air Operations at Alpha Star Aviation Services Company, who in turn published the questionnaire link to their fellow employees in their company via email. Two months after uploading the questionnaire, (355) responses

were conveniently collected representing employees at the Civil Aviation Authority in Saudi Arabia and Alpha Star Aviation Services Company.

The study also received feedback from 50 separate responders via a pilot study to assess the understandability, internal consistency, convergent validity, and divergent validity of all questionnaire elements before actual data collection took place. The pilot study results indicate that individual attributes to all variables employed in the study factored meaningfully into the measurements and variations of variables with positive eigenvalues and significant values for the average variance explained.

Generalisability will be limited when sampling methods fail to produce a representative sample of the intended population. Arguably, sampling errors, such as selection and sample bias, always occur. Here, the results are limited to the case organisations within the case country. The results of this research may or may not extend to other contexts, but future research will need to confirm the results in those different contexts.

3.10 Population and Sample Size:

According to Pandey and Pandey (2021), Shenk and Westerhaus (1991), and Barreiro and Albandoz (2001), the sample size of this study is determined based on Cochran's (1977) sample size determination framework. In this regard, the sample size of the study is determined to be 355 KSA aviation industry employees given the maximum population variability assumption for the bounded population of Saudi Aviation employees of 6000, population proportion of 50%, traditional significance level of 5%, and error margin of 5%.:

$$n= [z^2*p*(1-p)*e^{-2}] * [1+ \{(z^2*p*(1-p)*e^{-2}) -1\} / N)\}]^{-1}$$

Where n is the calculated sample size of 355, z is 1.96, p is the population proportion of 0.5, e is the error margin of 5%, and N is the finite population of 6000 aviation employees (GACA, 2023). Such sample size accurately represents the KSA aviation industry given the population size of more than 6000 employees according to the annual report for GACA in 2023 (GACA, 2023) and the Pitchbook website for Alpha Star Aviation Services Company (Pitchbook, 2025). The purposive sampling strategy, and Cochran's sample size determination framework. In particular, the sample size determined in this study is as large as possible given the assumed maximum population variability of 50% as per the authoritative statistics literature (Hair et al., 2022). Moreover, the sample for this study is as representative as possible of Saudi private aviation since it proportionately represents both government and private

sectors operating in Saudi aviation. All 355 employee responses are thus collected proportionately at the Civil Aviation Authority in Saudi Arabia (322 employees) and Alpha Star Aviation Services Company (33 employees). Toward this end, The General Authority of Civil Aviation (GACA) and Alpha Star are both key players in the Saudi aviation sector, each contributing to the growth and development of aviation in the Kingdom, particularly as part of Saudi Arabia's broader economic diversification goals under Vision 2030 (Ekore et al., 2020). GACA and Alpha Star thus play complementary roles in the Saudi aviation ecosystem. General Authority of Civil Aviation (GACA) was established in 1948 and has undergone several transformations to gain financial and administrative independence. GACA is the supreme regulator. It's the entity that sets the rules, ensures safety, steers the strategic direction of civil aviation across the Kingdom of Saudi Arabia and provides regulatory oversight and infrastructure development. It oversees the operation and development of all Saudi airports – a network of both international and domestic hubs vital for connectivity. More recently, GACA has shifted its focus from operational roles to purely regulatory and legislative functions, transferring airport operations to private entities like Matarat Holding Company. This strategic move aligns with Saudi Vision 2030, aiming to privatise and enhance efficiency, positioning the Kingdom as a leader in global aviation, improving customer experience, and promoting sustainability, while Alpha Star was founded in Riyadh in 2010 to provide private charter to enhance the luxury and private sector of aviation, catering to the growing demand for premium services. Beyond luxury charter flights, Alpha Star extends its expertise to a critical and compassionate service: air ambulance operations. Equipped with highly trained medical teams and state-of-the-art medical systems, they provide critical care transport and medical evacuations worldwide, upholding the highest standards of safety and quality. Alpha Star is also deeply involved in aircraft management, offering comprehensive solutions to aircraft owners, from flight operations and logistical support to maintenance and engineering services. Their commitment to excellence is evident in their certifications (including GACA's Part 125, Part 135, and Part 145 licenses, and ISO 9001), and their focus on personalised services and continuous improvement. Together, they contribute to the broader vision of advancing Saudi Arabia's aviation industry, improving both commercial and private aviation services (Baghdadi & Kishk, 2017). GACA and Alpha Star were chosen for this study since GACA defines the regulatory infrastructure of civil

aviation in the kingdom and Alpha Star represents one of the main private aviation service providers complying with GACA while willing to conveniently share data with the researcher. Clearly, the results of this study may not be generalised to other companies in other countries, it will be the responsibility of those organisations to conduct their own research to confirm the external validity of the results found here.

3.11 Data Analysis:

Guided by the positive research questions, this study adheres to the traditional scientific paradigm and maintains all relevant ontological, epistemological, and axiological assumptions with respect to objectivism, positivism, empiricism, and in particular post-positivism. This study also applies Principal Component Analysis (PCA) on a pilot study of 50 independent respondents through the method of Kaiser's (1985) varimax based on the orthogonal or uncorrelated approach to factor rotation. The objective is to assess the eigenvalues of the individual attributes of variable measurements in the data collection instrument.

To answer its first research question, the study analyses the significance of the difference between mean respondents for (1) transformational leadership (TSL) and transactional leadership (TCL) and for (2) transformational leadership (TSL) and passive avoidant leadership (PAL). To answer the second, third, and fourth research questions, the study applies a typical protocol to analysing relationships with intervening mechanisms where [1] the study dependent variable of organisational innovation is regressed on the main independent variable of transformational leadership, [2] the study dependent variable of organisational innovation is regressed on both intervening variables of employee creativity and organisational culture, and [3] both intervening variables are regressed individually on the study main independent variable of transformational leadership.

3.12 Ethical Considerations:

Research ethics or ethical consideration is considered an important part of the research. In this study, the data from the survey have been analysed impartially, and the researcher has adhered to all of the necessary protocols to ensure that the respondents' responses will remain anonymous. Within the scope of this study, contemporary ethical concerns are investigated. In order to serve the needs of the primary investigator, the researcher made certain that the confidentiality of the survey participants was maintained at all times. This was done simultaneously as the primary data for the research was being collected. A consent form was developed to guarantee

that the respondents' names and the information they provided would not be divulged to a third party clandestinely or without their knowledge. It was suggested that the participants fill out this survey in its entirety and all survey data will be kept saved in a personal computer of the researcher and no one will get access except the research supervisor (Connelly, 2014).

3.13 Statement of Originality:

The findings of this research have offered theoretical and practical implications in the civil aviation sector about the role of leadership style in driving innovation. According to the most up-to-date information available to the researcher, there is a gap in the body of literature about the relationship between organisational leadership and organisational innovation in the context of the Saudi aviation industry. During this investigation, a primary data collection instrument is formulated based on the authoritative literature with the objective of collecting the perceptions of Saudi aviation employees with respect to leadership styles, organisational innovation, and the mediating influences of organisational culture and employee creativity. Toward this end and according to the researcher's best knowledge, no prior research has ever explained the organisational innovation of Saudi aviation in terms of organisational leadership as channelled through the mediating influences of the organisational culture of Saudi aviation and the creativity of Saudi aviation employees.

3.14 Research Limitations:

This research is limited by the quantitative research design (Coughlan et al., 2007; Johnson and Christensen, 2004; Creswell, 1998), the theoretical framework of Setiawan et al. (2021), and the chosen variable measurements for the leadership styles, organisational innovation, organisational culture, and employee creativity.

3.15 Summary:

The research design, which was developed using the research onion methodology given by Saunders and summarised the methodology for this study with rationale for the choice of each layer as shown below in Table 4:

Table 4: Summary of Research Design.

Layer	Layer choice	The rationale for the choice
Research Philosophy	Post-positivism Philosophy	It is a vigorous procedure to evaluate the hypothesis and empirical results. To test the hypothesis, the idea of using the post-positivism approach is useful for the study. It also help the researcher to measure the magnitude of the relationships involved in the study and test such magnitude for statistical significance at traditional levels (Melnikovas, 2018).
Research Approach	Deductive Approach	It allows the researcher to examine well-known theories that underline when examining the aspects involved in the role leadership styles required within the aviation industry. Moreover, it is very important if there are any number of possible explanations regarding research phenomena (O'Reilly, 2009). The deductive approach follows the positivism philosophy, leading to quantitative research using a survey questionnaire. Therefore; it encourages to use of quantitative research methods (Aneta, and Jerzy, 2013).
Research method	Quantitative method	It stresses "objective measurement and "numerical analysis", whilst also collecting data from a large sample (Park, and Park, 2016). It also has excellent flexibility to use many study designs to explore more information by integrating quantitative and qualitative data and analysis techniques.
Time horizon	1-2 months, cross-sectional design	All the data needed for this study is collected from Saudi Aviation organisation over a period of two months.
Data Collections	Likert-type attitudinal scale	Data will be collected from 355 respondents in different management levels and employees in the organisation concerning their perceptions of leadership styles and innovation in the organisation.
Data Analysis	Regression specifications using SPSS and MS Excel. The analysis is validated with PLS specification using Smart PLS-SEM	Data is analysed and results are reported based on estimating parsimonious linear models where the relationship between the study variables and the extent to which mediating influences are significant are documented and tested for statistical significance.
Sample Size	Cochran's (1977) sample size determination framework	Via convenient sampling, a total of 355 aviation employees responded to the questionnaire collected from the Civil Aviation Authority in Saudi Arabia and Alpha Star Aviation Services Company.

Chapter 4: Research Results

4.1 Introduction of the Chapter:

The results of the study are presented in this chapter. A pilot study based on Cronbach's Alpha reliability is discussed and presented. In addition, this chapter offers respondent's profile, data screening for univariate and multivariate outliers, measurement model assessment and structural model evaluation undertaken via SPSS. Afterwards, the discussion section proclaimed and proved the findings of the study in light of past studies and relevant literature. Furthermore, it also provides a considerable rationale for supportive and contrary results as backed by past literature and studies to enrich the understanding of hypothesis testing. This chapter mainly presents the descriptive statistics and the empirical data analysis. The descriptive statistics section presents descriptions of both the study respondents comprising the study sample and the study variables of transformational leadership, organisational innovation, employee creativity, and organisational culture. The empirical data analysis section presents all details of the factor analysis and answers the research questions of the study based on estimating linear models and testing respective parameter estimates for both direction and magnitude. Toward this end, the empirical results reported in this study show that perceptions of the employees in the aviation industry in Saudi Arabia concerning the underlying leadership style of their organisation are consistent with transformational leadership. This is as opposed to other styles of organisational leadership including the transactional style and the passive-avoidant style. It's critical here to emphasise that this study doesn't advance hypotheses with respect to any leadership style other than transformational leadership. only transformational leadership is observed in Saudi aviation and therefore, all relationships empirically examined in this study focused chiefly on transformational leadership and its attributes. The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation is mediated by the levels of employee creativity and organisational culture. Applying a standard protocol to empirical analysis with intervening mechanisms, the study reports that such mediation, though both well-pronounced and statistically significant at all traditional levels, is short of the full mediation criterion. This suggests that the

mediating influences of employee creativity and organisational culture may be necessary but not sufficient conditions when channelling through the impact of transformational leadership on organisational leadership. Given transformational leadership characteristics of idealised influence (attribute), idealised influence (behaviour), inspirational motivation, intellectual stimulation, and idealised consideration, this study reports that the characteristic of inspirational motivation tends to drive organisational innovation the most in the KSA aviation industry, and this is followed by the characteristic of behavioural idealised influence. Throughout, the study employs internally consistent and validated data collection instruments as evidenced by typical criteria and thresholds in the empirical literature. Furthermore, the empirical analysis performed and reported in the study employed linear models that allowed for meaningfully measuring parameter estimates and testing them for statistical significance. The study also performs and reports robustness check analysis using partial least squares (hereafter, PLS) techniques. In this respect, the study reports a composite components analysis where the full measurement model is reduced to a reduced model where construct reliability and validity are satisfied as per the average variance explained criterion. Such a reduced measurement model is specified reflectively where the direction of the specific indirect effects starts from the explanatory variable of transformational leadership through the mediating mechanisms of employee creativity and organisational culture and into the study variable of organisational innovation. Besides the reduced reflective measurement model, structural, and bootstrapping models are also estimated to measure and test path coefficients, total indirect effects, and specific indirect effects. The outcomes of the PLS robustness check analysis are consistent with the covariance-based empirical results and provide intuition into the structural features of the study data. In particular, the structural results show that the attribute of idealised consideration tends to drive transformational leadership the most, and this is followed by intellectual stimulation and then inspirational motivation. By the same token, whereas the attribute of organisational experimentation tends to drive organisational innovation the most, the attribute of seeking new ideas drives employee creativity the most, and the attribute of information sharing drives organisational culture the most.

4.2 Descriptive Statistics:

This section presents descriptive statistics in two sections:

1. Descriptive statistics of study respondents.
2. Descriptive statistics of the study variables of transformational leadership, transactional leadership, passive-avoidant leadership, organisational innovation, employee creativity, and organisational culture. Furthermore, the first section is divided into two parts.

The first section presents responses related to demographic variables including gender, age, and educational level. In the second part of this section, descriptive statistics regarding these variables are presented comprising of mean, median, mode, standard deviation, variance, skewness, and standard error of skewness, kurtosis and standard error of kurtosis. Considering the first part of this section, it has been observed that out of (355) participants, the majority of the participants were male (n = 308, 87.0%). On the other hand, (47) of the participants were female (13.0%).

Table 5**:** Gender

Gender					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Female	47	13	13	13
	Male	308	87	87	87
	Total	355	100.0	100.0	

The age category has been divided into three different categories:

1. From age (18-29) years. 2. From age (30-45) years. 3. From age (46) years and above.

With respect to age category, (304) participants of the (355) participants were (30-45) years old (85.6%). In addition, (38) participants out of (355) participants were (46) years and above years old (10.7%). On the other hand, (13) participants belonged to the (18-29) years category, respectively.

Table 6**:** Age

AGE					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	18-29 years	13	3.6	3.6	3.6
	30-45 years	304	85.6	85.6	85.6
	46 years and above	38	10.7	10.7	10.7
	Total	355	100.0	100.0	

The educational level variable is divided into two different categories:

1. Undergraduate (Diploma and Bachelor).
2. Postgraduate (Master and Doctor).

As shown below in (Table 7) presents responses regarding the educational level of participants in this study. It has been observed that the majority of the participants had undergraduate (n= 265, 74.6%). In addition, (90) participants out of (355) participants had postgraduate (25.4%).

Table 7**:** Level of education

EDUCATION LEVEL					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Undergraduate	265	74.6	74.6	74.6
	Postgraduate	90	25.4	25.4	100.0
	Total	355	100.0	100.0	

- **Descriptive Statistics of the Study Variables:**

Table 8: Descriptive Statistics

Statistic	TSL (Transformational)	TCL (Transactional)	PAL (Passive-Avoidant)	OI (Innovation)	EC (Creativity)	OC (Culture)
Mean	3.566667	3.451977	3.448588	3.575706	3.656073	3.555085
Standard Error	0.045709	0.03839	0.030797	0.038778	0.033329	0.042237
Median	3.6	3.4	3.4	3.6	3.75	3.5
Mode	3.2	3.2	3.4	3.2	3.75	3.5
Standard Deviation	0.860013	0.722295	0.57945	0.729607	0.62709	0.794681
Sample Variance	0.739622	0.52171	0.335763	0.532326	0.393242	0.631518
Kurtosis	-0.10664	0.188347	0.021401	-0.30324	-0.00371	0.463298
Skewness	-0.30929	-0.20829	0.393302	-0.00977	-0.13843	-0.37552
Range	4	4	3	3.6	3.5	4
Minimum	1	1	2	1.4	1.5	1
Maximum	5	5	5	5	5	5
Sum	1262.6	1222	1220.8	1265.8	1294.25	1258.5
Count	354	354	354	354	354	354
Largest(1)	5	5	5	5	5	5
Smallest(1)	1	1	2	1.4	1.5	1
Confidence Level(95.0%)	0.089897	0.075501	0.06057	0.076265	0.065549	0.083067

4.3 Preliminary Data Analysis:

4.3.1 Missing Values and Outliers:

Data screening is the procedure, which assures the researcher that the dataset is both complete and clean with no missing entries or extreme outliers before conducting additional statistical analyses (Das and Imon, 2016). To ensure data completeness, data must be screened for usability, reliability and validity of the data (Moore et al., 2021). In this study, data is scrutinised on an entry-by-entry basis. The entire data screening process is automated through data screening. This process assured the researcher that all data collected primarily is complete and ready for further descriptive and empirical analyses (Ruggles et al., 2020). The dataset for this study is established to be clean where extreme outliers are completely absent (Mishra et al., 2019). Such absence of extreme outliers in this study is documented by assuring the correctness and completeness of all data entries, and statistically failing to reject the normality assumption of the probability distributions underlying all variables measured with collected data (Mishra et al., 2019).

