



**A Cross-Sectional Study on Corporate
Governance and Leadership Challenges
in Small and Medium Enterprises:
Overcoming Barriers to Design Thinking
and Innovation Management**

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Declaration

I, **NG BOON WAH**, hereby declare that this thesis titled, “**A Cross-Sectional Study on Corporate Governance and Leadership Challenges in Small, Medium Enterprises: Overcoming Barriers to Design Thinking and Innovation Management**” is the outcome of my own study undertaken under the guidance of **DR SARANYA DESIKAN** at **EAST BRIDGE UNIVERSITY**. I also affirm that the work presented in this document has not been previously published or submitted in whole or in part, for any other degree, diploma or certificate awarded by this or any other university. I have duly acknowledged all the sources used by me in preparation of this thesis.



NG BOON WAH

13 May 2025

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List of Abbreviations

ANOVA	Analysis of Variance
CEO	Chief Executive Officer
DTIM	Design Thinking and Innovation Management
OECD	Organisation for Economic Co-operation and Development
RBV	Resource-Based View
SIR	Strategic Innovation Reviews
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science

Abstract

This dissertation investigates the intersection of corporate governance, leadership, and innovation management in Small and Medium Enterprises (“SMEs”), with a particular focus on overcoming barriers to design thinking. SMEs are recognized globally as crucial engines of economic growth and employment, yet they face distinctive challenges related to governance structures, leadership approaches, and limited resources, which can impede sustained innovation and adaptability.

Adopting a mixed-methods approach, this research draws on both quantitative data from surveys of 96 SMEs leaders across Malaysia, Singapore, Thailand, Indonesia, and India, and qualitative insights from in-depth interviews. The sample includes a diversity of industries - retail, manufacturing, technology, and services, capturing the heterogeneous nature of SMEs environments in Southeast and South Asia. The study is grounded in three theoretical frameworks: Agency Theory, Resource-Based View (“RBV”), and Stakeholder Theory, each offering unique perspectives on how internal and external factors shape SMEs governance and innovation.

Key findings reveal that effective leadership, especially visionary and transparent communication, is fundamental to fostering a culture of innovation. Leadership styles that encourage creative problem-solving, cross-functional collaboration, and continuous learning are positively correlated with successful adoption of design thinking and innovation management. The research further highlights the importance of diverse ownership structures and inclusive board compositions, which contribute to more dynamic decision-making and greater openness to risk-taking and experimentation. Nevertheless, a significant proportion of SMEs still operate under centralised, owner-driven models, which can restrict employee empowerment and stifle innovative thinking.

This study bridges critical gaps in existing literature by providing empirical evidence on the governance and leadership factors that enable or inhibit innovation in SMEs. It offers practical recommendations for SMEs leaders and policymakers, including the need for leadership development programs, greater stakeholder engagement, investment in training for design thinking, and more frequent strategic innovation reviews. Embedding innovation within governance frameworks is shown to be essential for SMEs seeking resilience and competitiveness in fast-evolving markets.

Future research should explore the longitudinal effects of governance and leadership transitions, sector-specific innovation barriers, and the influence of digital transformation on SMEs innovation capacity. Overall, this dissertation contributes to both theoretical understanding and practical strategies for building adaptive, innovative, and sustainable SMEs.

Keywords: SMEs, Corporate Governance, Leadership, Design Thinking, Innovation Management, Southeast Asia, Stakeholder Engagement

Chapter One: Introduction

1.1 Background of the Study

Small- and Medium- size Enterprises (“SMEs”) can be described as young, growing businesses that play a crucial role in creating employment, new products, goods, and services, and economic growth in most economies globally. The Organisation for Economic Co-operation and Development (OECD, 2023) opined that SMEs contribute about 60% of total employment and between 50% and 60% of total value addition in most countries. SMEs play a crucial role in the development and growth of the economy, but they experience many corporate governance and leadership issues that render them inadequate models for a constantly evolving competitive environment (Kwaning et al., 2024; Hughes & Mustafa, 2017).

Thus, there are certain peculiarities of the SMEs and their management, which are primary prerequisites for organisational inefficiencies; the first of these is the relatively low levels of development of the corporate governance systems usually available to these firms; this means that SMEs are inherently less effective in decision-taking and strategy formation than more fully-formed and large corporations (Chawla, 2020). This work focuses on corporate governance and leadership factors that define SMEs innovation limitations. This study highlights the role of design thinking and innovation management as agents of change in SMEs.

The idea of corporate governance would ordinarily focus on the system, controls, standards, and mechanisms in charge of holding organisations accountable and promoting openness and good corporate conduct (Tricker, 2022). However, when the concept is looked at from the perspective of SMEs, there is highly dependent on the ownership structures, and is uniquely linked to leadership (Safón & Iborra, 2023).

As compared to large firms with the distributed structures of boards of directors and clear separation of management roles, the excess of SMEs tends to have strong decision-making centralisation from owners or key individuals (Nguyen & Truong, 2022). On the other hand, it assists the organisation to be flexible and draw conclusions promptly thus becoming a real plus. But it also raises questions concerning where accountability for realising change initiatives is located and how such practices are integrated.

Effective management establishes the environment enabling diverging and original thinking and personal or team risk-taking, which are the two major design thinking and innovation management concepts (Brown, 2009). SMEs also resonate with the design thinking approach that is holistic and centered and that employs an iterative problem-solving process (Liedtka, 2020). Similarly, innovation management - the general planning, development, and implementation of ideas or something new also assists SMEs to sustain their competitiveness in emerging economies. However, these practices may encounter the following challenges; limited resource, rigid structure of the organisation, and no clear direction. The present study plays a significant part in processes that underpin organisational culture and innovation in SMEs.

1.2 Problem Statement

The application of design thinking and innovative management for increasing the performance of SMEs establishments involves two approaches. These two approaches are widely recognised worldwide; however, SMEs employers frequently meet potential difficulties in adopting the approaches into their corporate governance and leadership systems. Turskis & Šniokienė, (2024) pointed out that more than 70% of SMEs in developing economies view governance-related challenges as a source of innovation. These fields of concern are as follows: The board members and directors' poor professional skills; the usage of rational models solely in decision-making; the absence of change at the top managerial level. These challenges are again backed by environmental variables such as unstable markets, increased regulation and fast technological advancement (Κυρτσίδου, 2024).

To some extent, all of these challenges call for an understanding of how corporate governance systems combine with leadership and management actions in SMEs. For example, the roles that distinct ownership and boards play in affecting attitudes towards innovative practices are yet unknown (Amoah, 2023). In the same vein, research on the part played by leadership styles in either promoting or discouraging the culture for innovation deserves further study. In doing so, this study aims to fill these gaps by investigating the enablers and barriers of design thinking and innovation management in SMEs while focusing on the roles of corporate governance and leadership.

1.3 Aims and Objectives

The goals of this research are as follows: the main research question of this study is to assess the effectiveness of corporate governance and leadership on innovation and design thinking among SMEs. In this respect, the research aims to define possible challenges to the implementation of the innovation management practices' framework and outline recommendations that would unlock these challenges to increase SMEs development and competitive advantages.

1.3.1 Objectives

1. To assess the influence of leadership styles on the adoption and effectiveness of design thinking and innovation management in SMEs.
2. To evaluate the role of ownership structures and board compositions in shaping governance practices and fostering innovative environments within SMEs.
3. To identify the key barriers SMEs face in integrating design thinking and innovation into their governance and leadership frameworks.

1.4 Research Questions

This study provides actionable insights into overcoming barriers to design thinking and innovation management in SMEs by addressing the following research questions:

1. How do SMEs' leadership styles influence the adoption and success of design thinking and innovation management practices?
2. How do ownership structures and board compositions in SMEs affect their openness to adopting design thinking and innovation strategies?
3. What best practices can SMEs adopt to overcome common barriers to implementing design thinking and innovation management in their corporate governance and leadership models?

1.5 Significance of the Study

The contribution of this research fulfils the existing research gap by establishing directions for enhancing relationships between corporate governance and leadership practices with innovation for the SMEs. Although the literature on corporate governance relative to large organisations is well developed, limited studies have been done specifically on SMEs (Mazzarol, 2020). Furthermore, current theoretical instruments frequently do not take into consideration specific features of SMEs, namely their lack of resources, rather organic organisational structures, and leader-centric model of management. This research thus uses the elements of governance, leadership, and innovation management in order to understand the various influencing factors for SMEs' performance comprehensively.

Additionally, this emphasis in the study on design thinking and innovation management corresponds to the rising interest in organisations' global orientation towards agility, creativity, and customers as the key vectors of competitive advantage (Johansson-Sköldberg et al., 2020). When starting, SMEs face more risks and uncertainties than ever; flexibility and creativity become paramount. Unlike other research works that only amplify the problems that may be prevalent within SMEs, this work also provides information on how improvement in governance and leadership can be improved for better practices through innovation.

1.6 Structure of the Thesis

This thesis is structured as follows: Chapter one begins with an introduction that provides background on the significant of SMEs in economic growth and the governance and leadership challenges they face in fostering innovation. It outlines the research problem, emphasising barriers such as rigid structures, leadership limitations, and external environmental factors. The study aims to explore SMEs, defining key research questions and objectives. Chapter two presents a literature review on corporate governance, leadership, design thinking, and innovation management for SMEs, based on theoretical frameworks, including Agency Theory, Resource-Based View (“RBV”), and Stakeholder Theory. Chapter three details the research methods, including data collection and analysis techniques. Chapter four analyses SMEs leadership structures, ownership models, and governance practices, revealing that while leadership plays a critical role in fostering innovation, strategic innovation reviews are often infrequent. Financial constraints, rigid organisational structures, and resistance to change emerged as significant barriers. Chapter five synthesises the findings, reinforcing the idea that leadership and governance structures impact innovation while also highlighting gaps in implementation. The study contributes to both theory and practice by emphasising the need for diverse governance models, leadership-driven change, and more frequent strategic innovation reviews for SMEs leaders and policymakers. Finally, Chapter six provides a conclusion that summarises key insights, affirming that leadership communication, governance diversity, and structured innovation reviews are essential for SMEs innovation. It also outlines future research, including longitudinal studies on leadership transitions, sector-specific innovation challenges, and the role of digital transformation in SMEs governance.

1.7 Summary of Chapter One

Bridging between corporate governance, leadership, and innovation offers a key research lens for SMEs to address current obstacles and exploit current opportunities. Consequently, through emphasising design thinking and innovation management, this study will suggest the way for the SMEs to eliminate the barriers and improve their governance and leadership practices. The knowledge created during this study may be beneficial to the theoretical and practical advancements in the development and management of innovation and growth among SMEs. This study was grounded in three key theoretical perspectives; Agency Theory (Jensen & Meckling, 1976) – It explored conflicts of interest between SMEs owners and managers, emphasising the role of governance structures in mitigating inefficiencies. RBV Theory (Barney, 1991) – It highlighted the strategic importance of internal resources, including leadership and innovation capabilities, in sustaining competitive advantage. Stakeholder Theory (Freeman, 1984) – This theory emphasised the role of diverse stakeholders in shaping governance, leadership, and innovation strategies within SMEs.

Chapter Two: Literature Review

2.1 Introduction

This chapter undertakes a structured narrative literature review, integrating scholarly discourse on corporate governance, leadership practices, and innovation management within SMEs. The review draws upon a wide spectrum of academic and professional sources, including peer-reviewed journal articles, academic texts, and industry reports. Search engines and academic databases such as Google Scholar, Scopus, Web of Science, and EBSCOhost were systematically utilised to identify relevant literature. The scope of the review spans from foundational studies published as early as 1976 to more contemporary contributions up to 2024, ensuring a comprehensive evaluation of both theoretical underpinnings and emergent developments.

The chapter systematically examines prior studies concerning corporate governance challenges, leadership dynamics, the adoption of design thinking, and the execution of innovation practices in SMEs. As critical contributors to employment and economic output - comprising 90% of global businesses and employing over half the global workforce (OECD, 2023) - SMEs nonetheless encounter a distinct set of governance and leadership constraints that may impede strategic agility and creative growth (Gunjati & Adake, 2020).

This review is framed through the lens of three foundational theoretical perspectives - Agency Theory, the RBV, and Stakeholder Theory - to explore how governance structures and leadership systems interact to shape innovation capacity within SMEs (Jensen & Meckling, 1976; Barney, 1991; Freeman, 1984). These frameworks offer critical insight into how SMEs might leverage internal competencies and external stakeholder relationships to enhance innovation and remain competitive.

In addressing the core research questions underpinning this investigation, the literature is critically assessed to identify existing strengths and gaps. A notable deficiency within current research is the disproportionate emphasis on large enterprises, with minimal attention afforded to SMEs - entities that differ significantly in their governance arrangements, resource capabilities, and managerial styles (Mazzarol & Reboud, 2020). This chapter, therefore, seeks to consolidate existing insights into SMEs-specific governance and innovation challenges and to delineate the theoretical justification for examining how governance and leadership configurations influence innovation outcomes. In doing so, it aims to contribute to the broader academic discourse and inform practical interventions that support SMEs growth and adaptability in dynamic markets.

2.2 Theoretical Framework

2.2.1 Agency Theory

Agency theory explained by Jensen and Meckling (1976) looks at conflicts that exist between the owners or shareholders on one hand and managers or executives on the other hand in an organisation. Based on the following key assumptions the agency theory believes that managers who are responsible for managing the ordinary operations of a business instead of directing their effort towards the owners may end up rewarding themselves, thus being a threat to inefficiencies (Panda & Leepsa, 2017). Waste of resources and making wrong choices. This divergence in goals leads to an agency problem in that agents use information gaps as a way of working towards their own objectives, at the expense of the shareholders (Panda & Leepsa, 2017). When applied to SMEs, agency theory implications deviate from those of large firms, given that ownership is frequently closely connected with management. Many SMEs are owner-managed, and therefore the owners are often the same managers, and this eliminates the conventional agency problems (Gunjati & Adake, 2020). Nonetheless, as the SMEs develop, get funded from outside, and involve non-family managers or other outside stakeholders, the risk of agency issues arises. Large-scale SMEs are also likely to face the problem of governance, especially in situations where key management decisions rest with a few directors, thus imposing an excellent chance of self-interested or prejudiced choices.

Agency theory is highly relevant to the analysis of the governance processes within SMEs for this particular investigation. This feature draws attention to the structural risks that appear accompanied by the lack of proper functioning of formal governance structures in SMEs. According to Kwaning et al. (2024), it is evident that many SMEs operate with little formal supervision with an emphasis on the owner's discretion that may have an unforeseen negative impact on innovative and growth

processes. The best way for SMEs to address agency risks is to initiate the use of governance structures that make the activity of the firm more efficient, including advisory boards, independent directors, or external audits. Policies of such governance structures promote innovation by allowing many voices and decentralising top authority.

Agency theory highlights the responsibility of the SMEs Advisory boards or hiring outside consultants represent efficient restraints upon managerial actions while improving corporate governance. The implementation of this form of decision-making is not without challenges, especially in developing nations where SMEs are bound to have some of the following major challenges: Agency problems are also specific to leadership succession processes that are characterised by differences in the strategic orientations of new leaders and founders. SMEs need to make the alignment process as clear as possible in order to guarantee smooth leadership succession and protect the firm's long-term innovation plans. The subsequent sections show how the theoretical foundations from agency theory help SMEs deal with growth challenges, minimise conflict, and foster sustainable growth.

2.2.2 Resource-Based View (“RBV”) Theory

RBV theory of the firm maintains the strategic managerial notion that the sustained competitive advantage of a firm occurs through efficient acquisition, development, and deployment of resources (Barney, 1991). These assets could be either physical or non-physical; they should be valuable, rare, inimitable and non-substitutable this refers to the VRIN model. One fact that may be noteworthy is that RBV is applicable to SMEs most of the time because such companies have limited access to resources as compared to their bigger counterparts (Lubis, 2022; Stank et al., 2017). The theory forms the basis for the argument as to why internal resources such as human resource, innovation capital and leadership should be used when under competitive pressures.

Concerning RBV, this study demonstrates where and how SMEs can achieve better resource productivity by applying techniques like DTI, as identified by Liedtka (2020). Design thinking allows the SMEs to promote innovation and efficiency and produce solutions in line with the market demands. This coincides with the primary research objective of this study to determine how SMEs leverage internal resources to spur innovation, a gap that has not been well addressed in prior studies under the resource-based view and design thinking paradigm.

Empirical research by Radulovich et al. (2018) shows that an issue that stands out in the current literature is the lack of information on how intangible resources of SMEs are created, specifically leadership expertise, employee creativity, and organisational culture that are foundational to innovation. Functional requirements, which are at the centre of RBV, also support the idea of generating internal resources, as well as purchasing resources from outside (Upadhaya et al., 2018). This study focuses on the examination of internal and external resource-optimising strategies.

RBV places organisational culture into the fold of strategic assets aimed at developing innovation and adaptiveness. SMEs that encourage employees' creativity with the support of adequate leadership and governance models will better attain sustainable competitive advantages (Do et al., 2022). This research aims at establishing how the derivation of such a culture can further improve SMEs' readiness, flexibility, and sustainability. Combining RBV with design thinking, the study goals are as follows: The research help SMEs to be effective in competitive markets.

2.2.3 Stakeholder Theory

Freeman (1984) developed a stakeholder theory that can be attributed to organisations' management duty to all stakeholders and not only the shareholders. Employee, consumers, suppliers, shareholders, community, authorities, etc., are often assessed as being the key players who influence organisational performances (Mahajan et al., 2023). These stakeholders are directly involved because the operations of the SMEs are largely localised and personal, and the feedback is often instant.

The use of stakeholder theory highlights the significance of organisational inclusion for the SMEs as they adopt effective stakeholder consideration in their governance structures. While the big business might take a long time to have a good relationship with their customers, the SMEs, due to the close interaction with the consumers, can easily build a good relationship with their customers (Kivits & Sawang, 2021). This study aims at establishing the impact of stakeholder engagement on the SMEs governance structures, especially on the issue of innovation and stakeholder needs and expectations. Thus, by adopting both these views, it comes up with new approaches that are more effective and better fit for the purpose of helping SMEs improve their competitive standing.

One important research issue remains relatively underexplored in current scholarship: how SMEs manage multiple stakeholder demands in the context of encouraging/promoting innovation. These conflicts can be addressed by designing appropriate mechanisms of engagement with stakeholders that will foster appropriate modes of governance, in view of the need for accountability as well as comparable and balanced benefits (Jones et al., 2017). This paper aims to interrogate how such frameworks influence the nature of design thinking and innovation management practices with a focus on goal accomplishment in organisations.