4.4 Empirical Data Analysis:

4.4.1 Summary of Study Results:

The objective of this study is to empirically examine the impact of organisational leadership on organisational innovation in the aviation industry in Saudi Arabia. The study adheres to the traditional scientific paradigm and estimates parsimonious specifications instructed by the theoretical framework advanced in (Setiawan et al., 2021). The results of the study show that perceptions of the employees in the aviation industry in Saudi Arabia with respect to the underlying leadership style of their organisation are consistent with transformational leadership. This is as opposed to other styles of organisational leadership including the transactional style and the passive-avoidant style. The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation is mediated by the levels of employee creativity and organisational culture. Applying a standard protocol to empirical analysis with intervening mechanisms, the study reports that such mediation, though both well-pronounced and statistically significant at all traditional levels, is short of the full mediation criterion. This suggests that the mediating influences of employee creativity and organisational culture may be necessary but not sufficient conditions when channelling the impact of transformational leadership on organisational leadership. Throughout, the study

employs internally consistent and validated data collection instruments as evidenced by typical criteria and thresholds in the empirical literature.

4.4.2 Research Paradigm:

Guided by the positive research questions, this study adheres to the traditional scientific paradigm and maintains all relevant ontological, epistemological, and axiological assumptions with respect to objectivism, positivism, and empiricism (Cresswell, 1994; Saunders et. al., 2007). In this concern, ontologically, this study holds that the variables of transformational leadership, transactional leadership, passive-avoidant leadership, organisational innovation, employee creativity, and organisational culture are readily retrievable and can be objectively observed and measured by the researcher. Epistemologically, the study maintains that the processes via which organisational leadership may impact organisational innovation can be both objectively quantified and tested for purposes of producing marginal wisdom and generating decision-useful knowledge. Axiologically, the study rests on the presumption that understanding and reporting on the relationships between organisational leadership and organisational innovation will inform the theories of management, leadership and organisational behaviour.

4.4.3 Factor analysis:

Employing a pilot study of 50 respondents, this study applies Principal Component Analysis **(**PCA**)** through the method of Kaiser's (1985) varimax based on the orthogonal or uncorrelated approach to factor rotation. The objective is to assess the eigenvalues of the individual attributes of variable measurements in the data collection instrument. As opposed to the correlated or oblique approach to factor rotation, orthogonal factor rotation is better suited for the objectives of this study due to the tractability and convenience involved when analysing and reporting (PCA) solution outcomes (see, e.g., Pituch and Stevens, 2016).

In view of the data collection instrument employed in the study, the following factor analysis applies the protocol:

1. Assessing the adequacy of the study sample.
2. Testing the orthogonality of variables.
3. Defining factors.
4. Determining internal consistency (Reliability analysis).
5. Examining validity.

❖ Assessing sample adequacy:

This study employs and reports Kaiser-Meyer-Olkin (KMO) measurement of sample adequacy (table 9) for all variables.

KMO takes values in [0, 1], and is measured as:

[SUMi≠j(Corr(I,j))2] / [SUMi≠j(Corr(I,j))2 + SUMi≠j(Cov(I,j))2]. Since KMO for all variables passed the threshold of 0.5, this study reports that all variables are adequate for factor analysis.

Table 9: KMO and Bartlett's Test (Transformational Leadership)

KMO and Bartlett's Test (Transformational Leadership)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
Bartlett's Test of Sphericity	Approx. Chi-Square	125.959
	df	10
	Sig.	<.001

Communalities

	Initial	Extraction
TSLA	1.000	.668
TSLB	1.000	.521
TSLC	1.000	.669
TSLD	1.000	.755
TSLE	1.000	.733

Extraction Method: Principal Component Analysis.

Table 10: KMO and Bartlett's Test (Transactional Leadership)

KMO and Bartlett's Test (Transactional Leadership)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.781
Bartlett's Test of Sphericity	Approx. Chi-Square	110.103
	df	10
	Sig.	<.001

Communalities

	Initial	Extraction
TCLA	1.000	.760
TCLB	1.000	.566
TCLC	1.000	.645
TCLD	1.000	.640
TCLE	1.000	.585

Extraction Method: Principal Component Analysis.

Table 11: KMO and Bartlett's Test (Passive-Avoidant Leadership)

KMO and Bartlett's Test (Passive-Avoidant Leadership)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.703
Bartlett's Test of Sphericity	Approx. Chi-Square	45.465
	df	10
	Sig.	<.001

Communalities

	Initial	Extraction
PALA	1.000	.520
PALB	1.000	.581
PALC	1.000	.640
PALD	1.000	.717
PALE	1.000	.887

Extraction Method: Principal Component Analysis.

Table 12: KMO and Bartlett's Test (Organisational Innovation)

KMO and Bartlett's Test (Organisational Innovation)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.755
Bartlett's Test of Sphericity	Approx. Chi-Square	47.008
	df	10
	Sig.	<.001

Communalities

	Initial	Extraction
OISC	1.000	.411
OICA	1.000	.438
OICB	1.000	.416
OICOA	1.000	.549
OICOB	1.000	.614

Extraction Method: Principal Component Analysis.

Table 13: KMO and Bartlett's Test (Employee Creativity)

KMO and Bartlett's Test (Employee Creativity)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.598
Bartlett's Test of Sphericity	Approx. Chi-Square	17.267
	df	6
	Sig.	.008

Communalities

	Initial	Extraction
EC1	1.000	.918
EC2	1.000	.584
EC3	1.000	.658
EC4	1.000	.597

Extraction Method: Principal Component Analysis.

Table 14: KMO and Bartlett's Test (Organisational Culture)

KMO and Bartlett's Test (Organisational Culture)		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.591
Bartlett's Test of Sphericity	Approx. Chi-Square	16.674
	df	6
	Sig.	.011

Communalities

	Initial	Extraction
OC1	1.000	.216
OC2	1.000	.391
OC3	1.000	.545
OC4	1.000	.559

Extraction Method: Principal Component Analysis.

- ❖ Testing orthogonality:

This study applies Bartlett's test of sphericity to assess whether study features are orthogonal or represent an identity correlation matrix, which is not meaningfully factorable. Bartlett's chi-square value is given by:

[- ((n-1) - (2*V-5)/6)* ln(det(Corr))], where n is the sample size, V is the number of features, and det(Corr) is the determinant of the correlation matrix. Since all variables were strongly significant at all traditional levels (i.e., the 10%, 5%, and 1% levels) as per Bartlett's test, this study reports that individual variable attributes are not orthogonal and tend to contribute meaningfully to the total variance of variable measurement.

- ❖ Reliability Analysis

This study determines the levels of internal consistency of all variables in accordance with Cronbach's alpha measurement of the reliability of the data collection instrument (see, e.g., Hair et al., 2006). As shown in (Table 15) below, the study reports that all variables are measured with proper reliability and internal consistency in terms of exceeding the acceptable Cronbach's alpha threshold of 0.5.

Table 15: Reliability, internal consistency, and Cronbach's alpha

Scale: TSL Reliability Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.831	5

Scale: TCL Reliability Case Processing Summary Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.725	5

Scale: PAL Reliability Case Processing Summary Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.612	5

Scale: EC Reliability Case Processing Summary Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.587	4

Scale: OC Reliability Case Processing Summary Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.724	4

Scale: OI Reliability Case Processing Summary Case Processing Summary

		N	%
Cases	Valid	354	99.7
	Excluded[a]	1	.3
	Total	355	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.715	5

This study establishes convergent validity of the data collection instrument via measuring the average variance extracted (AVE) and analysing eigenvalues. As per the table below, the study shows that the average variance extracted is non-zero and positive for all variables and that the eigenvalues are non-zero and positive for all component attributes of variables. This indicates that component attributes of all variables measured in the study tend to meaningfully contribute toward the measurement of respective variables.

Table 16: Convergent validity analysis

Average Variance Explained (TSL)

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.346	66.911	66.911	3.346	66.911	66.911
2	.635	12.709	79.620			
3	.530	10.607	90.227			
4	.269	5.382	95.609			
5	.220	4.391	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
TSLA	.817
TSLB	.722
TSLC	.818
TSLD	.869
TSLE	.856

Extraction Method: Principal Component Analysis.[a]

a. 1 components extracted.

Average Variance Explained (TCL)

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.197	63.934	63.934	3.197	63.934	63.934
2	.619	12.387	76.320			
3	.600	12.009	88.330			
4	.371	7.425	95.755			
5	.212	4.245	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
TCLA	.872
TCLB	.752
TCLC	.803
TCLD	.800
TCLE	.765

Extraction Method: Principal Component Analysis.[a]

a. 1 components extracted.

Average Variance Explained (PAL)

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.315	46.309	46.309	2.315	46.309	46.309
2	1.030	20.591	66.899	1.030	20.591	66.899
3	.666	13.319	80.219			
4	.582	11.636	91.855			
5	.407	8.145	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
PALA	.661	-.288
PALB	.683	-.339
PALC	.766	-.233
PALD	.795	.292
PALE	.442	.832

Extraction Method: Principal Component Analysis.[a]

a. 2 components extracted.

Average Variance Explained (EC)

Component	Initial Eigenvalues	Extraction Sums of Squared Loadings

	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.696	42.408	42.408	1.696	42.408	42.408
2	1.061	26.524	68.931	1.061	26.524	68.931
3	.664	16.593	85.524			
4	.579	14.476	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
EC1	-.134	.949
EC2	.728	.232
EC3	.771	-.254
EC4	.744	.206

Extraction Method: Principal Component Analysis.[a]

a. 2 components extracted.

Average Variance Explained (OC)

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.712	42.805	42.805	1.712	42.805	42.805
2	.950	23.746	66.551			
3	.799	19.968	86.519			
4	.539	13.481	100.000			

Extraction Method: Principal Component Analysis.

Component Matrixa

	Component
	1
OC1	.465
OC2	.625
OC3	.738
OC4	.748

Extraction Method: Principal Component Analysis.[a]

a. 1 components extracted.

The study also establishes divergent validity in the table below by showing that all bivariate correlations between the components of variables are significant at

traditional significant levels (i.e., the significance reported for the relationships between the attributes of all variables is less than 1%).

Table 17: Divergent validity and correlation matrices

Correlations (TSL)**:**

		TSLA	TSLB	TSLC	TSLD	TSLE
TSLA	Pearson Correlation	1	.489**	.485**	.502**	.441**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	354	354	354	354	354
TSLB	Pearson Correlation	.489**	1	.474**	.569**	.535**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	354	354	354	354	354
TSLC	Pearson Correlation	.485**	.474**	1	.453**	.467**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	354	354	354	354	354
TSLD	Pearson Correlation	.502**	.569**	.453**	1	.552**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	354	354	354	354	354
TSLE	Pearson Correlation	.441**	.535**	.467**	.552**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	354	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

Correlations **(TCL):**

		TCLA	TCLB	TCLC	TCLD	TCLE
TCLA	Pearson Correlation	1	.326**	.330**	.271**	.216**
	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	354	354	354	354	354
TCLB	Pearson Correlation	.326**	1	.432**	.430**	.267**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	354	354	354	354	354
TCLC	Pearson Correlation	.330**	.432**	1	.462**	.331**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001

	N	354	354	354	354	354
TCLD	Pearson Correlation	.271**	.430**	.462**	1	.419**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	354	354	354	354	354
TCLE	Pearson Correlation	.216**	.267**	.331**	.419**	1
	Sig. (1-tailed)	<.001	<.001	<.001	<.001	
	N	354	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

Correlations

		PALA	PALB	PALC	PALD	PALE
PALA	Pearson Correlation	1	.292**	.293**	.098*	.122*
	Sig. (1-tailed)		<.001	<.001	.033	.011
	N	354	354	354	354	354
PALB	Pearson Correlation	.292**	1	.403**	.259**	.236**
	Sig. (1-tailed)	<.001		<.001	<.001	<.001
	N	354	354	354	354	354
PALC	Pearson Correlation	.293**	.403**	1	.244**	.196**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	354	354	354	354	354
PALD	Pearson Correlation	.098*	.259**	.244**	1	.278**
	Sig. (1-tailed)	.033	<.001	<.001		<.001
	N	354	354	354	354	354
PALE	Pearson Correlation	.122*	.236**	.196**	.278**	1
	Sig. (1-tailed)	.011	<.001	<.001	<.001	
	N	354	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Correlations (EC)

	EC1	EC2	EC3	EC4

EC1	Pearson Correlation	1	.226**	.197**	.045
	Sig. (1-tailed)		<.001	<.001	.201
	N	354	354	354	354
EC2	Pearson Correlation	.226**	1	.242**	.131**
	Sig. (1-tailed)	<.001		<.001	.007
	N	354	354	354	354
EC3	Pearson Correlation	.197**	.242**	1	.353**
	Sig. (1-tailed)	<.001	<.001		<.001
	N	354	354	354	354
EC4	Pearson Correlation	.045	.131**	.353**	1
	Sig. (1-tailed)	.201	.007	<.001	
	N	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

Correlations (OC)

		OC1	OC2	OC3	OC4
OC1	Pearson Correlation	1	.493**	.359**	.306**
	Sig. (1-tailed)		<.001	<.001	<.001
	N	354	354	354	354
OC2	Pearson Correlation	.493**	1	.389**	.435**
	Sig. (1-tailed)	<.001		<.001	<.001
	N	354	354	354	354
OC3	Pearson Correlation	.359**	.389**	1	.394**
	Sig. (1-tailed)	<.001	<.001		<.001
	N	354	354	354	354
OC4	Pearson Correlation	.306**	.435**	.394**	1
	Sig. (1-tailed)	<.001	<.001	<.001	
	N	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

Correlations (OI)

		OISC	OICA	OICB	OICOA	OICOB
OISC	Pearson Correlation	1	.284**	.330**	.312**	.256**

	Sig. (1-tailed)		<.001	<.001	<.001	<.001
	N	354	354	354	354	354
OICA	Pearson Correlation	.284**	1	.285**	.198**	.135**
	Sig. (1-tailed)	<.001		<.001	<.001	.006
	N	354	354	354	354	354
OICB	Pearson Correlation	.330**	.285**	1	.455**	.530**
	Sig. (1-tailed)	<.001	<.001		<.001	<.001
	N	354	354	354	354	354
OICOA	Pearson Correlation	.312**	.198**	.455**	1	.525**
	Sig. (1-tailed)	<.001	<.001	<.001		<.001
	N	354	354	354	354	354
OICOB	Pearson Correlation	.256**	.135**	.530**	.525**	1
	Sig. (1-tailed)	<.001	.006	<.001	<.001	
	N	354	354	354	354	354

**. Correlation is significant at the 0.01 level (1-tailed).

4.5 Empirical Study and Answering Research Questions:

This study answers the first research question by showing that the leadership style observed in the aviation industry of KSA is consistent with that of transformational leadership. The study reports this result based on analysing the significance of the difference between mean respondents for:

(1) transformational leadership (TSL) and transactional leadership (TCL) as shown in the table below, and (2) transformational leadership (TSL) and passive avoidant leadership (PAL) as shown in Table 19. In this respect, the study shows that the differences between TSL and TCL and between TSL and PAL are both positive and strongly significant at all traditional levels of the Type I error.