Furthermore, stakeholder theory gets to value the strategies of partnership and collaboration in improving access to resources and sharing of knowledge. When managing relationships with stakeholders, the SMEs gain more understanding of the client needs and enhance the solution development process and innovation to improve society's quality of life (Jones et al., 2018). This approach enhances the firm's competitiveness and is consistent with the general development objectives that are sustainable and inclusive (Freeman & Phillips, 2021). Lastly, this work intends to offer practical recommendations as to how stakeholder theory may be implemented to enhance SMEs governance and innovation in turbulent environments.

2.3 Literature Review by Research Topics

2.3.1 *Leadership Styles and Innovation in SMEs*

Leadership plays a pivotal role in shaping the innovation agenda within SMEs. The leadership style adopted within an enterprise influences not only strategic decision-making but also the cultural receptiveness to change and experimentation. Leso and Ghezzi (2023) argue that effective leaders foster environments conducive to creativity, agility, and long-term adaptability - qualities essential to sustaining innovation. Transformational leadership, characterised by vision communication, intellectual stimulation, and inspirational motivation, is particularly salient in this context (Amoah, 2023).

In high-performing SMEs, leadership has been shown to directly facilitate design thinking adoption by promoting open dialogue, iterative learning, and user-centric problem solving (Bessant & Tidd, 2018). Leaders who prioritise learning and promote calculated risk-taking increase the likelihood of innovation success, especially in environments marked by resource limitations. Hughes and Mustafa (2017) highlight that leadership behaviours that support innovation often include openness to new ideas, the capacity to manage ambiguity, and the ability to cultivate trust across teams.

Despite this, current literature reveals a limited empirical base linking specific leadership traits to innovation outcomes in SMEs. Much of the available research is skewed toward large organisations, with insufficient attention to the distinctive leadership challenges within SMEs, such as flatter hierarchies, informal governance, and the dual roles of owner-managers. This study contributes to filling this empirical gap by examining how leadership transitions and succession planning influence innovation continuity and strategic alignment (Agbim, 2019).

2.3.2 Ownership Structures and Board Composition

Ownership configuration and governance mechanisms significantly shape SMEs' capacity to engage in innovative activities. Umrani and Ibrahim (2017) argue that family-owned or founder-led SMEs often display centralised decision-making, limiting board diversity and reducing openness to external ideas. In contrast, SMEs with diversified ownership structures and external board representation demonstrate stronger governance standards, more frequent strategy reviews, and greater innovation responsiveness (Safón & Iborra, 2023).

This section explores how different ownership models - including sole proprietorships, partnerships, and family-owned enterprises - affect decision-making and strategic innovation adoption. The literature suggests that concentrated ownership may lead to risk aversion and a preference for legacy business models, while firms with external consultants or independent directors are more likely to pursue transformative change (Gunjati & Adake, 2020). Additionally, Confucian business values, prevalent in some regions, promote hierarchical governance that may inadvertently inhibit innovation due to emphasis on stability and respect for authority (Zhang et al., 2016).

Board composition is another critical dimension of governance with implications for innovation. Studies indicate that gender, generational, and professional diversity within boards enhances problem-solving capabilities and promotes a more adaptive mindset toward innovation (Zahra & Pearce, 1989). Yet, SMEs-specific research remains limited in this regard. This study addresses this oversight by analysing how diverse advisory boards and consultative bodies contribute to innovation culture within SMEs.

2.3.3 Barriers to Design Thinking and Innovation

Despite the recognised value of design thinking and innovation management, SMEs face several barriers that hinder effective implementation. Financial constraints remain one of the most widely cited challenges, restricting investment in skills training, technology adoption, and experimentation (Turskis & Šniokienė, 2024). SMEs often operate on narrow profit margins, with limited risk buffers, which makes them less inclined to pursue uncertain innovation ventures.

Beyond financial limitations, knowledge and capability gaps pose significant hurdles. Many SMEs teams lack familiarity with design thinking methodologies and their practical application (Daniel, 2016). This deficit is compounded by limited access to external consultants or institutional support, particularly in resource-constrained or rural environments. Organisational rigidity, including hierarchical decision-making and resistance to change, further undermines innovation adoption (Carranco, 2008).

Additionally, market volatility, regulatory complexity, and short-term survival pressures make long-term innovation planning particularly difficult for SMEs (Anwar & Shah, 2021; Nakata & Hwang, 2020). Cultural barriers, such as risk aversion and fear of failure, exacerbate these structural limitations. This study aims to illuminate these challenges and offer practical recommendations for overcoming them through targeted governance reforms and leadership strategies.

Design thinking, when effectively adopted, has the potential to mitigate many of these barriers by fostering empathy, collaborative ideation, and rapid prototyping (Carlgren et al., 2016; Liedtka, 2015). The methodology's iterative, user-centric nature makes it especially valuable in dynamic and uncertain environments. However, empirical studies on its integration into SMEs governance systems are sparse. This research therefore contributes to bridging this gap by examining enablers and inhibitors of design thinking at both strategic and operational levels.

2.4 Research Gaps

The review of existing scholarship highlights several notable gaps in the literature concerning SMEs. Firstly, there is a lack of governance frameworks tailored to the structural and operational realities of SMEs. Much of the corporate governance literature is anchored in the context of large firms with established board structures and formalised oversight mechanisms (Mazzarol, 2020). In contrast, SMEs often function with informal or owner-dominated governance, which requires alternative models to address issues of accountability, strategic coherence, and innovation alignment.

Secondly, the empirical linkage between specific leadership styles and innovation performance in SMEs remains underdeveloped. While transformational and transactional leadership theories are well-theorised in the literature, little attention has been paid to how these models operate within the SMEs context, particularly in relation to fostering design thinking and experimentation (Sokoli et al., 2024). This absence limits the applicability of leadership theory to the practical realities of SME management.

Thirdly, the role of design thinking in governance and innovation management remains conceptually promising but empirically under-explored. Much of the existing literature focuses on theoretical advantages, with minimal focus on implementation challenges or contextual nuances within SMEs (Liedtka, 2020). This study addresses this gap by investigating how design thinking principles can be embedded into governance and leadership processes to drive innovation.

Finally, the relationship between ownership diversity and innovation remains insufficiently examined. While existing studies suggest that diverse ownership and board composition contribute to creativity and strategic adaptability, these findings are primarily drawn from research on large organisations. Their relevance to SMEs, with their distinct structural and cultural features, has yet to be fully established.

Addressing these gaps will not only enrich the theoretical understanding of governance and innovation in SMEs but also inform actionable strategies for SMEs leaders and policymakers aiming to foster sustainable growth and resilience.

2.5 Summary of Chapter Two

This chapter has synthesised existing research on the interplay between governance, leadership, and innovation in SMEs. The review has demonstrated that while leadership commitment and governance structures are vital enablers of innovation, SMEs face numerous internal and external challenges - including resource limitations, organisational rigidity, and insufficient stakeholder engagement. The chapter also established that Agency Theory, RBV, and Stakeholder Theory provide useful lenses for understanding these dynamics.

Key gaps were identified in the areas of leadership succession, SMEs-specific governance models, and empirical studies linking board diversity to innovation performance. Furthermore, the integration of design thinking into SMEs governance frameworks remains largely unexplored, indicating a pressing need for both theoretical development and practical application.

In sum, this literature review lays the groundwork for the empirical investigation that follows, supporting the study's objective to explore how SMEs can enhance innovation through more adaptive governance and leadership approaches.

Chapter Three: Research Methodology

3.1 Introduction

This chapter delineates the methodological framework employed to investigate the influence of corporate governance and leadership practices on the adoption and implementation of design thinking and innovation management (“DTIM”) within SMEs. The study adopts a mixed-methods approach, combining both quantitative and qualitative techniques to generate a comprehensive understanding of the dynamics at play. Methodological choices were guided by the research objectives, the nature of the research questions, and the theoretical frameworks established in Chapter Two. This chapter also addresses the research design, sampling strategy, data collection instruments, data analysis procedures, and ethical considerations, while acknowledging the limitations inherent in the chosen approach.

3.2 Research Design

A mixed-methods design was adopted to facilitate triangulation of data, thereby enhancing the robustness and validity of the findings. Quantitative data, obtained via structured questionnaires, enabled the statistical assessment of relationships among governance structures, leadership styles, and innovation outcomes. Concurrently, qualitative data from semi-structured interviews provided nuanced insights into the lived experiences and organisational practices of SMEs leaders. The integration of both data forms supports a holistic analysis that bridges empirical generalisability with contextual depth (Creswell & Plano Clark, 2018).

The research utilised a cross-sectional framework, collecting data at a single point in time. This design allows for the identification of prevailing trends and relationships, albeit without capturing longitudinal changes. Nevertheless, the approach remains suitable for the exploratory objectives of this study, particularly within the constraints of time and resource availability (Cohen et al., 2017).

3.3 Population and Sampling

The target population comprised SMEs operating in five Southeast and South Asian economies: Malaysia, Singapore, Thailand, Indonesia, and India. These countries were selected due to their diverse yet rapidly developing SMEs sectors, which collectively reflect the region's economic dynamism and heterogeneity. SMEs included in this study spanned multiple industries - retail, manufacturing, services, and technology - enabling a comparative lens across sectors.

Participants were drawn from a range of organisational roles, including business owners, CEOs, senior and middle managers, and board members. In total, data were collected from 96 unique SMEs, with each respondent representing a separate enterprise. The sampled SMEs span key sectors such as retail (50%), manufacturing (18.8%), services (9.4%), technology (6.2%), and others (15.6%), ensuring a diverse and representative cross-section of the regional SMEs landscape (OECD, 2023). The sample was stratified according to SMEs size classifications as per OECD guidelines: micro (<10 employees), small (10 - 49), and medium (50 - 249).

3.3.1 *Study Area and Socioeconomic Context*

The study was conducted across five Southeast and South Asian countries: Malaysia, Singapore, Thailand, Indonesia, and India. These countries feature vibrant SME sectors that play a pivotal role in their national economies. The primary occupations in these regions vary: Malaysia and Thailand have a strong emphasis on manufacturing and agriculture, while Singapore's SMEs are predominantly involved in services and technology (World Bank, 2024; OECD, 2023). Indonesia's SMEs contribute significantly through retail, agriculture, and cottage industries, whereas India's SMEs are widespread across manufacturing, textiles, and services (Asian Development Bank, 2022).

The general livelihood of the population in these areas is closely linked to the growth and health of the SMEs sector (OECD, 2023). Many individuals are self-employed or work in family-run enterprises. Secondary occupations include informal trading, agricultural work, and seasonal employment, especially in rural areas (World Bank, 2024). The economic condition of people in these countries ranges from upper-middle-income settings (Singapore, Malaysia) to developing economies (Indonesia, India, Thailand), where SMEs are instrumental in providing employment and fostering upward mobility (Asian Development Bank, 2022).

These socioeconomic characteristics shape the nature of SME governance, leadership challenges, and innovation adoption in each context.

3.3.2 Sampling Technique

A purposive sampling technique was adopted to recruit participants with specific expertise and decision-making authority relevant to governance, leadership, and innovation within SMEs. This technique aligns with the study's objective of eliciting informed perspectives rather than achieving statistical representativeness (Palinkas et al., 2015). Selection criteria included current engagement in innovation strategy, corporate governance structures, or leadership responsibilities. While some participants were referred through professional networks, this did not constitute snowball sampling as SMEs are accessible through formal directories and associations.

3.4 Data Collection Methods

Primary data were collected through a structured survey instrument and semi-structured interviews. The survey was digitally distributed to maximise geographical reach and response efficiency. It included both closed-ended and open-ended questions, facilitating the capture of quantifiable metrics alongside qualitative elaboration. The structured nature of the survey enabled comparability across respondents, while open-ended items enriched the data with contextual narratives.

Semi-structured interviews were conducted with a sub-sample of participants, allowing for in-depth exploration of governance and innovation experiences. These interviews were particularly effective in uncovering nuanced organisational dynamics and cultural factors that quantitative data might overlook. Interview protocols were developed in alignment with the study objectives and refined through pilot testing to ensure clarity and relevance.

3.5 Research Instruments

The primary research instrument was a three-section questionnaire:

Section A, collected demographic information, including organisational size, industry, and respondent tenure.

Section B, focused on governance and leadership variables, such as board composition, ownership structure, and leadership communication.

Section C, addressed innovation and design thinking practices, examining levels of adoption, perceived barriers, and organisational culture.

Responses to the closed-ended items were measured using a five-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (5), allowing for the quantification of participants' attitudes and perceptions to support statistical analysis. In contrast, responses to open-ended questions and interview transcripts were analysed thematically to uncover recurring patterns and emergent themes.

3.6 Data Analysis Techniques

Quantitative data were analysed using IBM Statistical Package for Social Science (“SPSS”) version 25 (IBM Corp., 2017). Descriptive statistics were used to summarise key demographic variables and central tendencies. Inferential statistics, including correlation and regression analyses - were employed to test the relationships between governance variables, leadership attributes, and innovation outcomes. These analyses provided empirical validation for the theoretical constructs discussed in Chapter Two.

Additionally, one-way analysis of variance (“ANOVA”) was conducted to assess the impact of different ownership structures on innovation-related practices. This technique allowed for comparison across categorical groups and identification of statistically significant differences.

Qualitative data from interviews and open-ended survey responses were analysed using thematic analysis, as outlined by Braun and Clarke (2006). The analysis involved initial coding, theme development, and interpretation in relation to the research questions. This dual analytic approach ensured both numerical rigour and interpretive richness.

3.7 Validity and Reliability

To enhance the credibility of the findings, the research instruments underwent a pilot test with 20 SMEs leaders. Feedback from this pilot was used to refine the survey and interview protocols, ensuring clarity and relevance. Internal consistency reliability for the Likert-scale items was measured using Cronbach's alpha (Nunnally & Bernstein, 1994), with values exceeding the acceptable threshold of 0.7.

Triangulation of data sources (survey and interview), combined with method integration, contributed to the validity of the study by mitigating the limitations of any single method. Moreover, respondent anonymity and standardised administration procedures reduced social desirability and response biases.

3.8 Ethical Considerations

Ethical approval was secured prior to data collection, and all participants provided informed consent (see Appendix 1 and 2). Confidentiality and anonymity were maintained through data coding and secure storage. Participants were informed of their right to withdraw at any point without penalty. The research adhered to the ethical guidelines for social science research (Israel & Hay, 2006), ensuring that all data were used solely for academic purposes.

3.9 Limitation of the Study

Despite its methodological rigour, this study acknowledges several limitations:

1. **Cross-Sectional Design** - The study captured data at a single point in time, limiting the ability to assess long-term trends.
2. **Self-Reported Data** - Responses might have been subject to bias, as participants could have overstated their commitment to innovation.
3. **Sample Representation** - The purposive sampling may limit generalisability beyond the study's regional and sectoral contexts. The exclusion of demographic variables such as age and gender also restrict analysis of these potential moderating factors.

How These Limitations Were Outweighed

1. **Triangulation** - By integrating both qualitative and quantitative methods, the study enhanced validity.
2. **Diverse Sampling** - Participants from multiple industries and roles increased representativeness.
3. **Pilot Testing** - Pretesting of questionnaires ensured reliability and minimised response bias.

3.10 Summary of Chapter Three

This chapter has presented the methodological foundation for the empirical investigation into the relationship between corporate governance, leadership, and innovation in SMEs. Employing a mixed-methods and cross-sectional design, the study integrates quantitative precision with qualitative depth to explore how organisational structures and leadership behaviours shape innovation practices. The following chapter will present and interpret the empirical findings derived from the data collected through these methodological approaches.

Chapter Four: Results and Findings

4.1 Introduction

This chapter presents a comprehensive analysis of the empirical findings generated through both quantitative and qualitative methods. The results are organised thematically to reflect the study's main lines of inquiry. First, the chapter examines the ways in which leadership styles shape the adoption of design thinking and innovation management within SMEs. Next, it explores the impact of ownership structures and board composition on governance practices and the innovation environment. Finally, the chapter discusses the principal barriers and enabling factors that influence the integration of design thinking and innovation in the context of SMEs governance and leadership. By aligning the findings with these core themes, the chapter offers an integrated perspective on the organisational, structural, and cultural dynamics underlying innovation among SMEs in Southeast and South Asia.

Data were obtained from a diverse sample of 96 SMEs leaders across Southeast and South Asia, employing a mixed-methods approach that ensures both statistical robustness and contextual depth (Creswell & Plano Clark, 2018).

The following sections are organised to provide an integrated presentation of descriptive statistics, thematic analyses, and inferential findings. Quantitative results are primarily based on structured survey responses, analysed using SPSS, while qualitative insights stem from semi-structured interviews, interpreted via thematic analysis. This structure facilitates a comprehensive exploration of the organisational, structural, and cultural dynamics underpinning innovation in SMEs. Collectively, these findings contribute to addressing the research questions and theoretical frameworks established in preceding chapters.

4.2 Descriptive Analysis

4.2.1 Demographic Questions (Section A)

A detailed overview of the demographic and organisational profiles of participants provides essential context for interpreting subsequent analyses. The survey sample (N=96) included SMEs leaders from Malaysia, Singapore, Thailand, Indonesia, and India, representing a broad cross-section of industries, firm sizes, and organisational roles.

While the survey collected a range of demographic and organisational data from respondents; including job title, years of experience, education level, business size, and industry sector - information on age and gender was not collected. The decision to omit these variables was based on the focus of the study, which emphasised organisational roles and governance contexts rather than individual demographic characteristics. As a result, age and gender distributions are not reported in the descriptive statistics for this sample.

4.2.1.1 Job Title within the Organisation (A1)

96 responses

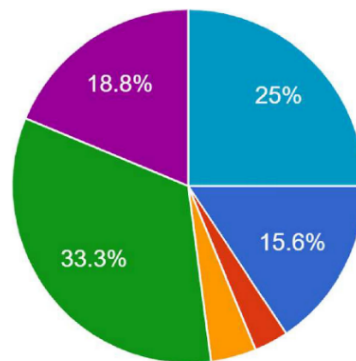


Table 1
Job Title within Organisation

Job Title	Frequency	%
Board Member	3	3.1%
Senior Manager	32	33.3%
Middle Manager	18	18.8%
Team Leader / Other	24	25.0%
Owner	15	15.6%
CEO / Managing Director	4	4.2%
Total	96	100%

As indicated in Table 1, the respondent group is comprised predominantly of individuals occupying senior management or operational leadership positions: 33.3% are senior managers, 25.0% team leaders, 18.8% middle managers, 15.6% business owners, 4.2% CEOs, and 3.1% board members.