Table 18: Difference between mean respondents between TSL and TCL

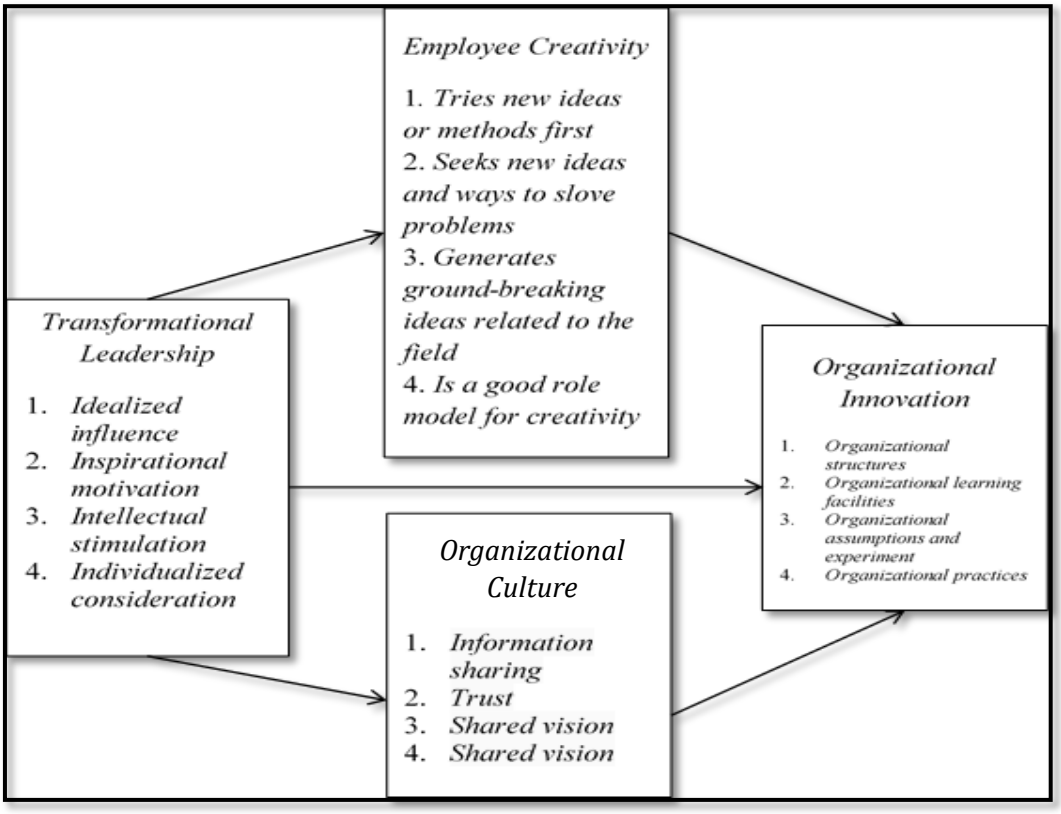
t-Test: Paired Two Sample for Means		
	TSL	*TCL*
Mean	3.56666667	3.451977
Variance	0.73962229	0.52171
Observations	354	354
Pearson Correlation	0.36598966	
Hypothesized Mean Difference	0	
df	353	
t Stat	2.40261817	
P(T<=t) one-tail	0.00839693	
t Critical one-tail	1.64918167	
P(T<=t) two-tail	0.01679386	
t Critical two-tail	1.96670701	

Table 19: Difference between mean respondents between TSL and PAL

t-Test: Paired Two Sample for Means		
	TSL	*PAL*
Mean	3.566666667	3.448588
Variance	0.739622285	0.335763
Observations	354	354
Pearson Correlation	0.29476821	
Hypothesized Mean Difference	0	
df	353	
t Stat	2.512943787	
P(T<=t) one-tail	0.006208891	
t Critical one-tail	1.649181673	
P(T<=t) two-tail	0.012417782	
t Critical two-tail	1.966707009	

To answer Research Question 2, Rersesch Question 3, and Research Question 4, the study adopts the theoretical framework of Setiawan et al. (2021) in figure 3 below to analyse the impact of organisational leadership on organisational innovation. As highlighted in the figure below, the theoretical framework of Setiawan et al. (2021) explains organisational innovation as a function of organisational leadership via the intervening influences of employee creativity and organisational culture (i.e., internal social capital). In this respect, this study employs the terms internal social capital and organisational culture interchangeably as will be explained in greater detail in the following subsection. The study also recognises the typo made by Setiawan et al. (2021) where shared vision is mentioned twice under internal social capital. This, however, is of minor issue to this study as organisational culture is measured in this study according to Sashkin and Rosenbach (2013).

Figure 3: Theoretical framework of (adapted from Setiawan et al., 2021, p.10)



In view of the discussion above, this study commences with empirically uncovering the leadership style observed in Saudi aviation. The study reports that the leadership style observed in Saudi Aviation is consistent with that of Transformational Leadership. This links the conceptual framework (figure 1) of this study to the theoretical framework of Setiawan et al. (2021) (figure 3) where subsequent empirical relationships examined in this study are based on transformational leadership and its

attributes. This linkage led this study to collect data with respect to the attributes of transformational leadership, employee creativity, organisational culture, and organisational innovation (figure 4).

Given the theoretical framework above, the study applies a typical protocol to analysing relationships with intervening mechanisms where [1] the study-dependent variable of organisational innovation is regressed on the main independent variable of transformational leadership, [2] the study-dependent variable of organisational innovation is regressed on both intervening variables of employee creativity and organisational culture, and [3] both intervening variables are regressed individually on the study main independent variable of transformational leadership.

In particular terms, to answer Research Question 2, the study regresses transformational leadership on organisational innovation via a model specification instructed by the functional form:

$OI = f(TSL)$

Such that:

$OI = b0 + b1*TSL + e$

Where TSL is transformational leadership measured in accordance with MLQ, OI is organisational innovation measured in accordance with the OSLO manual, b0 is an intercept parameter estimate, b1 is a slope parameter estimate, and e is a well-behaved Gauss-Markov error term with zero mean and constant variance.

As per the table below, the study reports that the absolute impact of TSL on OI is strongly significant with statistically significant slope parameter estimates and explanatory power.

Table 20: Regressing OI on TSL

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.59555265				
R Square	0.354682959				
Adjusted R Square	0.352849671				
Standard Error	0.586936911				
Observations	354				
ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	66.64885547	66.6488	193.4683	2.35E-35
Residual	352	121.262218	0.34449		
Total	353	187.9110734			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	1.773657512	0.133259976	13.3097	5.07E-33	1.511572
TSL	0.5052473	0.036324452	13.9092	2.35E-35	0.433807

To answer Research Question 3, the study regresses employee creativity on transformational leadership and organisational innovation on employee creativity via the model specifications instructed by the functional forms:

EC = *f* (TSL)

OI = *f* (EC)

Such that:

EC = b0 + b1*TSL + e

OI = b0 + b1*EC + e

Where TSL is transformational leadership measured in accordance with MLQ, OI is organisational innovation measured in accordance with the OSLO manual, EC is employee creativity measured in accordance with Farmer et al. (2003), b0 is an intercept parameter estimate, b1 is a slope parameter estimate, and e is a well-behaved Gauss-Markov error term with zero mean and constant variance.

As per (Tables 21 and 22) below, the study reports that the absolute impacts of TSL on EC and of EC on OI are both strongly significant with statistically significant slope parameter estimates and explanatory power. This suggests that EC significantly

mediates the relationship between TSL and OI at all traditional levels of statistical significance.

Table 21: Regressing EC on TSL

SUMMARY OUTPUT							
Regression Statistics							
Multiple R	0.208755						
R Square	0.043579						
Adjusted R Square	0.040861						
Standard Error	0.614145						
Observations	354						
ANOVA							
	df	*SS*	*MS*	*F*	*Significance F*		
Regression	1	6.04933	6.04933	16.03859	7.57E-05		
Residual	352	132.765	0.37717				
Total	353	138.814					
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*
Intercept	3.113168	0.13943	22.3266	2.06E-69	2.838933	3.38740	2.83893
TSL	0.152216	0.03800	4.00482	7.57E-05	0.077464	0.22696	0.07746

Table 22: Regressing OI on EC

Regression Statistics					
Multiple R	0.298389				
R Square	0.089036				
Adjusted R Square	0.086448				
Standard Error	0.697357				
Observations	354				
ANOVA					
	df	SS	MS	F	Significance F
Regression	1	16.7309	16.7309	34.40398	1.03E-08
Residual	352	171.180	0.48630		
Total	353	187.911			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2.306427	0.21954	10.5052	1.23E-22	1.87463	2.73822
EC	0.34717	0.05918	5.86549	1.03E-08	0.23076	0.46357

To answer Research Question 4, the study regresses organisational culture on transformational leadership and organisational innovation on organisational culture via the model specifications instructed by the functional forms:

OC = *f* (TSL)

OI = *f* (OC)

Such that

OC = b0 + b1*TSL + e

OI = b0 + b1*OC + e

Where TSL is transformational leadership measured in accordance with MLQ, OI is organisational innovation measured in accordance with the OSLO manual, OC is organisational culture measured in accordance with Sashkin and Rosenbach (2013) , b0 is an intercept parameter estimate, b1 is a slope parameter estimate, and e is a well-behaved Gauss-Markov error term with zero mean and constant variance.

As per tables (23 and 24) below, the study reports that the absolute impacts of TSL on OC and of OC on OI are both strongly significant with statistically significant slope parameter estimates and explanatory power. This suggests that OC significantly mediates the relationship between TSL and OI at all traditional levels of statistical significance.

Table 23: Regressing OC on TSL

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.336991
R Square	0.113563
Adjusted R Square	0.111044
Standard Error	0.749261
Observations	354

ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	25.3160	25.3160	45.09523	7.55E-11	
Residual	352	197.609	0.56139			
Total	353	222.925				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.444457	0.17011	14.3694	3.63E-37	2.109889	2.77902
TSL	0.311391	0.04637	6.71529	7.55E-11	0.220193	0.40258

Table 24: Regressing OI on OC

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.202392
R Square	0.040962
Adjusted R Square	0.038238
Standard Error	0.715521
Observations	354

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	7.69729	7.69729	15.0346	0.000126
Residual	352	180.213	0.51197		
Total	353	187.911			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	2.915106	0.17456	16.6994	1.61E-46	2.571789
OC	0.185818	0.047923	3.87745	0.00012	0.091567

To assess full mediation, the study regresses OI on TSL, EC, and OC (table 25). In this vein, the study reports an empirical result, which is short of the full mediation criterion. This suggests that the mediating influences of employee creativity and

organisational culture may be necessary but not sufficient conditions when channelling the impact of transformational leadership on organisational leadership.

Table 25: Full Mediation

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.621949
R Square	0.386821
Adjusted R Square	0.381565
Standard Error	0.573767
Observations	354

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	72.6878	24.2293	73.5985	6.29E-37
Residual	350	115.223	0.329209		
Total	353	187.911			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.054359	0.23408	4.504133	9.09E-06	0.593965	1.51475
EC	0.214555	0.05009	4.282782	2.39E-05	0.116026	0.31308
OC	0.021008	0.04106	0.511609	0.60924	-0.05975	0.10176
TSL	0.466047	0.03878	12.01761	4.35E-28	0.389775	0.54231

Finally, this study concludes the empirical analysis by looking into the five characteristics of transformational leadership perceived by employees in the KSA aviation industry. As per the following tables (26, 27, 28, 29, and 30), this study reports empirical evidence that among the transformational leadership characteristics of idealised influence (attribute), idealised influence (behaviour), inspirational motivation, intellectual stimulation, and idealised consideration, this study reports that the inspirational motivation tends to drive organisational innovation the most. This is

followed by the characteristic of behavioural idealised influence, and then by the characteristic of intellectual stimulation.

Table 26: Regressing organisational innovation on attribute idealised influence

SUMMARY OUTPUT					
Regression Statistics					
Multiple R	0.403304				
R Square	0.162654				
Adjusted R Square	0.160276				
Standard Error	0.668586				
Observations	354				
ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	30.5645	30.5645	68.376	2.8E-15
Residual	352	157.346	0.44700		
Total	353	187.911			
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	2.663717	0.11587	22.9880	4.59E-72	2.435825
Attribute Idealised Influence	0.249686	0.03019	8.26897	2.8E-15	0.1903

Table 27: Regressing organisational innovation on behavioural idealised influence

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.49556
R Square	0.24558
Adjusted R Square	0.243437
Standard Error	0.634617

Observations	354

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	46.14717	46.14717	114.5835	2.45E-23
Residual	352	141.7639	0.402738		
Total	353	187.9111			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	2.439316	0.111391	21.89871	1.09E-67	2.22024
Behavioural idealised influence	0.318513	0.029755	10.70437	2.45E-23	0.259992

Table 28: Regressing organisational innovation on inspirational motivation

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.505669
R Square	0.255701
Adjusted R Square	0.253587
Standard Error	0.630345
Observations	354

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	48.04912	48.04912	120.9285	2.23E-24
Residual	352	139.862	0.397335		
Total	353	187.9111			

	Coefficients	*Standard*	*t Stat*	*P-value*	*Lower 95%*	*Upper*

		Error				*95%*
Intercept	2.285817	0.121988	18.73805	7.81E-55	2.0459	2.525734
Inspirational Motivation	0.355347	0.032314	10.99675	2.23E-24	0.291794	0.418899

Table 29: Regressing organisational innovation on intellectual stimulation

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.434521					
R Square	0.188809					
Adjusted R Square	0.186504					
Standard Error	0.658061					
Observations	354					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	35.47928	35.47928	81.9298	9.79E-18	
Residual	352	152.4318	0.433045			
Total	353	187.9111				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.514536	0.122343	20.5532	3.08E-62	2.273921	2.755151
Intellectual Stimulation	0.302216	0.033388	9.051508	9.79E-18	0.23655	0.367882

Table 30: Regressing organisational innovation on idealised consideration

SUMMARY OUTPUT	
Regression Statistics	
Multiple R	0.466857
R Square	0.217956
Adjusted R Square	0.215734

Standard Error	0.646131
Observations	354

ANOVA

	df	SS	MS	F	Significance F
Regression	1	40.95627	40.95627	98.10233	1.46E-20
Residual	352	146.9548	0.417485		
Total	353	187.9111			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.557569	0.108378	23.59851	1.69E-74	2.344419	2.77072	2.344419	2.77072
Idealised Consideration	0.293263	0.029609	9.904662	1.46E-20	0.235031	0.351495	0.235031	0.351495

4.6 Robustness Check and PLS Path Analysis:

This section presents the robustness and validation check for the empirical analysis reported in this study above. The robustness and validation check performed uses PLS techniques for components and path analysis (Richter et al., 2023). This section is presented in four subsections. The first subsection introduces PLS and highlights its logic along with the methodological and algorithmic details. The second subsection presents the logic behind incorporating PLS in this study. The third subsection presents a PLS composite (or confirmatory) components analysis. The composite components analysis is simply a percentage of variance explained equivalent to the traditional covariance-based composite factor analysis reported in an earlier section of this study (Hair et al., 2022). As per the outcomes of the composite components analysis, the third subsection presents PLS measurement and structural analyses. In this regard, whereas the measurement model analysis addresses the extent to which observed transformational leadership attributes are reflected in the rather unobservable and latent transformational leadership construct, the structural model analysis is concerned with the extent to which the latent variable of transformational leadership is replicated in the study variable of organisational innovation in Saudi aviation industry via the mediating mechanisms of employee creativity and organisational culture. In the light of components and structural analyses, the fourth

section concludes this PLS analysis by reporting the bootstrapping model where the structural relationships are tested for statistical significance. Throughout this robustness check section of the study, all PLS analyses are reported using the latest smart PLS reports and the sequence of weight vectors regressions algorithm for structural equations modelling (Ringle et al., 2022).

4.6.1 PLS methodological details:

PLS is a multivariate statistical approach that can be implemented to analyse the multiplicity of relationships among observed and latent variables (Hair et al., 2022). PLS analyses are often observed in settings where the presence of complex networks of relationships in data-driven areas of research may constitute a serious challenge for researchers (Richter et al., 2023). Such challenges revolve around robustly examining the direct and indirect effects of variables on one another, as well as the overall model fit (Cook and Forzani, 2023). PLS is thus typically employed to estimate explanatory or predictive models where data matrices are rather singular (Cheah et al., 2024). As opposed to non-singular, invertible, or well-behaved data matrices, singular data structures are often encountered whenever there are more variables than data points or in the presence of significant features of collinearity among the explanatory variables (Guenther et al., 2023). In this regard, the algorithm ability of PLS to flexibly estimate models with such complex or linearly dependent data structures where the normality assumption in conventional statistical models is greatly violated makes it particularly suitable for composite analysis where study variables are represented as latent constructs that are inherently reflective of latitude of components (Sharma et al., 2023). It follows that, PLS is often used in social science with applications that cross through a variety of disciplines including strategic management, economics, organisational behaviour, sociology, psychology, and human resource management where the ultimate objective is to optimally locate the underlying latent vectors in the data subspace that optimally explains the maximum amount of variation for both the explanatory variables and the variables to be explained (Guenther et al., 2023).

There exist several well-developed mathematical algorithms that are commonly used when applying PLS (Becker et al., 2023). The common purpose of transecting such algorithms is to yield robust results and produce testable parameter estimates for complex data structures where normality and linear codependency are of critical concern (Cho et al., 2023). The original algorithm for PLS is referred to as the non-

linear iterative partial least squares. Such a non-linear iterative procedure involves iteratively identifying the optimal set of principal components that maximises the amount of variation in the study or response variables that can be explained by the respective variation in the explanatory or predictor variables (Hair et al., 2022). Simple partial least squares is another PLS algorithm where the computation of measurement coefficients and structural parameters are simplified via means of a singular value decomposition of the data matrix so as to efficiently determine the latent variables (Ringle et al., 2023). Kernel partial least squares is yet another algorithm often used in PLS where Kernel functional transformation of all non-linear relationships in the structural data matrix ultimately yields a higher-dimensional space that allows for efficiently capturing and interpreting straightforward linear relationships (Yuan and Deng, 2021).

Irrespective of the PLS algorithm that may be adhered to, the ultimate objective throughout the PLS strategy is to identify a smaller set of unobserved constructs or latent variables that optimises the average or common variance explained by another much larger set of observed variables (Sarstedt and Moisescu, 2024). In this concern, latent variables are constructed and analysed further in the structure analysis based on a linear or convex combination of the original or observed variables (Peter and Hadavi, 2023). Latent variables are thus fully inferred from observed underlying variables or components in a fashion that allows for the assessment of the strength and significance of the relationships among such underlying components (Gironda, 2024). This results in reducing the dimensionality of the original data matrix while optimally preserving the initial variability and information content (Gironda, 2024).