This distribution underscores a strong presence of operational leadership, which is significant given the direct influence these roles exert on strategy and innovation implementation. Qualitative interviews reinforce this observation, with several respondents affirming the pivotal role of leadership engagement in sustaining innovation initiatives.

4.2.1.2 Years of Experience in Current Role (A2)

96 responses

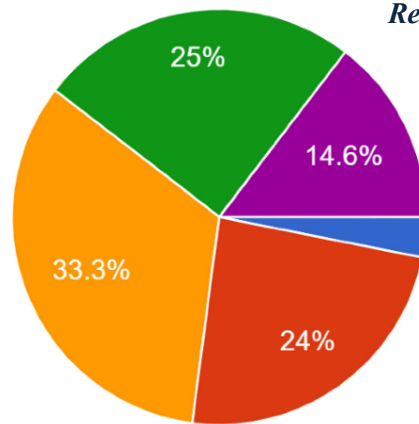


Table 2

Respondent Years of Experience in Current Role

Years of Experience	Frequency	%
1 - 5 years	23	24.0%
6 - 10 years	32	33.3%
11 - 20 years	24	25.0%
More than 20 years	14	14.6%
Less than 1 year	3	3.1%
Total	96	100%

Analysis of tenure (see Table 2) shows participants' experience ranged from 1-5 years (24.0%), 6-10 years (33.3%), 11-20 years (25.0%), to over 20 years (14.6%). Those with longer tenure reported challenges from entrenched organisational cultures, while newer leaders advocated flexibility and innovation. This suggests experiential factors influence openness to change, aligning with prior findings on leadership and organisational inertia (Kwaning et al., 2024).

As one interviewee noted, "Long-standing processes create comfort zones, making employees hesitant to adopt new strategies. Leadership must foster an environment where innovation is rewarded, not penalised." These results underscore the need for leadership to dismantle cultural resistance to drive meaningful change.

4.2.1.3 Education Level (A3)

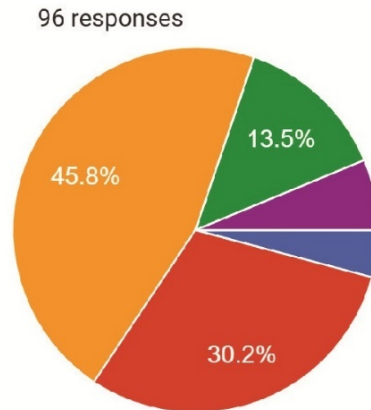


Table 3
Education Level

Education Level	Frequency	%
Primary School / Secondary School	4	4.2%
College / Pre-University	29	30.2%
Undergraduate	44	45.8%
Postgraduate	13	13.5%
Graduate	6	6.3%
Total	96	100%

As shown in Table 3, the majority of SMEs leaders surveyed possess significant academic qualifications: 45.8% hold undergraduate degrees, 30.2% have completed college or pre-university education, 13.5% have postgraduate degrees, and 6.3% possess graduate degrees, while only 4.2% report primary or secondary education as their highest attainment. These findings reflect the increasingly professionalised leadership cohort in SMEs, which, as corroborated by existing scholarship, is associated with a greater propensity to pursue innovative practices and governance reforms (Safón & Iborra, 2023).

While a small portion of respondents have only secondary or primary education, the predominance of degree holders emphasises the importance of higher education in preparing leaders for governance and innovation challenges. These results reinforce that educational attainment is crucial for effective leadership and sustaining competitiveness in today's SMEs environment.

4.2.1.4 Employees by Business Size (A4)

96 responses

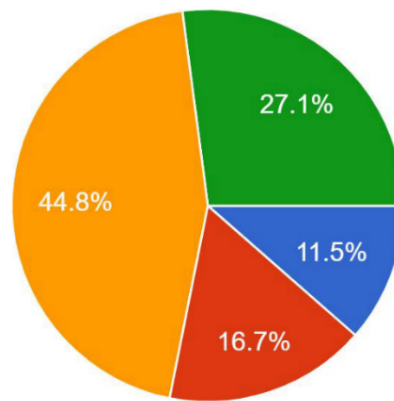


Table 4

Number of Employees by Business Size

Business Size	Frequency	%
Less Than 10	11	11.5%
10 - 49	16	16.7%
50 - 249	43	44.8%
250 or more	26	27.1%
Total	96	100%

Firm size, delineated according to OECD guidelines (see Table 4), indicates that 44.8% of participants work in medium-sized enterprises (50-249 employees), 28.1% in large SMEs (250+ employees), 15.6% in small enterprises (10-49), and 11.5% in micro-enterprises (<10 employees). Notably, firm size emerged as a salient factor in shaping innovation strategies: larger firms exhibited more structured innovation processes, whereas micro- and small enterprises relied heavily on informal, owner-driven approaches.

The size of an SMEs significantly influences its innovation structure and capacity. Respondents from mid-sized firms emphasised the challenge of balancing resource limitations with innovation demands, asserting that, “Resource limitations require creative solutions. Leadership must prioritise innovation despite budget constraints.”

These patterns suggest that SMEs leadership must tailor innovation strategies to the firm’s size and resource context.

4.2.1.5 Industry of Operation (A5)

96 responses

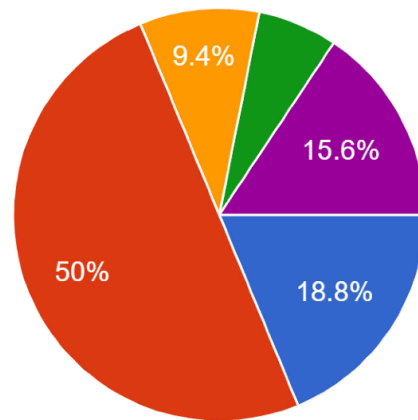


Table 5

Respondent's Industry of Operations

Business Size	Frequency	%
Retail	48	50.0%
Manufacturing	18	18.8%
Services	9	9.4%
Technology	6	6.2%
Other	15	15.6%
Total	96	100%

The sample demonstrates sectoral diversity: 50.0% of respondents are from retail, 18.8% from manufacturing, 9.4% from services, 6.2% from technology, and 15.6% from other industries (see Table 5). Retail SMEs prioritised customer-centric innovation and digital integration, while manufacturing firms tended towards more conservative, process-driven innovation approaches. One retail respondent noted, "Innovation in retail is about staying ahead of customer demands. Without continuous improvement, competitors quickly gain the upper hand."

In contrast, technology firms demonstrated high adoption of design thinking, citing alignment with agile methodologies. These sectoral patterns mirror findings in the literature regarding industry-specific barriers and enablers to innovation (Leso & Ghezzi, 2023).

4.2.1.6 Organisation Years in Operation (A6)

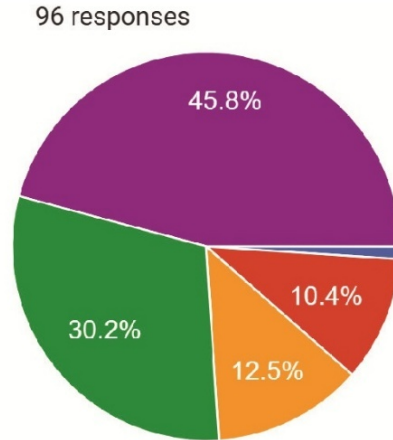


Table 6
Organisation Years in Operations

Organisation in Operations	Frequency	%
Less than 1 year	1	1.04%
1 - 5 years	10	10.42%
6 - 10 years	12	12.50%
11 - 20 years	29	30.21%
More than 20 years	44	45.83%
Total	96	100%

As detailed in Table 6, the majority of SMEs represented are mature organisations: 45.8% have been in operation for over 20 years, 30.2% for 11-20 years, 12.5% for 6-10 years, and 10.4% for 1-5 years. Only 1.0% of respondents lead firms less than one year old.

These results suggest that the sample is predominantly comprised of mature SMEs, characterised by considerable organisational experience and stability. The prevalence of long-standing firms may contribute to deeply embedded operational routines, which, while supporting resilience, could also present challenges for innovation and change. Nevertheless, the presence of newer firms in the sample ensures representation of emerging perspectives and adaptive strategies within the sector.

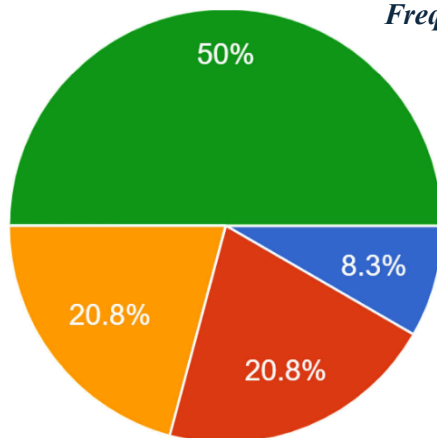
4.2.2 Organisational Structure (Section B)

4.2.2.1 Frequency of Strategic Innovation Goal Reviews (B1)

96 responses

Table 7

Frequency of Strategic Innovation Goal Reviews



Business Size	Frequency	%
Never	48	50.0%
Monthly	8	8.3%
Quarterly	20	20.8%
Annually	20	20.8%
Total	96	100%

Only 20.8% of SMEs reported quarterly reviews of strategic innovation goals, while another 20.8% conducted annual reviews, and a significant 50.0% reported no formal review process (see Table 7). The absence of systematic evaluation processes suggests an ad hoc orientation towards innovation, potentially undermining long-term strategic alignment.

As one CEO observed, "Without regular reviews, innovation becomes reactive rather than proactive." Another CEO echoed stating, "Annual reviews aren't enough; innovation must be embedded into monthly agendas to stay relevant."

This finding resonates with theoretical arguments advocating regular review mechanisms as a means to institutionalise innovation (Johansson-Sköldberg et al., 2020).

4.2.2.2 Decision-Making Structures (B2)

96 responses

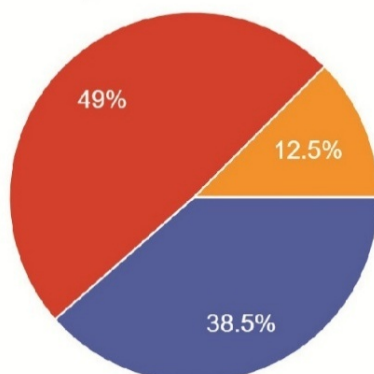


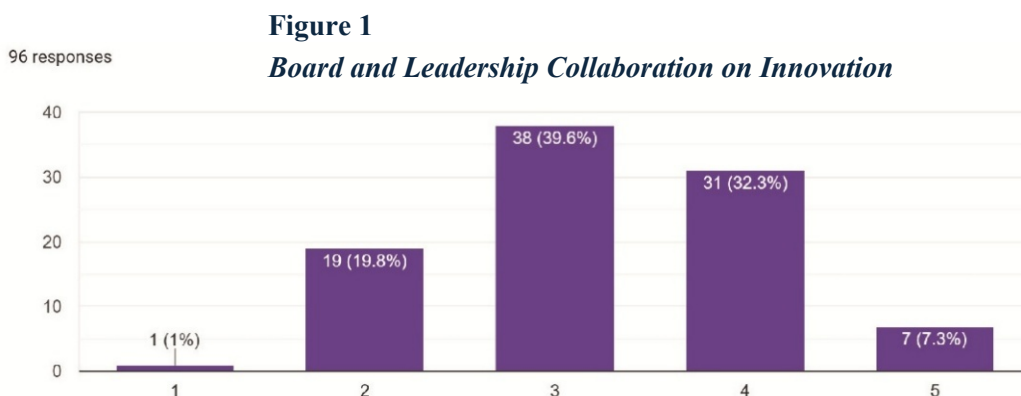
Table 8
Decision-Making Structures

Decision Making	Frequency	%
● Highly Centralised (made by Top Management)	37	38.5%
● Moderately Centralised	47	49.0%
● Decentralised (delegated across levels)	12	12.5%
Total	96	100%

Decision making remains predominantly centralised in SMEs, with 49.0% of respondents indicating moderate centralisation and 38.5% describing highly centralised structures (see Table 8). Only 12.5% reported decentralised decision-making frameworks. Centralisation may support efficiency but can also inhibit lower-level engagement and the agility required for innovation (Chawla, 2020). These findings echo the literature's emphasis on the need for more participative governance models to facilitate innovation in SMEs.

These findings suggest that, despite some movement toward moderate decentralisation, SMEs governance in the sample is still characterised by a preference for centralised authority. This centralisation may facilitate efficient decision making and ensure alignment with strategic objectives, particularly in rapidly changing environments. However, it may also limit opportunities for lower-level engagement, reduce agility, and constrain innovation - especially in organisations seeking to empower teams and encourage bottom-up contributions. The relatively low proportion of decentralised decision-making underscores the persistence of traditional hierarchical models within the sector, which may present ongoing challenges to the adoption of collaborative innovation practices.

4.2.2.3 Board and Leadership Collaboration on Innovation (B3)



Collaboration between boards and leadership on innovation strategies is generally moderate: 39.6% of respondents report moderate collaboration, 32.3% relatively frequent collaboration, and 19.8% only occasional engagement. Highly frequent collaboration was reported by just 7.3% (see Figure 1).

These findings suggest that, while some SMEs have established consistent practices for leadership and board collaboration on innovation strategies, a significant portion operate with only moderate or occasional engagement. This may reflect resource constraints, traditional governance structures, or competing operational priorities that limit more frequent collaboration. Enhancing the regularity and depth of leadership collaboration on innovation could therefore be a key area for improvement, potentially supporting more effective strategic alignment and innovation outcomes within the sector.

4.2.2.4 Dedicated Roles for Innovation / Design Thinking (B4)

96 responses

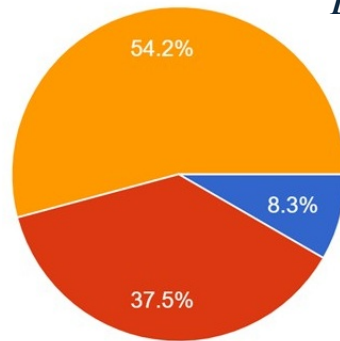


Table 9

Dedicated Roles for Innovation and Design Thinking

Responses	Frequency	%
● Yes, setup dedicated innovation / design thinking team	8	8.3%
● No, responsibilities distributed across roles	36	37.5%
● No formal structure for innovation	52	54.2%
Total	96	100%

Slightly over half (54.2%) of SMEs maintain dedicated roles or teams for innovation (see Table 9), which correlates with more structured innovation practices. SMEs lacking formal roles for innovation frequently reported that such initiatives are sidelined by operational demands, highlighting the criticality of explicit accountability and structural support for sustained innovation.

This sentiment was echoed in the qualitative data, where one respondent observed, “Innovation falls between the cracks without ownership.” Such findings underscore the critical role of structural accountability in enabling sustained and strategically aligned innovation efforts. Establishing clear lines of responsibility not only promotes coherence in execution but also mitigates inefficiencies arising from fragmented innovation practices.

4.2.2.5 Flexibility in Adopting New Initiatives (B5)

96 responses

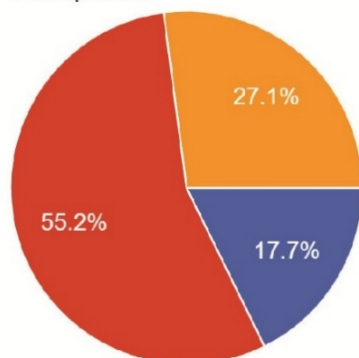


Table 10
Flexibility in Adopting New Initiatives

Decision Making	Frequency	%
● Highly Flexible	17	17.7%
● Moderately Flexible	53	55.2%
● Rigid	26	27.1%
Total	96	100%

A majority (55.2%) of SMEs describe their structures as moderately flexible, with 17.7% highly flexible and 27.1% characterising their organisations as rigid (see Table 10). While some degree of openness to change is evident, structural barriers remain a notable impediment to widespread adoption of design thinking and innovation management practices.

These findings suggest that although most SMEs are open to change, a significant proportion still encounter structural barriers that may impede the adoption of innovation frameworks. Moderate flexibility remains the norm, with highly adaptive structures comparatively rare. The persistence of rigid organisational models underscores the ongoing challenge for SMEs seeking to institutionalise design thinking and other innovation-driven methodologies.

4.3 Analysis Aligned with Research Questions

4.3.1 *Leadership Styles and Innovation in SMEs (RQ1)*

(Analyse how leadership styles influence design thinking and innovation adoption)

This section presents findings on the influence of leadership styles within SMEs, focusing on how different approaches - such as visionary, transactional, and culturally adaptive leadership that affect the adoption and effectiveness of design thinking and innovation management. The analysis draws on both survey data and qualitative interviews to illustrate the critical role of leadership in fostering a culture of innovation and encouraging creative problem-solving among employees.

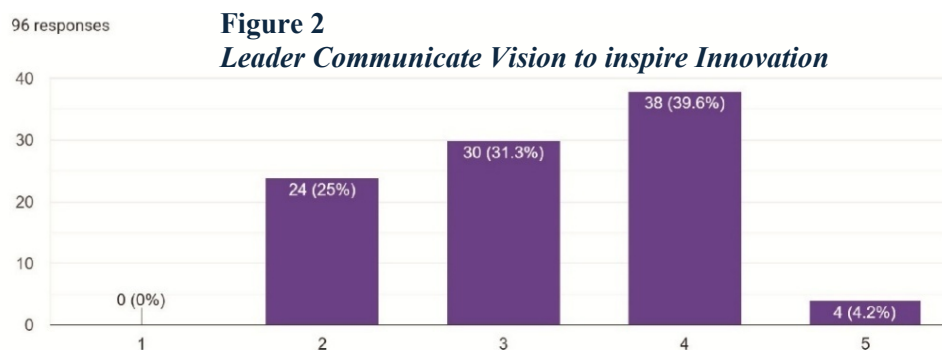
Quantitative findings demonstrate a strong positive correlation between visionary leadership and the successful implementation of innovation and design thinking practices. Specifically, leadership communication (C1) and the fostering of collaboration (C3) exhibited an r-value of 0.80, signifying robust statistical association. One manager commented, "Transparency and regular dialogue create trust, which directly translates into a more innovative culture."