PLS analysis is primarily classified into two broad model classes: [1] the measurement model, and [2] the structural model (Cho et al., 2023). Whereas the measurement model represents a path modelling approach where the relationship between observed variables and latent variables are quantified within a framework of composite components analysis, the structural model represents a structural equation modelling approach that chiefly focuses on the relationships among latent constructs that define the explanatory variables and the variables to be explained (Becker et al., 2023). Within the measurement model, PLS path analysis may be carried out formatively (i.e., causally) or reflectively (i.e., effectually). The difference between the formative model and the reflective model lies in the direction of the relationship between observed variables and latent variables (Gironda, 2024). For instance, under

the formative approach, latent unobserved variables are assumed to cause or form the observed variables, and therefore the direction of the relationship between a particular latent variable and its underlying components is conceptualised to start from the latent variable itself (Guenther et al., 2023). Under the reflective approach, however, underlying observed components are assumed to reflect or effectuate the rather unobserved latent variables, and so the relationship between a particular latent variable and its underlying components is initiated at the side of the components. In this respect, depending on the conceptual framework used in a particular study, typical PLS path analysis algorithms flexibly allow for the inclusion of formative and reflective latent variables in the same model (Yuang and Deng, 2021). Moreover, greatly unlikely traditional structural equations modelling that relies on covariance-based techniques and composite factor analysis to fit a common factor model, PLS path analysis uses an optimal explained variation technique along with composite components analysis to fit a composite model that converges only iteratively (Cheah et al., 2024). Furthermore, PLS path analysis accommodates bootstrapping statistical techniques to obtain more reliable estimates of the standard errors, confidence intervals, and significance tests for the path coefficients and model fit statistics (Cook and Forzani, 2023). Such techniques hinge on iteratively resampling the observed data with replacement to create multiple bootstrap samples (Sharma et al., 2023). For each bootstrap sample, the PLS model is estimated, and the path coefficients and relevant statistics are calculated. By repeating this iterative resampling procedure a large number of times, a distribution of estimates can be obtained for each parameter estimate of interest to the outcomes of the analysis. Such distribution of estimates is indispensable for documenting inferences, confidence intervals, and statistical significance for estimated path coefficients necessary for further analysis of the stability of the model and the generalisability of the findings to the population from which the data structure was initially drawn (Sharma et al., 2023).

In view of the preceding, this current study of the impact of transformational leadership on organisational innovation via the mediating influences of employee creativity and organisational culture uses PLS path analysis to report measurement and structural path coefficients. Whereas measurement path coefficients represent the extent to which the latent independent variable of transformational leadership, the latent mediating influences of employee creativity and organisational culture, and the latent study variable of organisational innovation are reflective of their underlying

components, structural path coefficients represent the impact of transformational leadership on organisational innovation in the Saudi aviation industry as channelled through employee creativity and organisational culture. Moreover, the study also reports the outcomes of the bootstrapping resampling model to examine the confidence interval and statistical significance of the structural relationships. Toward this end, the following subsection presents the PLS composite components analysis, which constitutes the building block based on which measurement, structural, and bootstrapping analyses are based.

4.6.2. The logic behind incorporating PLS in this study:

This study employs both regression analysis and PLS to report a comprehensive analysis of the impact of transformational leadership on organisational innovation and the role of the mediating mechanisms of organisational culture and employee creativity in Saudi aviation (Guenther et al., 2023). Though regression analysis is a parametric technique that relies on certain assumptions (normality and homoscedasticity) of the data-generating process of the error term, PLS is a non-parametric technique that abstracts away from such assumptions (Hai et al., 2022). In this regard, the strengths of parametric and non-parametric techniques may be combined for a more thorough understanding of the data collected. For instance, whereas PLS is particularly useful when dealing with a large number of explanatory variables that may be correlated with each other via identifying the most important variables that explain the variation in the endogenous variable, regression analysis may then be used with selected variables to further investigate their relationships (Henseler et al., 2016). This is non-trivial for this study where the explanatory variable of transformational leadership is measured as a function of five attributes (Richter et al., 2023). In this respect, this study reports the relationship between the five attributes and the latent transformational leadership via PLS and measures the relationship between the most pronounced attribute and organisational innovation using regression analysis (Hair et al., 2022).

Moreover, though the theoretical framework adhered to in the study predicts a positive impact of transformational leadership on organisational innovation, the exact mathematical specification of such a relationship has not been specified except for the potential mediating effects of employee creativity and organisational culture. This leaves the relationship to be estimated linearly or non-linearly. In this vein, the rather

complex PLS analysis reported in the study meaningfully complements the regression analysis in case the true data-generating process of the relationship between transformational leadership and organisational innovation was, in fact, non-linear (Becker et al., 2023).

Along the same lines, though PLS analysis is often used in scenarios where predictive performance is regarded as a priority for it deals with multicollinearity and high-dimensional data better than traditional regression analysis, the parameter estimates from the traditional regression remain easily understandable and interpretable particularly for explanatory as opposed to predictive models (Cheah et al., 2024). Toward this end, since this study is chiefly concerned with an explanatory model, the regression analysis reported greatly complements PLS in this respect.

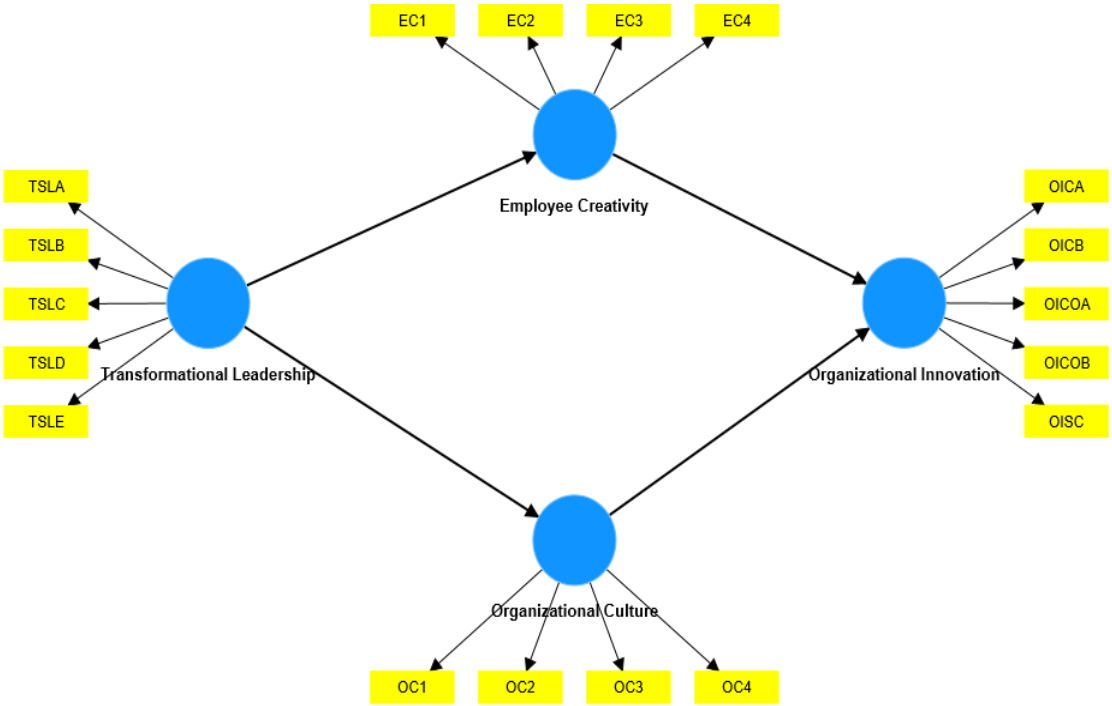
Another important aspect of this study where PLS and traditional regression may be considered mutually reinforcing is the adoption of the post-positivist epistemological philosophy position to this research (Creswell, 2002). Such position is manifested via employing and reporting the two different validation methods and model estimation frameworks of traditional regression and PLS. This is so since the theoretical framework adopted in this study doesn't specify the exact mathematical specification of the relationship between leadership and organisational innovation leaving such specification to be possibly linear or otherwise non-linear. In this respect, the extant literature, on the one hand, recommends PLS for inherently non-linear specifications and on the other hand recommends traditional regression for linear specifications (Hair et al., 2022).

In view of the preceding, this section concludes by referring to an important area where the potential for PLS and regression analysis to complement each other can hardly be overstated. Such area has to be the technical details both techniques use when performing factor reduction and exploratory analysis. In particular, where regression analysis employs PCA, PLS achieves factor reduction via CCA. The main difference between PCA and CCA has to do with the CCA reducing the attributes of explanatory variables while making explicit reference to the relationship they may have with attributes of the variable to be explained (Cheah et al., 2024; Guenther et al., 2023). In this concern, this study finds that once again PLS and regression analysis complement each other since whether reducing factors while referring to the dependent variable is considered more efficient defines a debate far from settled.

4.6.3. PLS Composite Components Analysis:

The PLS composite components analysis reported in this study commences with specifying a formative (as opposed to reflective) measurement model that includes all theoretical attributes of the explanatory, mediating, and outcome variables of the study (Figure 4). For instance; for transformational leadership, the attributes are idealised influence (attribute, TSLA), idealised influence (behaviour, TSLB), inspirational motivation (TSLC), intellectual stimulation (TSLD), and idealised consideration (TSLE); and for organisational innovation, the attributes are organisational structure (OICA), organisational learning facilities (OICB), organisational learning process (OICOA), organisational experimentation (OICOB), and organisational practices (OISC). For the mediating influences of employee creativity and organisational culture, the attributes for employee creativity are trying new ideas (EC1), seeking new ideas (EC2), generating new ideas (EC3), and role model (EC4); and for organisational culture, the attributes are information sharing (OC1), trust (OC2), shared mission (OC3), and shared vision (OC4).

Figure 4:Full measurement path model.



In this regard, as per the outer loadings matrix and list below (Table 31), for the explanatory variable transformational leadership, the entire set of the five attributes satisfied the outer loading statistical threshold of 0.708 (Ringle et al., 2022; Hair et al., 2022). However, for organisational innovation, only the attributes of organisational experimentation and organisational practices satisfied such threshold. Moreover, for employee creativity, the attributes of trying new ideas and seeking new ideas satisfied the threshold and so do the organisational culture attributes of information sharing and trust.

Table 31:Outer loadings matrix and list.

Outer loadings Matrix				
	Employee Creativity	Organisational Culture	Organisational Innovation	Transformational Leadership
EC1	0.810			
EC2	-0.088			
EC3	0.877			
EC4	-0.007			
OC1		0.364		
OC2		0.740		
OC3		0.720		
OC4		0.696		
OICA			0.664	
OICB			0.633	
OICOA			0.690	
OICOB			0.733	
OISC			0.732	
TSLA				0.796
TSLB				0.738
TSLC				0.820
TSLD				0.863
TSLE				0.863
List	Outer loadings			
EC1 <- Employee Creativity	0.810			
EC2 <- Employee Creativity	-0.088			
EC3 <- Employee Creativity	0.877			
EC4 <- Employee Creativity	-0.007			
OC1 <- Organisational Culture	0.364			
OC2 <- Organisational Culture	0.740			
OC3 <- Organisational Culture	0.720			
OC4 <- Organisational Culture	0.696			

OICA <- Organisational Innovation	0.664
OICB <- Organisational Innovation	0.633
OICOA <- Organisational Innovation	0.690
OICOB <- Organisational Innovation	0.733
OISC <- Organisational Innovation	0.732
TSLA <- Transformational Leadership	0.796
TSLB <- Transformational Leadership	0.738
TSLC <- Transformational Leadership	0.820
TSLD <- Transformational Leadership	0.863
TSLE <- Transformational Leadership	0.863

Moreover, the construct reliability and validity measures reported in (table, 32) below reiterate the outer loadings results reported in (table, 31). In fact, since only the explanatory latent variable of transformational leadership is a proper reflection of the entire set of its underlying observed components, only such variable passes the average variance extracted statistical threshold of 0.5 (Ringle et al., 2022; Hair et al., 2022).

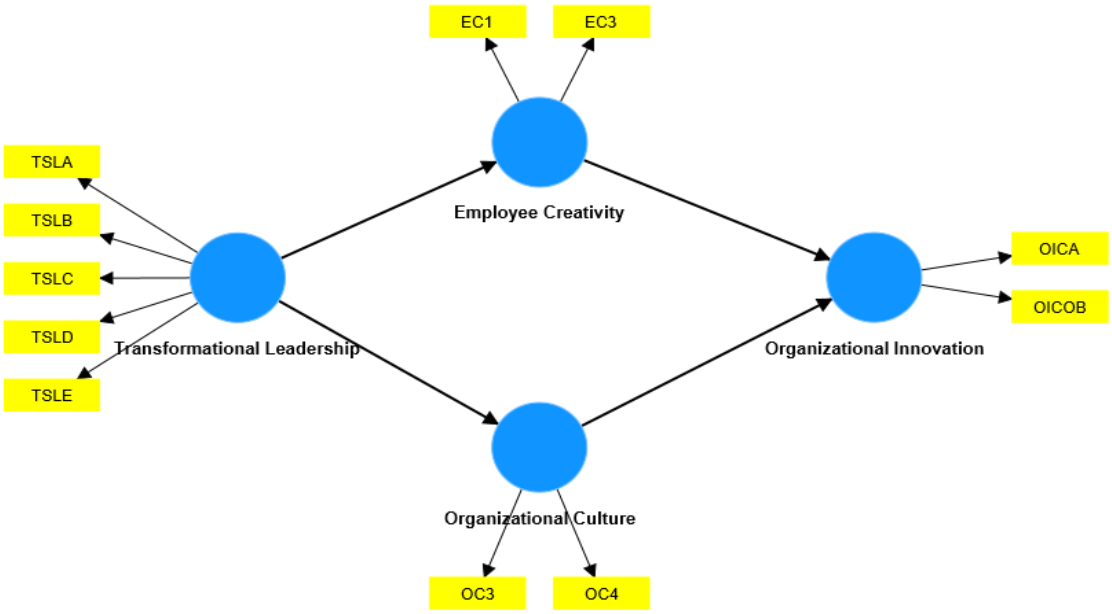
Table 32: full measurement construct reliability and validity.

Construct reliability and validity Overview

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Creativity	0.421	0.593	0.497	0.358
Organisational Culture	0.544	0.591	0.732	0.420
Organisational Innovation	0.733	0.748	0.820	0.478
Transformational Leadership	0.875	0.884	0.909	0.668

In view of the results reported in (Table, 31 and Table, 32 above), the PLS composite components analysis performed in this study results in a reduced measurement model where transformational leadership is reflective of its entire set of attributes, organisational innovation is reflective of the attributes of organisational experimentation and organisational practices, employee creativity is reflective of the attributes of trying new ideas and seeking new ideas, and organisational culture is reflective of the attributes of information sharing and trust (figure, 5).

Figure 5:Reduced measurement model.



In this regard, as per the outer loadings matrix and list below (Table 33), the entire set of attributes is reflective of their respective latent variables as per the outer loading statistical threshold of 0.708 (Ringle et al., 2022; Hair et al., 2022).

Table 33:Reduced measurement outer loadings matrix and list.

Outer loadings Matrix				
	Employee Creativity	Organisational Culture	Organisational Innovation	Transformational Leadership
EC1	0.849			
EC3	0.854			
OC3		0.921		
OC4		0.744		
OICA			0.906	
OICOB			0.727	
TSLA				0.793
TSLB				0.744
TSLC				0.821
TSLD				0.859
TSLE				0.862
List	Outer			

	loadings
EC1 <- Employee Creativity	0.849
EC3 <- Employee Creativity	0.854
OC3 <- Organisational Culture	0.921
OC4 <- Organisational Culture	0.744
OICA <- Organisational Innovation	0.906
OICOB <- Organisational Innovation	0.727
TSLA <- Transformational Leadership	0.793
TSLB <- Transformational Leadership	0.744
TSLC <- Transformational Leadership	0.821
TSLD <- Transformational Leadership	0.859
TSLE <- Transformational Leadership	0.862

The outer loadings results reported above are further corroborated by the construct reliability and validity results reported in (table, 34) below. In this vein, such results satisfy the statistical threshold of 0.5 for the average variance explained for all the explanatory, mediating, and outcome variables in the study.

Table 34: Reduced measurement construct reliability and validity

Overview

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Creativity	0.621	0.621	0.841	0.725
Organisational Culture	0.596	0.713	0.822	0.701
Organisational Innovation	0.537	0.618	0.803	0.674
Transformational Leadership	0.875	0.883	0.909	0.668

4.6.4 Reduced Measurement Model:

This subsection reports weights via which underlying observed components are reflected in their respective latent variables. In this concern, the attribute of idealised consideration tends to drive transformational leadership the most, and this is followed by intellectual stimulation and then inspirational motivation. By the same token, whereas the attribute of organisational experimentation tends to drive organisational innovation the most, the attribute of seeking new ideas drives employee creativity the most, and the attribute of information sharing drives organisational culture the most.

Table 35: Outer weights matrix and list.