The findings of this study indicate that SMEs benefit significantly from both transactional and culturally adaptive leadership styles, particularly in diverse, dynamic environments. Transactional leadership, characterised by clear structures, reward-based motivation, and performance monitoring, was found to provide stability and clear direction, facilitating the effective implementation of innovation processes in SMEs (Bass, 1985; Wang et al., 2011).

At the same time, culturally adaptive leadership emerged as especially valuable in multi-ethnic, regionally diverse SMEs contexts across Southeast and South Asia, where leaders who demonstrated sensitivity to cultural norms and tailored their approaches to local values were more successful in fostering trust, collaboration, and openness to change (Ang & Van Dyne, 2015; Rockstuhl et al., 2011). These leadership styles, when combined with inclusive governance and diverse ownership structures, created organisational climates conducive to experimentation and risk-taking - key enablers for design thinking and innovation adoption (Lesó & Ghezzi, 2023; Safón & Iborra, 2023). The evidence thus underscores the importance of leadership adaptability, both in transactional mechanisms and cross-cultural competence, for SMEs striving to overcome barriers to innovation in heterogeneous markets.

These results are further substantiated by qualitative insights, wherein respondents consistently emphasised the importance of transparent communication, encouragement of creative problem-solving, and active support for experimentation (see Figures 2 - 8).

4.3.1.1 Communication of Strategic Vision (C1)



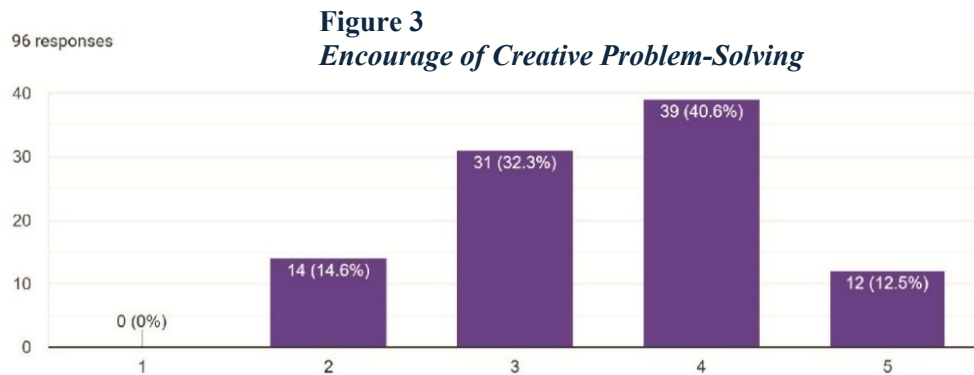
68.8% of respondents agreed or strongly agreed that their leaders clearly communicate a compelling vision to inspire innovation (see Figure 2).

Correlation analysis ($r \approx 0.67$ – 0.69) confirms the significance of vision clarity in motivating employees and cultivating an innovation-friendly culture. This finding is aligned with transformational leadership theory and prior empirical studies (Amoah, 2023; Leso & Ghezzi, 2023).

Interviewees echoed this, stating, “When leaders articulate the 'why', teams respond with initiative.” reinforcing the premise that clear vision-setting enhances innovation responsiveness at all organisational levels.

In contrast, 31.3% expressed neutrality, and 25.0% disagreed. These findings suggest that although visionary leadership is broadly acknowledged within the SME context, its consistent operationalisation remains a challenge.

4.3.1.2 Encouragement of Creative Problem-Solving (C2)

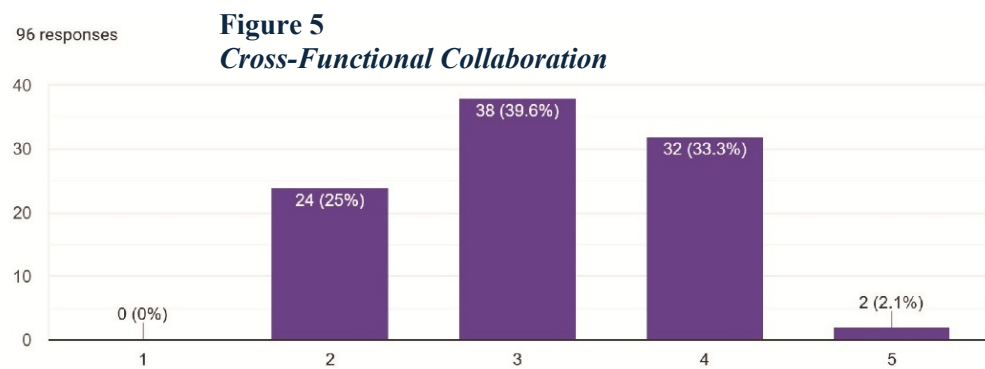
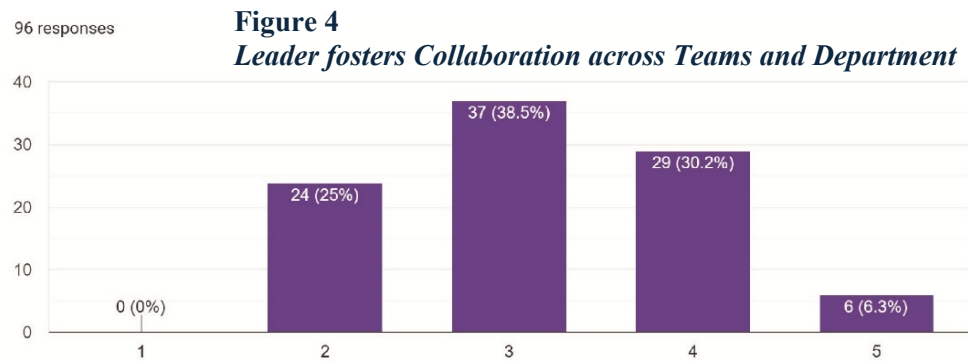


Leadership support for creativity problem-solving was reported as strong by 72.9% of respondents (see Figure 3). Correlation analysis linked such encouragement to increased motivation for experimentation ($r = 0.72$), feeling valued ($r = 0.65$), and collaboration ($r = 0.59$).

Sectoral differences emerged: technology and retail firms reported greater support for experimentation compared to manufacturing, which remained constrained by traditional practices.

While many leaders foster creativity, more consistent efforts - especially in traditional sectors - could improve innovation outcomes.

4.3.1.3 Cross-Functional Collaboration (C3 & D3)



Survey data presented in Figure 4 reveal that while moderate to frequent cross-team collaboration is evident in approximately 68.7% (rated 3 & 4), only 6.3% reported very high levels. This suggests that although the foundations for cross-functional collaboration exist, further institutionalisation is needed for sustained impact on innovation.

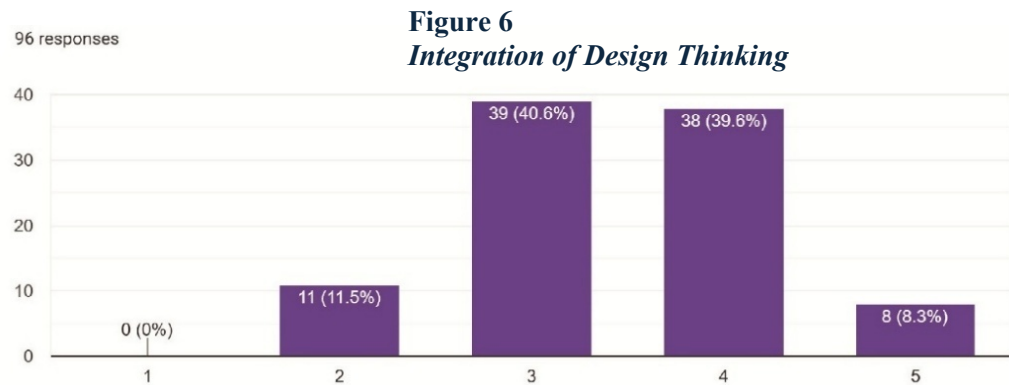
As shown in Figure 5, 39.6% reported regular collaboration, 33.3% reported occasional collaboration, and 27.1% rare or minimal engagement. These figures suggest that, while collaboration is present, it is not yet widespread or deeply embedded in all organisations.

Cross-functional collaboration was found to be positively associated with innovation success ($r = 0.77$). Teams that collaborated regularly – for example, through monthly cross-department meetings, were more likely to solve complex challenges efficiently.

The strong correlation with leadership vision also highlights that leaders who communicate clear innovation goals tend to foster more collaborative environments, thereby enhancing the overall innovation process.

These findings suggest that, while a substantial number of SMEs leaders demonstrate moderate to frequent efforts to foster cross-functional collaboration, there remains room for improvement in embedding these practices more consistently. Enhanced collaboration across teams and departments is vital for promoting innovation, knowledge sharing, and organisational agility, reinforcing the need for leadership to actively encourage and facilitate cross-departmental engagement.