Outer weights Matrix

	Employee Creativity	Organisational Culture	Organisational Innovation	Transformational Leadership
EC1	0.582			
EC3	0.592			
OC3		0.738		
OC4		0.430		
OICA			0.739	
OICOB			0.456	
TSLA				0.193
TSLB				0.262
TSLC				0.236
TSLD				0.244
TSLE				0.288

List	Outer weights
EC1 <- Employee Creativity	0.582
EC3 <- Employee Creativity	0.592
OC3 <- Organisational Culture	0.738
OC4 <- Organisational Culture	0.430
OICA <- Organisational Innovation	0.739
OICOB <- Organisational Innovation	0.456
TSLA <- Transformational Leadership	0.193
TSLB <- Transformational Leadership	0.262
TSLC <- Transformational Leadership	0.236
TSLD <- Transformational Leadership	0.244
TSLE <- Transformational Leadership	0.288

4.6.5 Reduced Structural Model:

This subsection presents the structural relationships between all variables in the study. In this respect, smart PLS reports path coefficients based on the correlations between variables (Ringle et al., 2022). This implies that, though the direct path coefficient linking transformational leadership to organisational innovation is 0.367, the mediating path coefficients linking transformational leadership to employee creativity and organisational culture are respectively 0.661 and 0.306. Moreover, the end path coefficients linking the mediating variables of employee creativity and organisational culture to organisation innovation are respectively 0.442 and 0.876. This means that the impact of transformational leadership on organisational innovation is expected to be largely pronounced for the mediating mechanism of organisational culture and less so for employee creativity. This expectation is consistent with the covariance-based conventional analysis reported in earlier sections of this empirical study.

Table 36: Structural correlations.

Correlations				
	Employee Creativity	Organisational Culture	Organisational Innovation	Transformational Leadership
Employee Creativity	1.000	0.367	0.442	0.661
Organisational Culture	0.367	1.000	0.876	0.306
Organisational Innovation	0.442	0.876	1.000	0.367
Transformational Leadership	0.661	0.306	0.367	1.000

4.6.6 Bootstrapping Model and Statistical Significance:

The PLS bootstrapping PLS model conducted in this study is based on 5000 resampling iterations. The path coefficients between the explanatory variable of transformational leadership and the mediating mechanisms of employee creativity and organisational culture are both strongly significant at all traditional levels of statistical significance (Table, 37). In this respect, the path coefficient between transformational leadership and organisational culture is more pronounced than that between transformational leadership and employee creativity. Moreover, the path coefficient between the mediating mechanism of organisational culture and the study variable of organisational innovation is also strongly significant at all traditional levels (Table,

37). However, the path coefficient between employee creativity and organisational innovation still replicates the theoretical prediction, such a coefficient is only statistically significant at the higher significance of 10% (Table, 37). Toward this end, the total indirect impact of the explanatory variable of transformational leadership on the study variable of organisational innovation is both well-pronounced and strongly significant at all traditional levels of statistical significance (Table, 37). By the same token, the specific indirect effects pertaining to the impact of transformational leadership on organisational innovation as channelled through employee creativity and organisational culture are consistent with the theoretical predictions (Table, 37). Nonetheless, such specific effects are strongly more pronounced for organisational culture than for employee creativity. The statistical outcomes reported in this section may be explained in the context of the Saudi aviation industry along the lines that though employee creativity is driven by transformational leadership and has a positive impact on organisational innovation, such creativity tends to be conservatively exercised in an industry where strict predefined standards and minimal margins of errors dictate all principal activities.

Table 37: Path coefficients with total indirect effects, and specific indirect effects.

Total effects

Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Employee Creativity -> Organisational Innovation	0.117	0.116	0.079	1.491	0.068
Organisational Culture -> Organisational Innovation	0.851	0.855	0.053	16.144	0.000
Transformational Leadership -> Employee Creativity	0.661	0.680	0.066	10.085	0.000
Transformational Leadership -> Organisational Culture	0.305	0.314	0.131	2.324	0.010
Transformational Leadership -> Organisational Innovation	0.337	0.345	0.129	2.619	0.004

Specific indirect effects

Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Transformational Leadership -> Organisational Culture -> Organisational Innovation	0.260	0.265	0.107	2.436	0.007
Transformational Leadership -> Employee Creativity -> Organisational Innovation	0.077	0.080	0.055	1.398	0.081

Chapter 5: Discussion and Recommendations

5.1 Introduction to this Chapter:

This chapter discusses the results of this study, relates the results to the extant literature, and concludes with recommendations for the KSA aviation industry. The chapter is presented in two sections: [1] The discussion of results, and [2] recommendations for the KSA aviation industry. The discussion of the results reiterates the objectives of the study and is presented in accordance with the three alternative hypotheses empirically supported in the data analysis performed in the previous chapter (4). The recommendations for the KSA aviation industry revolve around the main empirical outcome of this study Transformational leadership in KSA aviation may serve as a pillar for organisational innovation by creating a supportive and collaborative environment for creative problem-solving and innovative intervention. This is so since, driven by appreciating the significance of encouraging employees to experiment, take calculated risks, and learn from failures, transformational leadership at KSA Aviation may promote a culture of technical training, on-the-job learning, and continuous education.

5.1.1 Development toward Transformational Leadership:

Transformational leaders who motivate and inspire their teams can be particularly effective in fostering a culture of innovation (Nohe & Hertel, 2017). These leaders encourage employees to think creatively and challenge the status quo (O'Reilly & Chatman, 2020). In the Saudi aviation industry, transformational leadership has been key to the sector's efforts to modernise airports, improve customer experience, and enhance operational efficiency. Since the aviation industry is constantly changing, whether due to new technologies, regulatory changes, or shifts in customer expectations, transformational leaders who are adaptable and responsive to these changes encourage innovation as a way of staying ahead of competitors and meeting evolving demands. Such leaders can help organisations quickly pivot when new opportunities arise, such as the growing demand for eco-friendly aviation solutions. Transformational leaders in Saudi aviation may also encourage interdepartmental collaboration and information sharing where operations, maintenance, safety, and customer service departments must work closely together, ultimately building a collaborative culture of innovative solutions.

5.2 Discussion of Study Results:

The discussion of study results is presented in terms of [1] conceptual summary of research results, [2] explaining the impact of organisational (transformational) leadership on organisational innovation, [3] explaining the extent to which the impact of organisational leadership on organisational innovation is mediated by employee creativity, [4] explaining the extent to which the impact of organisational leadership on organisational innovation is mediated by organisational culture, and [5] discussing results with contemporary examples from Saudi aviation. With respect to the research objective of explaining the impact of organisational leadership on organisational innovation, this study replicates the notion that transformational leadership is often thought to encourage innovation and creativity by providing a supportive environment that values new ideas and perspectives and, in a manner, consistent with empowering employees to take ownership of their work and challenge the status quo, which eventually leads to improved employee productivity and efficiency, and amplified levels of organisational innovation. With respect to the research aim of explaining the extent to which the impact of organisational leadership on organisational innovation is mediated by employee creativity, this study emphasises that when employees feel that their creativity is valued and their ideas are heard, they are predicted to become more engaged and satisfied in their work. This, in turn, boosts employee motivation and productivity, as well as overall organisational innovation and creative problem-solving. With respect to explaining the extent to which the impact of organisational leadership on organisational innovation is mediated by organisational culture, this study contends that an organisational culture that supports risk-taking, open communication, collaboration, learning, empowerment, recognition, and customer focus provides a fertile environment for organisational innovation to thrive, and is, itself, indicative of underlying effective organisational leadership.

5.2.1 The Conceptual Summary of Research Results:

Table 38: Summary of Outcomes of Empirical Tests:

Alternative Hypothesis	Reject / Fail to reject the null hypothesis	Statistical Significance
The impact of organisational leadership on organisational innovation is positive and significant in the KSA aviation industry.	Reject the null hypothesis	Rejection of the null hypothesis is strongly significant at all traditional levels (i.e., the 1%, 5%, and 10% levels).
Employee creativity significantly mediates the impact of organisational leadership on organisational innovation in the KSA aviation industry.	Reject the null hypothesis	Rejection of the null hypothesis is significant at the 10% level.
Organisational culture significantly mediates the impact of organisational leadership on organisational innovation in the KSA aviation industry.	Reject the null hypothesis	Rejection of the null hypothesis is strongly significant at all traditional levels.

In view of the empirical results summarised above, this study shows that effective organisational leadership accentuates overall organisational performance via the venues of healthy organisational culture, and employee creativity and empowerment (Phuong and Takahashi, 2021). In this vein, the current study empirically documents the impact of organisational leadership on organisational innovation in the aviation industry in Saudi Arabia. The results of the study show that perceptions of the employees in the aviation industry in Saudi Arabia with respect to the underlying leadership style of their organisation are consistent with transformational leadership. Furthermore, the study reports empirical evidence that the impact of transformational leadership on organisational innovation in the KSA aviation industry is strongly positive and is mediated by employee creativity and organisational culture as per the theoretical framework employed in the study. The study, however, doesn't empirically report that the mediating variables of employee creativity and

organisational culture fully mediate the relationship between transformational leadership and organisational innovation in the KSA aviation industry. This suggests that the variables of employee creativity and organisational culture may be a necessity but not sufficient with respect to mediating the impact of transformational leadership on organisational innovation.

In general, Organisational leadership tends to crucially drive organisational innovation and performance (Altunoğlu et al., 2020). Influential and effective organisational leadership may inspire and motivate employees and followers, support their innovation and creativity, and formulate a positive and value-added organisational culture (Arnold, 2017). In particular, effective organisational leadership sets goals and communicates organisational objectives clearly (Asbari et al., 2021). Effective leadership is, by definition, visionary, and provides unified and goal-congruent direction for their organisations (Braun et al., 2013). This clarity of vision and purpose further pushes employees and followers to fully digest their assignments and work expectations, and better align their inputs and work activities toward the achievement of the larger organisational objective with dedication, enthusiasm, and work ethic (Chen et al., 2021). In this fashion, the impact of effective organisational leadership on organisational culture can hardly be overstated. For instance, effective organisational leadership incubates an organisational culture of teamwork, collaboration, a healthy work environment, cohesion of talents, work ownership, integrity, excellence, and non-redundancy of individual employee efforts (Braun et al., 2013). Indeed, effective organisational leadership promotes an organisational culture of employee empowerment, delegation of tasks, dedication, mutual trust, work ethic, continuous training, and sustainable growth (Elkins and Keller, 2003). In this concern, truly empowered employees tend to feel valued and appreciated in a fashion conducive to improved organisational performance and enhanced problem-solving.

Moreover, given the heavy emphasis effective organisational leadership tends to place on productive communication within the organisation and organisational adaptability and change dynamics, such leadership provides an impetus for employee creativity (Ode and Ayavoo, 2020). In fact, under effective organisational leadership, employees and followers are better enabled to convey their expectations, provide their feedback, and communicate their generated ideas clearly and openly so that creative problem-solving is facilitated and misunderstandings and conflicts with the organisation are

mitigated and reduced (Khoirunnisa and Almahendra, 2022). Employee creativity goes a long way with the paradigm shift upheld by effective organisational leadership given the uncertainties and the many dynamics involved in the contemporary business world (Yang et al., 2017). Undeniably, through effective organisational leadership that embraces adaptability to uncertain conditions and dynamic change management, employees start contributing meaningfully toward overall organisational performance by virtue of dealing with uncertainties as opportunities while thinking of novel approaches to the accomplishment of their assignments and work expectations (Semedo et al., 2018).

- **Explaining the impact of organisational (transformational) leadership on organisational innovation:**

Transformational leadership is typically hypothesised to have a significant impact on organisational innovation given the emphasis of that particular leadership style on the inspiration and motivation of employees and followers to achieve their full potential and sacrifice and go beyond their narrow or personal interests for the sake of the overall organisational performance (O'Reilly and Chatman, 2020). For instance, transformational leadership is typically positively associated with increased levels of employee engagement. Here, transformational leaders can inspire and engage their employees by creating a compelling vision, setting high expectations, and fostering a sense of purpose (Islam et al., 2021). When employees feel inspired and connected to the organisation's goals, they are more likely to be engaged in their work, leading to higher levels of innovative and creative organisational performance. By the same token, transformational leadership is conceptualised to augment organisational innovation by elevating the productivity and efficiency levels of employees and followers (Fuller et al., 2022). To reiterate, transformational leadership tends to significantly shape organisational culture. When transformational leadership prioritises and demonstrates its support for innovation, it sends a strong message throughout the organisation that innovation is valued, encouraged, and sponsored by organisational leadership (Kim and Park, 2020). In this sense, transformational leadership is often thought to encourage innovation and creativity by providing a supportive environment that values new ideas and perspectives and, in a manner, consistent with empowering employees to take ownership of their work and challenge the status quo, which eventually leads to improved employee productivity and efficiency, and amplified levels of organisational innovation (Koh et al., 2019). In

addition, transformational leadership may result in innovative and creative organisational practices. This is so given the focus of transformational leadership on investing in human capital and assuring the satisfaction and retention of employees (Nohe and Hertel, 2017). Literally, transformational leadership allows for an accommodating environment that prioritises the human factor and encompasses support, mentorship, recognition and celebration of exerted efforts. This keeps employees committed to the organisation, reducing turnover rates and enhancing the levels of creative employee problem-solving solving the overall levels of organisational innovation (Jaiswal and Dhar, 2017). Authentically, transformational leadership values greatly the meaningful investment in the development and growth of employees and followers (Coyle-Shapiro et al., 2018). On this subject, transformational leaders are documented to personally identify with the higher potential of employees while providing them with all possible opportunities for learning and advancement (Crede et al., 2019). Of this, transformational leadership tends to think of employees as future leaders within the organisation where continuity and long-term organisational success are only possible with the creative and innovative practices of employees. Chiefly, transformational leadership attributes of trust, integrity, and transparency promote open and constructive communication, creative collaboration and effort synthesis, and a highly effective teamwork environment (Clarke, 2013). This creates a healthy and innovation-driven organisational culture where employees feel supported to generate ideas, express their thoughts, and contribute creatively toward envisioned and strategic organisational goals (Baron and Kenny, 1986). In this view, transformational leadership is most of all articulated as an agent for managing change and dealing with operating risks and uncertainties. Transformational leadership inspires organisational growth and seeks out opportunities via employee creativity and organisational innovation under the umbrella of an organisational culture that accommodates the aspirations and endeavours of employees (Islam et al., 2021).

- **Explaining The extent to which The Impact of Organisational Leadership on Organisational Innovation is mediated by Employee Creativity:**

Several mediating variables, including, e.g., organisational support, trust in leadership, employee autonomy, employee organisational identification, and employee job satisfaction, are identified to influence how transformational leadership tends to impact organisational performance (Braun et al., 2013). However, the

literature addressing the mediation between transformational leadership and organisational innovation is rather scant (Fuller et al., 2022). Such literature tends to mostly focus on the healthy and positive organisational culture stimulated by transformational leadership without giving explicit attention to micro-level variables including that of employee creativity. In this context, Setiawan et al. (2021) introduce the explicit role of employee creativity as a strictly exogenous mediating variable besides organisational culture. Along these lines, transformational leadership is hypothesised to have a direct, well-pronounced, and positive impact on employee creativity via encouraging employees to think outside the box, explore new ideas, and take risks and keep them always inspired and motivated to perform their activities in accordance with a shared vision and a set of higher-level expectations (Hasel and Grover, 2013). Transformational leaders, also serve as role models for creativity. They continuously challenge the status quo, embrace change, and encourage their employees and followers to think creatively and solve problems innovatively with enthusiasm, passion, and persistence (Shujahat et al., 2019).

Positive research has also consistently shown that employee creativity is positively and significantly replicated in transformational leadership (Kianto et al., 2013). Employees who are the subject of transformational leadership tend to exhibit higher levels of innovative thinking, problem-solving skills, and willingness to take initiative (Fuller et al., 2022). On this basis, transformational leadership is innocuous in creating a supportive and stimulating organisational environment that promotes and rewards creative contributions (Chen et al., 2021). As proof of this, the hypothetical development of the relationship between transformational leadership and employee creativity hinges on the critical role transformational leadership assumes in enhancing employee creativity in terms of inspiring and empowering employees and enabling them to harness their creative potential, inventive ideas, and genuine problem solving (Andreeva et al., 2022).

This study empirically reports that the impact of employee creativity on organisational innovation is both well-pronounced and statistically significant. Employee creativity tends to have a strong impact on organisational innovation given the notion that when employees are encouraged to think creatively and share their innovative ideas, new products, processes, and services could be genuinely developed in a manner conducive to augmenting organisational growth and competitiveness (Andreeva et al., 2022). Organisational innovation comprises the implementation of

new ideas, methods, or processes that result in positive changes within the organisation (Ode and Ayavoo, 2020). It is essential for organisations to espouse an environment that encourages and supports employee creativity to stimulate organisational innovation. For instance, employees who are given the freedom to think creatively are more likely to generate innovative ideas. By tapping into their diverse perspectives, skills, and experiences, organisations can tap into a wide range of innovative possibilities (Kianto et al., 2013). Moreover, creativity enables employees to approach problems from new angles and find genuine solutions. By encouraging employees to think outside the box, organisations can unlock creative problem-solving abilities, leading to breakthrough innovations (Hasel and Grover, 2017). In addition, organisational innovation is often a function of collaborative environments where employees can express and share creative ideas and build upon each other's creativity (Andreeva et al., 2022). When employees feel comfortable sharing their ideas and working together, it stimulates a culture of organisational innovation. Besides, employee creativity often involves taking risks and stepping into uncharted territories. Organisations that encourage employees to experiment and take calculated risks create an environment that supports innovation. This allows for the exploration of new ideas and methods, increasing the chances of discovering groundbreaking solutions (Khoirunnisa and Almahendra, 2022). It’s worth noting in this concern that the extent to which employee creativity results in concrete organisational innovation depends on the level of employee engagement and the extent to which continuous learning intercepts with organisational culture. In this regard, when employees feel that their creativity is valued and their ideas are heard, they are predicted to become more engaged and satisfied in their work. This, in turn, boosts employee motivation and productivity, as well as overall organisational innovation and creative problem-solving. Likewise, organisational innovation rests on prioritising employee learning, continuous education, and development in terms of providing opportunities for skill-building, training, exposure to new ideas, and empowering employees to augment their creative thinking abilities and sustain overall organisational innovation. To sum up, employee creativity is a key driver of organisational innovation. Organisations that advance a culture of creativity and provide the necessary support and opportunities for employees to express and share their ideas are more likely to experience breakthrough innovations and maintain a

competitive edge in today's rapidly changing, dynamic, and increasingly competitive business environments.

- **Explaining The extent to which The Impact of Organisational Leadership on Organisational Innovation is mediated by Organisational Culture:**

This study documents empirical evidence that transformational leadership has a significant and strongly positive impact on organisational culture. Transformational leadership promotes a culture of openness, collaboration, and continuous improvement, and is documented for its ability to create a compelling vision and inspire employees and followers to work towards it (Islam et al., 20121). Transformational leadership communicates the vision of the organisation effectively and aligns the goals and values of the organisation with those of its employees via fostering a shared sense of purpose that becomes an inseparable component embedded in organisational culture (Fuller et al., 2022).

The hypothetical development of the impact transformational leadership has on organisational culture hinges on the premise that transformational leadership tends to actively engage employees and followers (Chen et al., 2021). The true genesis of transformational leadership is providing employees with support, guidance, and mentorship while encouraging open communication, trust, and mutual respect, creating a positive and inclusive work environment (Fuller et al., 2022). Transformational leadership thus promotes employee collaboration and effective teamwork, as well as a strong commitment to the organisation's mission and values (Abdulrazaq et al., 2020). In the same way, transformational leadership advances a culture of innovation and risk-taking by empowering employees and followers to think creatively, experiment with new ideas, and challenge the status quo (Braun et al., 2013). This creates an atmosphere where employees feel protected to vent their thoughts, suggest improvements, and take calculated risks. Besides, transformational leadership greatly emphasises personal growth and the conceptual and technical development of employees. The core of transformational leadership is to invest in the professional development of employees and provide them with opportunities for learning and skill-building while encouraging them to reach their full potential (Crede et al., 2022). This transformational leadership’s commitment to individual growth bolsters a culture of continuous education, technical training, and performance improvement, where employees are always motivated to develop and update their skill sets and know-how while meaningfully contributing to overall organisational

performance (Kim and Park, 2020). To sum up, transformational leadership has a positive and well-pronounced impact on organisational culture. This study shows that such impact is a function of transformational leadership furthering a shared vision, collaboration, innovation, and employee development. By embodying these values and behaviours, transformational leadership spell out the cultural norms and practices of the organisation, ultimately leading to higher levels of employee engagement, satisfaction, and improved overall organisational performance (Fuller et al., 2022; Islam et al., 2021).

This study further reports that the impact of organisational culture on organisational innovation in the KSA aviation industry is positive and significant. Organisational culture defines the beliefs, values, norms, and behaviours that govern all interactions and dynamics within the organisation (Iqbal et al., 2022). Such organisational culture can either support or hinder organisational innovation efforts depending on the particular attributes of that culture (Alharbi, 2021). for instance, a culture that encourages risk-taking and tolerates failure is more likely to push forward organisational innovation and creative organisational practices (Felix et al., 2019). When employees feel safe to take risks and learn from their mistakes, they are more inclined to generate and implement new ideas. Moreover, a culture that promotes open communication and collaboration among employees tends to facilitate the sharing and exchange of ideas (Kiyabo and Isaga, 2020). When employees have open platforms to freely communicate their ideas and thoughts and collaborate on projects, organisational creativity and innovation become greatly supported. Besides, an organisational culture that values continuous learning and development provides employees with opportunities to enhance their skills and knowledge (Alharbi, 2021). This allows them to bring fresh perspectives and innovative thinking to daily work activities and routine assignments. Likewise, when employees are empowered and given autonomy, they feel a sense of ownership over their work, which allows them to explore new ideas and approaches, resulting in innovative solutions, inventive problem-solving, and creative interventions (Iqbal et al., 2022). Along the same lines, an organisational culture that recognises and rewards innovative contributions motivates employees to actively engage in the organisational innovation process (Felix et al., 2019). Recognising and celebrating innovative ideas and creative problem-solving and initiatives reinforces organisational innovation along with its organisational performance outcomes. furthermore, an organisational culture that is

adaptable and flexible can respond effectively to changing market demands and industry trends. This flexibility allows organisations to experiment, try novel approaches and tactics, and adapt quickly, pushing forward in the process of organisational innovation. Following the same line of reasoning, an organisational culture driven by customer service tends to encourage employees to seek and implement innovative solutions that meet the evolving needs and demanding expectations of customers. This customer-centric approach on the organisational level tends to be associated greatly with higher levels of organisational innovation. To sum up, organisational culture has a profound impact on organisational innovation. A culture that supports risk-taking, open communication, collaboration, learning, empowerment, recognition, and customer focus provides a fertile environment for innovation to thrive. By shaping and inculcating a culture of innovation and creativity, organisations can unleash the genuine potential of their employees and achieve and sustain competitive organisational performance (Iqbal et al., 2022).

- **Discussing Results with Contemporary Examples from Saudi Aviation**

The results reported in this study are consistent with concrete examples in contemporary Saudi aviation. In particular, the impact of organisational leadership on organisational innovation in the Saudi aviation sector can be explored through several key examples that demonstrate how leadership practices can shape the innovation capabilities of aviation organisations (Baghdadi & Kishk, 2017). Such examples may encompass both direct leadership actions and the broader leadership environment that fosters creativity and innovation. For instance, Saudi Arabian Airlines (Saudia) has undergone a significant transformation under visionary leadership (Ekore et al., 2020). The leadership of the airline has focused on aligning innovation with the company's overall strategic vision, which includes expanding its fleet, introducing state-of-the-art technology, and enhancing customer service. The CEO's role in setting a clear vision for modernisation, including the introduction of new aircraft, digitisation of operations, and the adoption of new technologies like artificial intelligence for passenger service, highlights how leadership can directly influence innovation (Ekore et al., 2020). In addition, at King Abdulaziz International Airport (Jeddah), the leadership team has fostered a culture that encourages collaboration between different departments and stakeholders. This culture encourages employees to share innovative ideas freely, from ground services to air traffic management.

Leadership within the airport administration regularly holds brainstorming sessions and innovation workshops, ensuring employees at all levels contribute ideas (Al Hashmi et al., 2020). This leadership style encourages cross-functional innovation—for example, improvements in airport passenger flow and the development of more efficient baggage handling systems, which improve operational efficiency and customer satisfaction. Innovation thrives because leadership actively fosters an environment of creativity and open communication (Al Hashmi et al., 2020). Moreover, the leadership at the Saudi General Authority of Civil Aviation (GACA) has actively embraced technological innovation to improve the country's aviation infrastructure (Almahamid et al., 2021). For instance, GACA's leadership has been involved in the push towards smart airports, with digital check-ins, automated baggage systems, and AI-powered customer services becoming a part of the strategic focus. Such a proactive leadership approach towards embracing digital transformation and technology has led to the implementation of cloud-based solutions, AI-based flight operations management, and improved predictive maintenance systems across Saudi aviation (Almahamid et al., 2021). These innovations improve efficiency, reduce costs, and enhance safety, thus driving overall growth in the sector. Furthermore, as part of Vision 2030's goals for sustainability, the leadership within Saudi Arabian Airlines has committed to making its operations more environmentally friendly by introducing green initiatives (Alshahrani et al., 2022). The airline has implemented eco-friendly fuel alternatives, such as biofuels and hybrid aircraft, as well as investing in more energy-efficient technologies within its fleet. Leadership's commitment to sustainability has been a key driver of innovation. Such leadership-driven push towards sustainability has resulted in the introduction of more sustainable aviation practices, like carbon offsetting programs and the reduction of greenhouse gas emissions, contributing to the broader goals of Vision 2030 while positioning Saudi Arabia's aviation sector as a leader in green initiatives (Baghdadi & Kishk, 2017).

- **Discussion The National Culture and Hofstede (2001):**

National culture significantly influences leadership styles and organisational innovation. Hofstede's (2001) cultural dimensions provide a framework for understanding these cultural impacts. In the context of Saudi Arabia, cultural characteristics such as high power distance, collectivism, and uncertainty avoidance shape leadership behaviours and affect innovation processes. In this respect, Hofstede's model identifies several cultural dimensions relevant to Saudi Arabia and provides valuable insights into how national culture influences leadership and innovation in the country (Harbi et al., 2017). In particular, Saudi Arabia scores high on power distance, indicating acceptance of hierarchical order, centralised decision-making, and authoritative leadership, where decisions are made at the top and subordinates are expected to comply without question (At-Twaijri & Al-Muhaiza, 1996). High power distance can limit open communication and the free exchange of ideas, which are essential for innovation (Hofstede, 2001). Moreover, the country exhibits collectivist tendencies, emphasising group loyalty and cohesion over individual achievements (Aldhuwaihi et al., 2012). Such collectivism encourages leaders to focus on team cohesion and collective success, promoting a collaborative work environment (EXED ASIA, 2024). Collectivist cultures may thus prioritize group harmony over challenging existing norms, potentially suppressing novel ideas (Hofstede, 2001). Saudi Arabia also scores high on the uncertainty avoidance dimension, reflecting a preference for structured situations and clear rules to avoid ambiguity (Al-Meer, 1989). Such high uncertainty avoidance leads leaders to prefer established procedures and discourage risk-taking, potentially hindering innovation (Adham & Hammer, 2021). Furthermore, a preference for certainty can lead organisations to resist change and avoid innovative ventures that involve risk (Hofstede, 2001). Toward this end and given the cultural challenges highlighted above with respect to the relationship between organisational leadership and organisational innovation, the 2030 vision of the kingdom currently aims to transform the cultural landscape by encouraging more open communication and reducing hierarchical barriers to stimulate organisational innovation (Alotaibi & Campbell, 2022).

As measured by Hofstede's dimensions, national culture in KSA deeply shapes both innovation and transformational leadership within organisations. KSA scores highly on Power Distance and Uncertainty Avoidance, moderate to high Masculinity, with low Individualism. These cultural traits influence how employees and leaders interact,

make decisions, and respond to change. Saudi Arabia's high Power Distance means that hierarchical structures are deeply ingrained, and authority is rarely questioned. In the case organisations used in this research, transformational leadership relies on inspiring followers and encouraging innovation; this could prove challenging, as employees may hesitate to challenge or question their leaders and their assumptions.

5.3 Recommendations for the KSA Aviation Industry:

This section is presented in terms of: [1] Recommendations for Saudi Aviation leadership, and [2] Policy Recommendations.

5.3.1. Recommendations for Saudi Aviation Leadership:

Innovation in the KSA Aviation industry is essential for Saudi Aviation firms to stay competitive in today's fast-paced and ever-changing business environment. It involves the development and implementation of new ideas, processes, products, or aviation services that can improve operating efficiency, bottom-line outcomes, and customer satisfaction levels. Indeed, transformational leadership in KSA aviation may serve as a pillar for organisational innovation by creating a supportive and collaborative environment for creative problem-solving and innovative intervention. Further, driven by appreciating the significance of encouraging employees to experiment, take calculated risks, and learn from failures, transformational leadership at KSA Aviation may promote a culture of technical training, on-the-job learning, and continuous education. This may provide employees with the resources, training packages, and opportunities to develop their skills and knowledge, which eventually contribute to original thinking, inventive problem-solving, and overall organisational innovation.

This study shows that transformational leadership tends to foster an environment that supports creativity and innovation. They provide their employees with autonomy and trust, allowing them to freely express their ideas and experiment with different approaches. By easing up hierarchical barriers and empowering all employees, this study may suggest that transformational leadership at KSA Aviation creates a sense of psychological safety, where employees feel comfortable sharing innovative thoughts without fear of criticism, blame, or judgment. Since the results of this study show that transformational leadership significantly impacts employee creativity, which in turn significantly impacts organisational innovation, this study may suggest that the KSA aviation industry applies an inclusive approach to generate a wide range of employee

creative ideas while promoting collaborative problem-solving and leading to innovative organisational outcomes.

In this study, transformational leadership is shown to positively impact an assortment of desirable organisational culture characteristics, such as trust in leadership, innovation, collaboration, and employee engagement. Since the KSA aviation industry embraces transformational leadership, this study recommends such an industry continue investing in an organisational culture that encourages and supports higher levels of performance, creativity, and employee satisfaction.

Given the evidence reported in this study that employee creativity has a positive and significant impact on organisational innovation, this study recommends in the context of the KSA aviation industry that the industry creates structures and processes that support and reward employee creativity. This may include establishing channels for idea submission and evaluation, recognising and celebrating innovative contributions, and providing resources and support for implementing new ideas.

With respect to the variables of organisational culture and organisation innovation, the KSA aviation industry is recommended to continue supporting a culture of organisational innovation through the intentional and concerted efforts of transformational leadership at all levels of the organisation. This may involve aligning organisational values, practices, and processes to support innovation and continuously reinforcing the importance of innovation in achieving organisational goals.

In view of the preceding, though organisational innovation is essential for the KSA aviation industry to stay competitive and adapt to a rapidly changing business environment, the industry is recommended to be sensitive to aspects including resistance to change due to paradigm paralysis and job security, employee risk aversion due to reluctance and fear of adverse future scenarios, lack of cross-functional collaboration, and the adequacy of a holistic innovation strategy where innovation initiatives are to be aligned with the industry's overall goals and supported by a well-defined strategy that guides decision-making and prioritisation. Furthermore, the recommendations reported in this study are adding to already existing solutions incorporated in Saudi aviation. The leadership team at Alpha Star Aviation, a private aviation company, emphasises the importance of employee creativity in delivering personalised services to high-net-worth clients (Ekore et al., 2020). The company’s leadership provides the freedom and resources for employees to experiment with new approaches to customer service, such as personalised flight

itineraries, in-flight experiences, and custom aircraft management services (Baghdadi & Kishk, 2017). It follows that through transformational leadership, which focuses on motivating employees and encouraging innovative problem-solving, Alpha Star has been able to consistently innovate its service offerings, driving customer loyalty and attracting a more diverse clientele (Ekore et al., 2020). Moreover, the leadership of Flynas, a low-cost carrier in Saudi Arabia, has been instrumental in introducing innovative business models (Alarfaj & Alghowinem, 2018). The leadership team embraced risk-taking by investing in technological platforms to offer flexible, low-cost services, such as online booking systems and self-service check-ins. The leadership also prioritised expanding routes to underserved markets to increase the airline's competitive edge (Aljohani, 2021). Such Leadership's willingness to take calculated risks has allowed Flynas to drive market innovation and expand its customer base, especially as it offers a more affordable and technologically advanced flying experience compared to its competitors. By the same token, Leadership at King Fahd International Airport (Dammam) actively empowers employees to participate in innovation initiatives by introducing employee recognition programs for ideas that improve operational efficiency (Aljohani, 2021). This includes everything from optimising check-in times to introducing automated baggage systems. This employee-driven innovation, encouraged by leadership, leads to practical solutions like reduced processing times for passengers and smoother baggage handling, which boosts operational efficiency and enhances customer satisfaction (Ekore, 2020).

5.3.2 Policy Recommendations:

In the Saudi aviation sector, organisational leadership plays a crucial role in driving organisational innovation. Through strategic vision, fostering creativity, adopting new technologies, and encouraging a culture of innovation, leadership can significantly impact the growth and competitiveness of aviation organisations. This demonstrates how effective leadership drives innovation in the Saudi aviation industry, aligning with broader goals such as those set out in Vision 2030, including sustainability, technological advancement, and global connectivity.

In light of the empirical evidence documented in this study, this section reports policy recommendations for the Saudi aviation industry with respect to the exercise of transformational leadership for the enhancement of organisational innovation through an organisational culture of positive change, operational efficiency, and sustainable growth. The following recommendations recognise that stimulating organisational

innovation through organisational leadership is an ongoing process that requires continuous support, encouragement, and guidance from authorities and policymakers.

Transformational leaders tend to lead by example and through the creation of initiatives, incentives, and follower support mechanisms. Here, Saudi aviation authorities may develop key performance indicators (KPIs) and monitoring mechanisms that revolve around creating customer value and establishing new business models (Baghdadi and Kishk, 2017). Such indicators and mechanisms may be designed to track the progress of transformational leadership initiatives and organisational innovation efforts, evaluate the impact of policy interventions, and adjust strategies based on the performance data of transformational aviation leaders (Bastola et al., 2021; Osman et al., 2021).

In this regard, Saudi aviation policymakers may be recommended to establish a clear and comprehensive framework for transformational leadership. Such a framework may emphasise visionary leadership, inspiring team members, encouraging employee creativity and innovation, and promoting a culture of continuous improvement. Moreover, Saudi aviation authorities may formulate leadership development programs to supply aviation leaders and upper-level management with the skills and mindset needed to drive transformation within the organisations making up the Saudi aviation industry (Al Hashmi et al., 2020).

Saudi aviation industry policymakers are also recommended to establish formal channels via which collaboration and knowledge sharing may be facilitated between aviation leaders and other stakeholders, including government agencies, airlines, airports, aerospace manufacturers, and regulatory bodies (Shkvaria et al., 2019). Encouraging open communication and information exchange can go a long way in the exercise of transformational leadership while creating a culture of innovation and promoting the implementation of new ideas and best practices across the industry (Ekore et al., 2020).

Despite the emphasis that the Saudi aviation industry currently places on organisational innovation, such industry has left much to be explored in terms of leadership practices that are innocuous to innovation (Khan et al., 2022). For too long, the Saudi aviation industry has been primarily dominated by transactional and bureaucratic leadership styles that typically stress cost reduction and accentuate traditional safety measures (Baghdadi and Kishk, 2017). It thus follows that Saudi aviation policymakers are recommended to allocate resources and funding for RandD

initiatives and regulatory sandboxes aimed at promoting technological innovation, testing and accelerating the adoption of innovative solutions, and investing in cutting-edge technologies, such as sustainable aviation fuels, electric aircraft, and digital aviation solutions (Baghdadi and Kishk, 2017). Such initiatives may drive operational efficiency, reduce environmental impact, enhance competitiveness within the industry, and most importantly augment followers' identification with the group or organisation, in which innovation is likely to occur (Lee et al., 2019). In this vein, since transformational leadership strongly hinges on the individual interaction between leaders and followers, employee identification with organisational leadership paves the way for the transformational leadership style to start effectively materialising and become more pronounced in organisational innovation (Lumpe, 2016). In turn, transformational leadership in Saudi aviation may inspire and consistently communicate a compelling vision for the entire industry that encourages creativity, supports experimentation, rewards innovation, encourages collaboration and sharing ideas, and promotes a willingness to challenge the status quo with unique perspectives and talents (Shkvaria et al., 2019). Such leadership is further expected to lead by example and demonstrate a higher level of commitment to innovation through sponsoring organisational activities via which followers are empowered with the autonomy and resources needed to think creatively, take risks, seize continuous growth and learning opportunities, exercise professional scepticism, and test new ideas while having to encounter no barriers impeding organisational creativity and innovation (Wua et al., 2021).

Chapter 6: Conclusion and Limitations

6.1 Introduction:

This chapter concludes the study with concluding remarks regarding the limitations and implications of transformational leadership as well as the limitations of the study. This chapter is presented in three sections: [1] summary of study results, [2] concluding remarks, and [3] limitations of the study. To reiterate, this study satisfies its main and specific objectives by answering the research questions and discussing such answers within the context of the aviation industry in Saudi Arabia. Toward this end, to answer its first research question, the study analyses the significance of the difference between mean respondents for (1) transformational leadership (TSL) and transactional leadership (TCL) and for (2) transformational leadership (TSL) and passive avoidant leadership (PAL). Furthermore, to answer the second, third, and fourth research questions, the study applies a typical protocol to analysing relationships with intervening mechanisms where [1] the study dependent variable of organisational innovation is regressed on the main independent variable of transformational leadership, [2] the study dependent variable of organisational innovation is regressed on both intervening variables of employee creativity and organisational culture, and [3] both intervening variables are regressed individually on the study main independent variable of transformational leadership.

6.2 Summary of the Study:

This study is divided into six chapters, references and appendixes. The first part of this study includes the background of the study, the significance of the study, the research aim and objectives and the research question. The research problem was that the previous researchers did not fill the research gap concerning the influence of leadership styles on innovation practices mainly in the aviation industry. For this reason, the present research has aimed to fill the research gap while focusing on the role of leadership in impacting organisational innovation in the civil aviation industry in the Kingdom of Saudi Arabia. So, this study aimed to answer the following questions:

1. What is the leadership style followed in the civil aviation industry in KSA?
2. What is the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA?

3. What is the extent to which the intervening mechanism of employee creativity mediates the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA?
4. What is the extent to which the intervening mechanism of organisational culture mediates the impact of organisational leadership on organisational innovation in the civil aviation industry in KSA?

Regarding the previous questions, this study tried to answer the questions by testing the following hypothesis:

H1: The impact of organisational leadership on organisational innovation is positive and significant in the KSA aviation industry.

H2: Employee creativity significantly mediates the impact of organisational leadership on organisational innovation in the KSA aviation industry.

H3: Organisational culture significantly mediates the impact of organisational leadership on organisational innovation in the KSA aviation industry.

Toward this end, this study is empirically concerned with documenting the impact of organisational leadership on organisational innovation in the aviation industry in Saudi Arabia. The study adheres to the traditional scientific paradigm and estimates parsimonious specifications instructed by the theoretical framework advanced in (Setiawan et al., 2021), and employs internally consistent and validated data collection instruments as evidenced by typical criteria and thresholds in the empirical literature. The results of the study show that perceptions of the employees in the aviation industry in Saudi Arabia with respect to the underlying leadership style of their organisation are consistent with transformational leadership. This is as opposed to other styles of organisational leadership including the transactional style and the passive-avoidant style. The study further shows that the positive and statistically significant impact of transformational leadership on organisational innovation is mediated by the levels of employee creativity and organisational culture. Applying a standard protocol of Baron and Kenny (1986) to empirical analysis with intervening mechanisms, the study reports that such mediation, though both well-pronounced and statistically significant at all traditional levels, is short of the full mediation criterion. This suggests that the mediating influences of employee creativity and organisational culture may be necessary but not sufficient conditions when channelling the impact of transformational leadership on organisational leadership. Moreover, given transformational leadership characteristics of idealised influence (attribute), idealised

influence (behaviour), inspirational motivation, intellectual stimulation, and idealised consideration, this study reports that the characteristic of inspirational motivation tends to drive organisational innovation the most in the KSA aviation industry, and this is followed by the characteristic of behavioural idealised influence. Throughout, the empirical analysis performed and reported in the study employed linear models that allowed for meaningfully measuring parameter estimates and testing them for statistical significance. The study also performed and reported robustness check analysis using PLS techniques. In this respect, the study reported a composite components analysis where the full measurement model is reduced to a reduced model where construct reliability and validity are satisfied as per the average variance explained criterion. Such a reduced measurement model is specified reflectively where the direction of the specific indirect effects starts from the explanatory variable of transformational leadership through the mediating mechanisms of employee creativity and organisational culture and into the study variable of organisational innovation. Besides the reduced reflective measurement model, structural, and bootstrapping models are also estimated to measure and test path coefficients, total indirect effects, and specific indirect effects. The outcomes of the PLS robustness check analysis are consistent with the covariance-based empirical results and provide intuition into the structural features of the study data. In particular, the structural results show that the attribute of idealised consideration tends to drive transformational leadership the most, and this is followed by intellectual stimulation and then inspirational motivation. By the same token, whereas the attribute of organisational experimentation tends to drive organisational innovation the most, the attribute of seeking new ideas drives employee creativity the most, and the attribute of information sharing drives organisational culture the most.

6.3 Concluding Remarks:

Though this study reports empirical evidence that transformational leadership has a positive and statistically significant impact on organisational innovation, the study concludes with remarks that may bring readers' attention to the limitations inherent in transformational leadership as a style of leadership. Perhaps the most pronounced limitation inherent in the practice of transformational leadership is its reliance on the influence and guidance of the leader. This can create a dependency on the leader's vision and charisma, potentially hindering the development of independent thinking, creativity, innovative problem-solving, and autonomous decision-making among

employees and followers (Asbari, 2021). Transformational leadership is often regarded as a style of leadership that is exceptionally demanding and taxes its practitioners with significant time and energy to inspire and motivate their employees and followers, where such a higher level of involvement might not be sustainable or feasible for leaders who have other responsibilities or limited resources (Chen et al., 2021). It follows that transformational leadership always encounters resistance to change due to the non-trivial possibility that employees may resist the transformative changes advocated by transformational leaders. This resistance can stem from fear of the unknown, reluctance to leave their comfort zones, or disagreement with the leader's vision (Crede et al., 2019). Furthermore, transformational leadership often suffers from a lack of focus and tends to prioritise the personal growth and development of followers, which might overshadow the need for achieving specific task-related goals and objectives while resulting in a lack of emphasis on task completion and performance metrics (Fuller et al., 2022). Along the same lines, transformational leadership may not be altogether compatible or suitable for highly regulated organisational environments (Islam et al., 20121). Finally, transformational leadership is often associated with egocentrism and overemphasis on charism due to leadership's immaculate standards, high expectations, and the admiration they repeatedly attract because of charismatic qualities (Fuller et al., 2022; Iqbal et al., 2022; Islam et al., 2021; Asbari et al., 2021).

In view of the preceding and irrespective of its inherent limitations, transformational leadership has several valuable features and implications that can positively impact employees and organisations (Abdulrazaq et al., 2020). For instance, transformational leaders inspire and motivate their followers by providing a compelling vision and purpose (Fuller et al., 2022). They communicate the importance of the work being done and create enthusiasm and passion among their team members (Braun et al., 2013). Transformational leadership invests in the development and full potential of their employees via coaching, mentoring, bolstering a culture of continuous learning, and provision of growth opportunities (Jaiswal and Dhar, 2015). Most importantly, transformational leadership strongly supports innovation and creativity within the organisation and among employees by encouraging diverse thinking, inviting new ideas, and creating a culture that embraces experimentation and learning from failure (Crede et al., 2019; Altunoğlu et al., 2018). Perhaps these attributes of transformational leadership coupled with its emphasis on positive organisational

culture, organisational performance, and productivity were greatly behind the empirical results reported in this study. Last but not least, transformational leadership entails several theoretical implications, the most critical of which is that of social exchange theory where transformational leadership engages employees based on the expectation of mutual benefits in the sense that leaders offer intellectual stimulation, individualised consideration, and inspirational motivation to their followers, who, in turn, reciprocate with increased commitment, loyalty, and effort (Coyle-Shapiro et al., 2018). In the context of the Saudi aviation industry, however, though employee creativity is driven by transformational leadership and has a positive impact on organisational innovation, such creativity tends to be conservatively exercised in an industry where strict predefined standards and minimal margins of errors dictate all principal activities (Baghdadi and Kishk, 2017).

6.4 Significance of Transformational leadership from with Saudi aviation:

Transformational leadership is highly significant within the Saudi aviation sector, especially as the industry undergoes a rapid transformation aligned with the Kingdom's ambitious Vision 2030 objectives (Ekore, 2020). Vision 2030 aims to diversify Saudi Arabia's economy, enhance its infrastructure, and position it as a global hub for trade, tourism, and business (Baghdadi & Kishk, 2017). Aviation plays a central role in these goals, and transformational leadership can be a key driver in shaping the industry's success. To begin with, transformational leadership is known for encouraging innovation and inspiring employees to think creatively and beyond the status quo. In the context of Saudi aviation, where rapid technological advancements and market shifts are occurring, this leadership style is essential (Aljohani, 2021). In this respect, the leadership at Saudi Arabian Airlines (Saudia) has been instrumental in embracing innovation by introducing modern technologies like artificial intelligence, automation, and digital ticketing systems to improve operational efficiency and the customer experience (Aljohani, 2021). Transformational leaders in aviation organisations encourage employees to embrace these new technologies and drive innovation across all levels of the organisation. In addition, transformational leaders inspire and motivate employees by creating a shared vision, fostering a positive and inclusive organisational culture, and empowering individuals to contribute to organisational success. In the Saudi aviation sector, leadership that supports creativity, inclusion, and collaboration is crucial to the overall success of the industry (Almahamid et al., 2021). At airports like King

Abdulaziz International Airport in Jeddah, transformational leadership promotes a culture of collaboration between various departments (security, ground services, customer service). This culture improves employee morale and operational efficiency, ensuring that aviation operations run smoothly and passengers receive high-quality service (. Moreover, the Saudi aviation sector must remain competitive on the global stage, and transformational leadership can play a pivotal role in this by encouraging bold, visionary strategies that enhance the Kingdom's aviation services (Tirth et al., 2020). In this vein, the General Authority of Civil Aviation (GACA) under transformational leadership has been focusing on improving Saudi Arabia's airport infrastructure, modernising air traffic management systems, and increasing international flight connectivity (Ekore et al., 2020). These leadership initiatives are part of the broader goal of positioning Saudi Arabia as a global aviation hub, thus increasing both tourism and business opportunities in the Kingdom. Furthermore, one of the key pillars of Vision 2030 is the diversification of Saudi Arabia's economy. Transformational leaders in the aviation sector are pivotal in driving this diversification through the development of both commercial and private aviation services (Aljohani, 2021). Toward this end, companies like Alpha Star Aviation, which focuses on private aviation services, are benefiting from transformational leadership that drives the growth of high-end luxury aviation services. This allows Saudi Arabia to diversify its aviation offerings and attract high-net-worth individuals and international business leaders to the Kingdom, aligning with Vision 2030's economic diversification goals (Baghdaid & Kishk, 2017).

In view of the preceding, transformational leadership is highly significant in the Saudi aviation sector because it aligns with the broader goals of Vision 2030, including economic diversification, global competitiveness, technological innovation, sustainability, and enhancing the passenger experience. Leaders who inspire their teams, embrace innovation, and foster a collaborative and creative culture will be essential in driving the success of Saudi Arabia's aviation sector, both domestically and internationally. Through visionary leadership, the aviation industry can thrive, ensuring long-term growth and aligning with the Kingdom's national goals.

6.5 Limitations of the Study:

The limitations of this study generally fall into three main categories: [1] limitations associated with the quantitative research design, [2] limitations associated with the theoretical framework of Setiawan et al. (2021), and [3] limitations associated with Likert-type Scales, Sample Size and The Theoretical Framework of Setiawan et al. (2021).

6.5.1 Limitations Associated with The Quantitative Research Design:

The results, conclusions, and recommendations reported by this study are greatly limited by its quantitative research design (see, e.g., Creswell, 1998). For instance, quantitative studies often focus on numerical data and measurable variables, which can limit the depth of understanding of the research topic of the relationship between organisational leadership and organisational innovation (Johnson and Christensen, 2004). Indeed, due to its primary concern with objectivism and empiricism, the quantitative research design may fall short of capturing the complexity and contextual factors governing the research problem (Coughlan et al., 2007). Quantitative studies like this one are often limited in scope and tend to rely on predefined measurements of the variables that do not necessarily capture or quantify the critical aspects of the object of measurement (Creswell, 1998). Along the same lines, quantitative studies including this current study can be prone to biases adversely affecting the validity and reliability of its findings due to various factors, such as sampling methods, measurement tools, and statistical analysis techniques (Johnson and Christensen, 2004).

6.5.2. Limitations Associated with The Theoretical Framework of Setiawan et al. (2021).

By critically reflecting on the research limitations associated with the theoretical framework of Setiawan et al. (2021), the rigour, relevance, and contribution of this study may be enhanced. Such limitations may impact the validity and generalisability of the findings of this study across the critical dimension of simply reducing the relationship between organisational leadership and organisational innovation into the mediating influences of organisational culture and employee creativity. In this concern, simplifying the complex and rather dynamic relationship between organisational leadership and organisational innovation statically into organisational culture and employee creativity tends to overlook a plethora of other mediating

influences that may be likewise or perhaps more critical. This greatly limits the scope of this study and constrains the researcher's ability to fully capture the complexity of the relationship between organisational leadership and organisational innovation in KSA aviation. Furthermore, given the inevitable absence of relevant explanatory influences due to the nature of the relationships specified by the theoretical framework, this study falls short of testing causal relationships or claiming global integration of its findings across the latitude of disciplines and research areas interested in the relationship between organisational leadership and organisational innovation.

6.5.3 Limitations Associated with Likert-type Scales, Sample Size and The Theoretical Framework of Setiawan et al. (2021).

This quantitative study is limited by the use of Likert-type scales (Jamieson, 2004). Though such scales are widely used in social science research to measure attitudes, perceptions, and behaviours, providing researchers with simplicity and ease of use, they are subject to several limitations that affect their validity and reliability (Grimm, 2010). For instance, in the context of this study, respondents from the Saudi aviation industry tended to avoid extreme categories, showing a tendency to select middle or neutral options as per a phenomenon referred to as central tendency bias (Chyung et al., 2017). Additionally, though this study reports statistically acceptable metrics for internal consistency of all questionnaire constructs, respondents from the Saudi aviation industry may have displayed consistent patterns regardless of item content, threatening the overall construct validity of the measurement (Weijters et al., 2010). Most importantly, Likert scales measure the degree of agreement but not the reasoning behind the response (Harzing, 2006). Such scales are often insufficient for exploring the “why” behind attitudes or behaviours, limiting the depth of understanding of the relationship between organisational innovation and organisational leadership in Saudi aviation (Clason & Dormody, 1994).

Another limitation of this study, significantly affecting the validity, generalisability, and interpretation of findings, is one related to the study sample employed. Though an authoritative sample size determination framework is applied in this study, the sample size solved for may still be responsible for reducing statistical power, increasing the likelihood of Type II errors and limiting the ability to detect true effects (Cohen, 1992). Such reduced power may also increase sampling variability, making estimates

less stable and less reliable (Bornstein, Jager, & Putnick, 2013). Moreover, since respondents from the Saudi aviation industry voluntarily chose to join this study, self-selection bias may occur, resulting in a sample that may possibly differ from the population of the study in terms of motivation, attitudes, or behaviours (Heckman, 1979). Furthermore, respondents from the Saudi aviation industry included in this study still define a set of homogeneous participants who may fail to capture the diversity necessary to explore variation in outcomes (Cheung et al., 2011). This can obscure subgroup differences and restrict the richness of the data (Henrich, Heine, & Norenzayan, 2010). Toward this end, this study included respondents from two organisations, namely GACA and Alpha Star. Though such respondents represent both the public and private aviation sectors in Saudi Arabia, private firms other than Alpha Starr were not included in the study. This is due to the fact that only Alpha Starr has agreed to participate in this research.

Most critically, this study is limited by the theoretical framework of Setiawan et al. (2021). In particular, though this study is interested in linking organisational leadership to organisational innovation in Saudi aviation via the mediating mechanisms of employee creativity and organisational culture, the theoretical framework employed in this study fails to capture the difference between organisational culture and internal social capital. In this respect and since organisational culture and internal social capital are inherently two different constructs, this study recognises this limitation irrespective of several studies claiming otherwise in the extant literature (e.g., Mcgraw, 2022; virgiawan et al., 2021; Mitrovic et al., 2019; Zheng et al., 2019; Maamari & Saheb, 2018; Ahn et al., 2017; Chen et al., 2016; Tsai, 2011).

6.6 Future Research Recommendations:

Research on the impact of organisational leadership on organisational innovation in the aviation industry is a promising field, as the sector constantly faces technological advances, regulatory changes, and evolving customer demands. Future research on the impact of organisational leadership on innovation in the aviation industry can offer valuable insights that will help companies better align their leadership strategies with innovation goals. By focusing on leadership styles, organisational culture, external collaboration, regulatory compliance, and sustainability, researchers can deepen the understanding of how leadership drives innovation in this dynamic, high-

stakes industry. To begin with, future research may examine the Influence of Leadership Styles on Innovation Outcomes to investigate how different leadership styles (e.g., transformational, transactional, servant, democratic) specifically influence innovation outcomes in the aviation industry. In this respect, understanding how various leadership approaches impact creativity, idea generation, and innovation within aviation firms can help identify the most effective leadership styles for driving innovation. Moreover, future research may also study the role of Leadership in Promoting Organisational Culture for Innovation to explore how organisational leadership shapes the organisational culture that supports or stifles innovation in the aviation industry. Here, the rationale is that leadership plays a critical role in shaping organisational culture, which in turn can affect innovation where research could identify how leaders encourage a culture of risk-taking, collaboration, and continuous improvement, all of which are crucial for innovation. By the same token, future research is recommended to empirically investigate the impact of Leadership on Cross-functional Collaboration for Innovation. In this vein, the rationale is that innovation in the aviation industry. Toward this end, leadership and Innovation in Response to Regulatory Changes is also an interesting area for future research. Here researchers may investigate how organisational leadership influences innovation in response to evolving aviation regulations and safety standards given the fact that the aviation industry is heavily regulated, and leaders must balance innovation with compliance. Research could also explore how leaders can effectively guide their organisations to innovate while adhering to strict regulatory frameworks.

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Appendixes

Appendix 1: **Ethics Approval**:

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University of Central Lancashire
Preston PR1 2HE
01772 201201
uclan.ac.uk

14th September 2023

David Bamber / Ahmed Abdu Kariri
School of Business
University of Central Lancashire

Dear David and Ahmed,

Re: BAHSS2 Ethics Panel Application
Unique Reference Number: BAHSS2 01080

The BAHSS2 Ethics Review Panel has granted approval of your proposal application, 'The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia'.

Approval is granted up to the end of project date*.

It is your responsibility to ensure that

- the project is carried out in line with the information provided in the forms you have submitted
- you regularly re-consider the ethical issues that may be raised in generating and analysing your data
- any proposed amendments/changes to the project are raised with, and approved, by Committee
- you notify ethicsinfo@uclan.ac.uk if the end date changes or the project does not start
- serious adverse events that occur from the project are reported to Panel
- a closure report is submitted to complete the ethics governance procedures (Existing paperwork can be used for this purposes e.g. funder's end of grant report; abstract for student award or NRES final report. If none of these are available use e-Ethics Closure Report Proforma).

Yours sincerely,

Richard Davies
Deputy Vice-Chair
BAHSS2 Ethics Panel

* for research degree students this will be the final lapse date

NB - Ethical approval is contingent on any health and safety checklists having been completed, and necessary approvals gained.

Appendix 2: Anonymous Online Survey / Questionnaire:

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Participant Information Sheet

The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia.

Information Sheet

27 Jan 2023

I am Ahmed, a Doctor of Business Administration researcher at the University of Central Lancashire in the UK. Currently, I'm conducting my graduation research which aims to explore (The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia), and request you to join my project by completing the following Questionnaire. It may take about 15 minutes to complete it and will keep your responses anonymous and confidential.

Before you decide if you wish to take part, it is important that you understand why the research is being done and what it will involve. Please take time to read the following information carefully and if you would like more information or if there is anything that you do not understand, please contact us using the contact information below. Please also feel free to discuss with others if you wish.

Thank you for reading this.

What is the purpose of the study?

The study is being undertaken by Ahmed Kariri, in the School of Business and Enterprise at the University of Central Lancashire.

The main purpose of the study is to make some questionnaires regarding The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia.

Why have I been invited to take part?

You have been participating in this study by responding to this questionnaire relating to exploring The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia; nonetheless, such information would be gathered in the questionnaire. This is the reason you have been invited.

What will happen if I take part?

The study involves taking part in an online questionnaire, which will be completed anonymously. The questionnaire asks 31 questions on The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia and should take approximately 5 minutes to complete, depending on how much information you choose to share. Before you complete the questionnaire, you will be asked to read and consent to a series of statements before proceeding.

Do I have to take part?

No, it is entirely up to you if you want to take part or not. Participation in the study is voluntary. If you do decide to take part, You will be able to withdraw at any point for any reason before submitting your answers by closing the questionnaire browser.

How will my data be used?

We will not collect or process any personal data. All data you provide will be completely anonymous, which means that no-one could use any reasonable means to identify you from the data.

The answers that you provide will only be accessible to the research team at UCLan. The data will be used to explore The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia and will be written up to form part of a dissertation for Doctor of business administration (DBA).

The answers you provide will be held securely and will be password encrypted and stored in a password-protected electronic file on the UCLan's secure servers.

The responses will be kept for 7 years and then destroyed, in line with University policy.

The University processes personal data as part of its research and teaching activities in accordance with the lawful basis of 'public task', and in accordance with the University's purpose of "advancing education, learning and research for the public benefit".

Under UK data protection legislation, the University acts as the Data Controller for personal data collected as part of the University's research. The University privacy notice for research participants can be found on the attached link.
https://www.uclan.ac.uk/data_protection/privacy-notice-research-participants.php

Further information on how your data will be used can be found in the table below.

How will my data be collected?	*Via answering the online questionnaire.*
How will my data be stored?	*The data will be stored in the researcher's computer with private password.*
How long will my data be stored for?	*Until the finish the researchers' DBA degree and the Viva examination.*
What measures are in place to protect the security and confidentiality of my data?	*The data will be store on the researchers' computer protected with a Private Password to access to it.*
Will my data be anonymised?	*The data will be anonymised and no one can identify you. Also, You will have a consent form before start answering the questionnaire.*
How will my data be used?	*Data from the completed Questionnaire about leadership styles and organisation innovation will be used to understand how leadership styles impact on organisational innovation.*
Who will have access to my data?	*The researcher, his supervisors and examiners will have access to the data if needed.*
Will my data be archived for use in other research projects in the future?	*No.*
How will my data be destroyed?	*After Completion of the DBA degree and the Viva examination.*

Are there any risks in taking part?

There are no perceived risks or disadvantages involved.

Are there any benefits from taking part?

Yes, behind every research there must have some benefits, otherwise, this is a waste of time. In the research from the survey, it could be known about the impact of leadership styles in organisational innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia.

What will happen to the results of the study?

This research and the survey will lead to a greater understanding of The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia and the results of the study will be written for a Doctor of business administration (DBA) degree.

What will happen if I want to stop taking part?

As a volunteer, you are welcome to end your participation at any time for any reason until the questionnaire is submitted after which the data will be anonymised and the researcher will then be unable to withdraw the data from the study.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting me or my supervisors Dr. David Bamber dbamber1@uclan.ac.uk Or Dr. Kalama Adefe kadefe@uclan.ac.uk. and they will help.

If you remain unhappy, or have a complaint which you feel you cannot come to us with, then please contact the UKs Ethics, Integrity and Governance Unit via email at the OfficerForEthics@uclan.ac.uk

The University strives to maintain the highest standards of rigour in the processing of your data. However, if you have any concerns about the way in which the University processes your personal data, it is important that you are aware of your right to lodge a complaint with the Information Commissioner's Office by calling 0303 123 1113.

Who can I contact if I have further questions?

You can contact the researcher: AAAKariri@uclan.ac.uk Or research team dbamber1@uclan.ac.uk Or Dr. Kalama Adefe kadefe@uclan.ac.uk School of business and Enterprise, UCLan, Preston, PR1 2HE, GR152.

Consent

I confirm that I have read and understood the information provided on the information page of this questionnaire for The Role of Leadership in Influencing Organisational Innovation in The Civil Aviation Industry in The Kingdom of Saudi Arabia.

Yes No

I understand that taking part in the study involves completing an anonymous 31-questions survey.

Yes No

I understand that my participation is voluntary and I am free to stop at any time, until I submit the questionnaire by clicking on the 'Submit' button on the last page of the questionnaire.

Yes No

I understand that the information I provide will be held securely and in line with data protection requirements at the University of Central Lancashire.

Yes No

I agree to take part in this study

Yes No

If answer yes to all the consent statements, the questionnaire questions should be provided.

Questionnaire

	Demographic Questions					
1	Gender	Male		Female		
2	How old are you?	1. 18-29 years.	2. 30-45 years.		3. 46 years and above.	
3	What is your Education?	1. Undergraduate (Diploma and Bachelor).		2. Postgraduate (Master and Doctor).		
	For each item below please circle the number which BEST applies to your organisation					
	Transformational Leadership Style	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
4	Leaders put the needs of the organisation ahead of their own interests.	1	2	3	4	5
5	Leaders in this organisation take into account the moral and ethical ramifications of decisions.	1	2	3	4	5
6	Leaders express optimism about the organisation's future.	1	2	3	4	5
7	Leaders re-evaluate fundamental presumptions to determine whether they are applicable to this organisation.	1	2	3	4	5
8	In this organisation, leaders support others in enhancing their strengths.	1	2	3	4	5
	Transactional Leadership Style	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
9	Leaders are clear about the rewards that will be given When performance goals are met in this organisation.	1	2	3	4	5
10	Leaders in this organisation keep a follow-up of all errors.	1	2	3	4	5
11	Leaders in this organisation make it clear what is expected of followers.	1	2	3	4	5
12	Leaders in this organisation are transparent about the benefits that will be given to staff members who perform at the expected levels.	1	2	3	4	5
13	Leaders keep an eye out for potential issues during task execution and address them to maintain performance standards.	1	2	3	4	5
	Passive/Avoidant Leadership Styles	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
14	In this organisation, leaders do not wait until something goes wrong to act.	1	2	3	4	5
15	Leaders do not delay making decisions when a problem is severe enough to do corrective action.	1	2	3	4	5
16	Leaders in this organisation implement changes when something goes wrong.	1	2	3	4	5
17	In this organisation, leaders answering urgent queries immediately.	1	2	3	4	5
18	In this organisation, when serious issues happened Leaders made decisions straight away.	1	2	3	4	5

	Organisational Innovation: Sensing user needs	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
19	Differentiating between user groups and market segments is a strength of our organisation.	1	2	3	4	5
	Organisational Innovation: Conceptualising	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
20	This organisation is inventive in coming up with thoughts for modern benefit concepts.	1	2	3	4	5
21	Our organisation tries out new ideas for services.	1	2	3	4	5
	Organisational Innovation: Coproducing and orchestrating	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
22	Our organisation works with other organisations to help us get better or provide new services.	1	2	3	4	5
23	The ability of our organisation to effectively manage multi-party service innovation activities.	1	2	3	4	5
	Employee Creativity:	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
24	I feel that I am good at generating novel ideas.	1	2	3	4	5
25	I have confidence in my ability to solve problems creatively	1	2	3	4	5
26	I have a passion for further developing the ideas of others.	1	2	3	4	5
27	I feel that I am good at adopting new methods at work.	1	2	3	4	5
	Organisation culture:	**Never**	**Rarely**	**Sometimes**	**Frequently**	**Always**
28	In our company, employees are actively engaged in mutual learning	1	2	3	4	5
29	In our company, employees have trusting relationships.	1	2	3	4	5
30	In our company, employees are collaborative.	1	2	3	4	5
31	Our company shares its norms, values, and information.	1	2	3	4	5

By selecting ‘Submit’ you are consenting to participate in this study, as it is described in the participant information sheet.

[**Submit Button**]

Thank you very much for your participation

Best Wishes,

Capt: Ahmed Kariri.

Lancashire School of Business and Enterprise

E-mail: AAAKariri@uclan.ac.uk

Appendix 3: Questionnaire Items and MLQ Related Item Numbers.

	Questionnaire Items and MLQ Related Item Numbers	
	Transformational Leadership Style	**MLQ (Avolio and Bass, 2000) Item Number**
4	Leaders put the needs of the organisation ahead of their own interests.	18
5	Leaders in this organisation take into account the moral and ethical ramifications of decisions.	6
6	Leaders express optimism about the organisation's future.	9
7	Leaders re-evaluate fundamental presumptions to determine whether they are applicable to this organisation.	2
8	In this organisation, leaders support others in enhancing their strengths.	31
	Transactional Leadership Style	**MLQ (Avolio and Bass, 2000) Item Number**
9	Leaders are clear about the rewards that will be given When performance goals are met in this organisation.	16
10	Leaders in this organisation keep a follow-up of all errors.	24
11	Leaders in this organisation make it clear what is expected of followers.	35
12	Leaders in this organisation are transparent about the benefits that will be given to staff members who perform at the expected levels.	11
13	Leaders keep an eye out for potential issues during task execution and address them to maintain performance standards.	4
	Passive/Avoidant Leadership Styles	**MLQ (Avolio and Bass, 2000) Item Number**
14	In this organisation, leaders do not wait until something goes wrong to act.	12
15	Leaders do not delay making decisions when a problem is severe enough to do corrective action.	3
16	Leaders in this organisation implement changes when something goes wrong.	12
17	In this organisation, leaders answering urgent queries immediately.	28
18	In this organisation, when serious issues happened Leaders made decisions straight away.	33

Custom-designed questionnaire with items adapted from the corresponding items of the MLQ scale of Avolio and Bass (2000).

Appendix 4: Custom-designed Questionnaire with items adapted from the corresponding items from various sources.

	Questionnaire Items in their sub-scales	Source Items	Original Sources
	Organisational Innovation: Sensing user needs		
19	Differentiating between user groups and market segments is a strength of our organisation.	1, 2, 3, 4, 5, 6	Differentiating User Groups synthesised from QCAQ* IV
	Organisational Innovation: Conceptualising		
20	This organisation is inventive in coming up with thoughts for modern benefit concepts.	1	Lewis-Beck (1977)
21	Our organisation tries out new ideas for services.	2	
	Organisational Innovation: Co-producing and orchestrating		
22	Our organisation works with other organisations to help us get better or provide new services.	1	QCAQ* VI
23	The ability of our organisation to effectively manage multi-party service innovation activities.	4	QCAQ* VI
	Employee Creativity		
24	I feel that I am good at generating novel ideas.	1	Peng et al.
25	I have confidence in my ability to solve problems creatively	3, 4, 5	Peng et al.
26	I have a passion for further developing the ideas of others.	2	Peng et al.
27	I feel that I am good at adopting new methods at work.	6	Peng et al.
	Organisation Culture		
28	In our company, employees are actively engaged in mutual learning	2	QCAQ III
29	In our company, employees have trusting relationships.	1, 2, 3, 4, 5, 6	Trusting relationships synthesised from QCAQ* III
30	In our company, employees are collaborative.	4	QCAQ* III
31	Our company shares its norms, values, and information.	1, 2, 3, 4, 5, 6	Shared values synethsised from all QCAQ* III items