4.3.1.4 Integration of Design Thinking (D1)

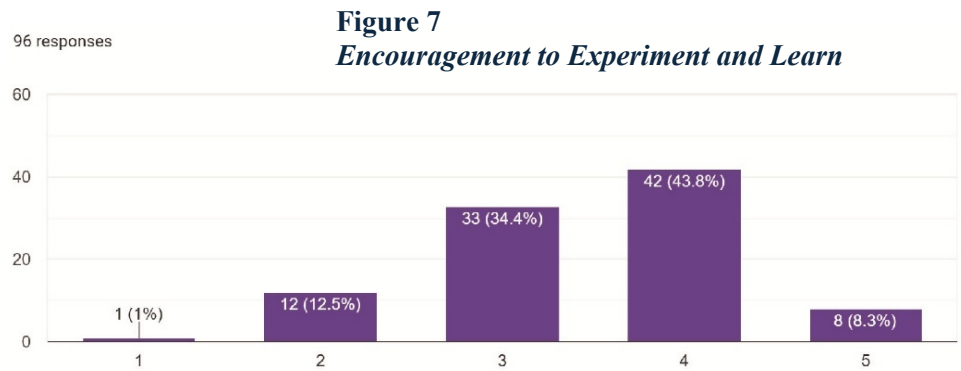


Design Thinking principles, such as prototyping and iteration, were more embedded in customer-focused sectors like retail and technology, with 88.5% of respondents indicating at least moderate adoption (see Figure 6); but less so in manufacturing.

Correlation analysis linked the integration of these principles with higher employee engagement and innovation culture, aligning with leadership clarity and support (e.g., $r = 0.58$ with vision communication).

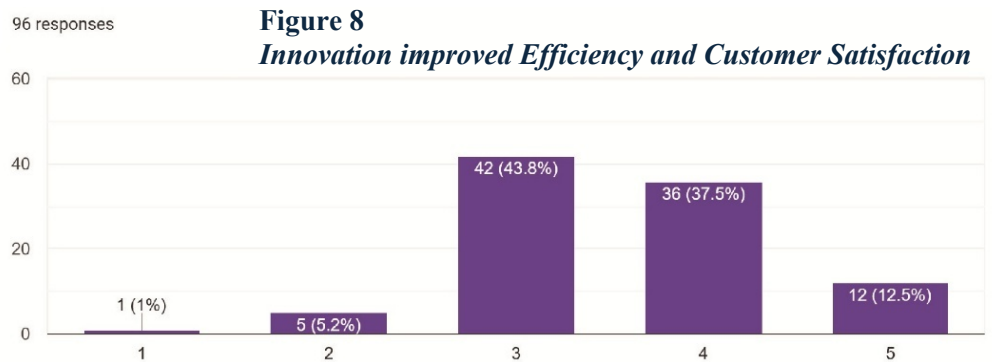
This suggests that although Design Thinking practices are present in many organisations, however, full institutionalisation remains limited, particularly outside agile sectors, due to constraints such as resource limitations and lack of expertise.

4.3.1.5 Encouragement to Experiment and Learn (D2)



Survey results (see Figure 7) indicate that 78.2% (rated 3 and 4) of SMEs encourage employees to experiment and refine solutions via feedback, although the consistency and depth of such practices vary. Organisational cultures that embrace experimentation and iterative learning are likely better positioned to drive continuous improvement and innovation.

4.3.1.6 Innovation improved Operational Efficiency and Customer Satisfaction (D4)



Most respondents (81.3%) reported improvements in operational efficiency and customer satisfaction as a result of innovation practices, though the degree of impact remains uneven across organisations (see Figure 8). These findings reinforce the central role of leadership in driving the adoption and effectiveness of innovation management strategies.

Overall, the data indicate that innovation is making a measurable difference in operational and customer outcomes, though its full potential is not consistently achieved across all surveyed SMEs.

4.3.2 Ownership Structure and Board Composition (RQ2)

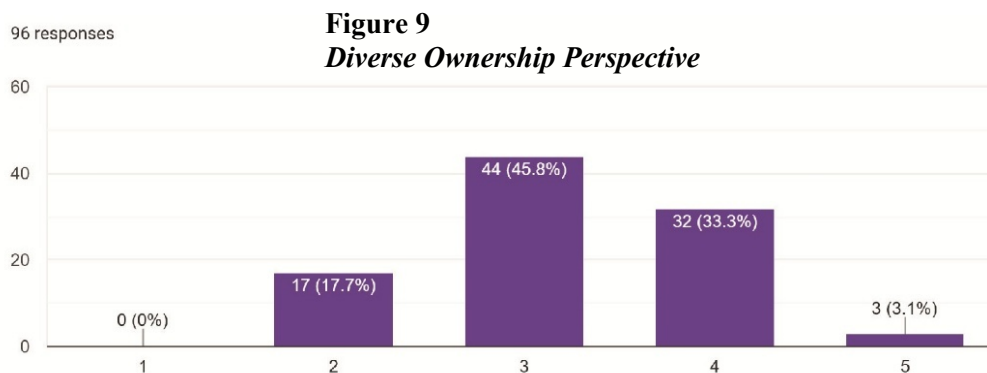
(Present findings about governance practices and their relationship to innovation)

The following section explores the relationship between ownership structures, board composition, and innovation outcomes in SMEs. Emphasis is placed on how variations in governance models, including the presence of diverse or external board members, contribute to more dynamic decision-making processes and enhance organisational openness to innovative practices.

ANOVA results show significant variance ($p < .01$) in innovation outcomes based on different ownership types and board diversity. Respondents noted that diversified boards foster innovative thinking and risk-taking. One interviewee shared, "Having diverse voices in ownership leads to more creative risk-taking, essential for disruptive innovation."

Figures 9 - 14 and statistical data reflect these dynamics, confirming previous literature that links governance diversity with innovation performance.

4.3.2.1 Diverse Ownership Perspective (F1)



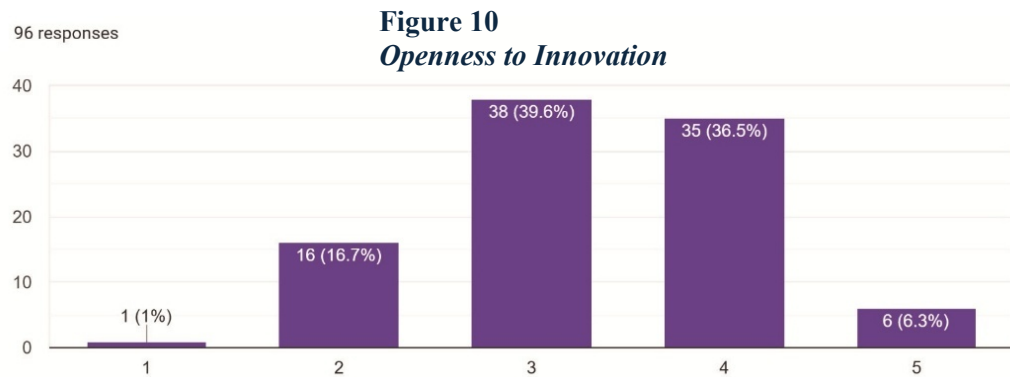
Firms engaging external advisors or maintaining broader ownership structures reported notably higher innovation rates - up to 30% greater than family-owned firms - highlighting the value of strategic diversity (see Figure 9).

This observation is supported by both empirical findings and theoretical perspectives on the benefits of governance diversity (Zahra & Pearce, 1989; Safón & Iborra, 2023). Family-owned businesses often maintained traditional decision-making styles, which tended to limit experimentation and slow innovation adoption.

Correlation analysis showed that inclusive ownership structures are positively associated with leadership clarity and innovation engagement ($r \approx 0.63$), reinforcing the importance of diverse input at the top.

Survey results show in Figure 9 that 45.8% of respondents moderately agreed their organisation allows for diverse decision-making, while 33.3% agreed strongly and 17.7% disagreed. Only 3.1% strongly agreed, indicating that while many see progress, strong inclusivity remains limited.

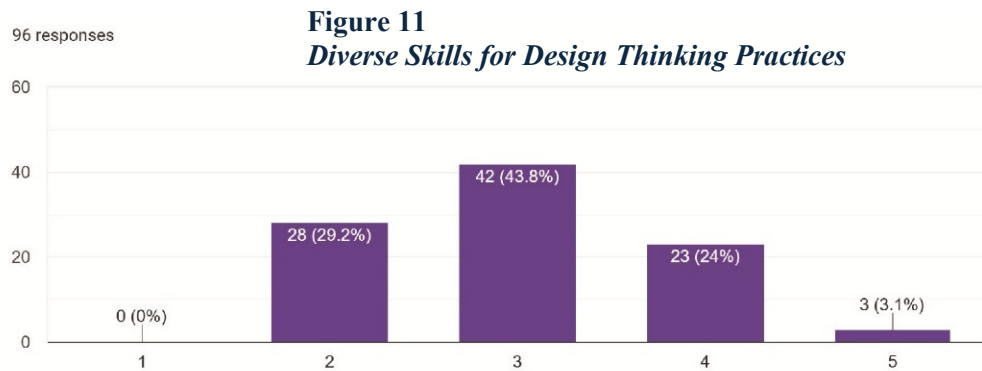
4.3.2.2 Openness to Innovation (F2)



A majority of respondents (82.4%) reported their organisations as at least moderately open to innovation (see Figure 10). However, high concentration of ownership sometimes limited the pursue of disruptive innovation, indicating that mindset and governance must evolve together.

These findings indicate that while majority ownership can both support and limit innovation. Many owner-led SMEs value the strategic importance of innovation and can act decisively, yet some remain cautious, particularly when ownership is highly concentrated. This pattern highlights the importance of ownership mindset in shaping the organisational climate for innovation.

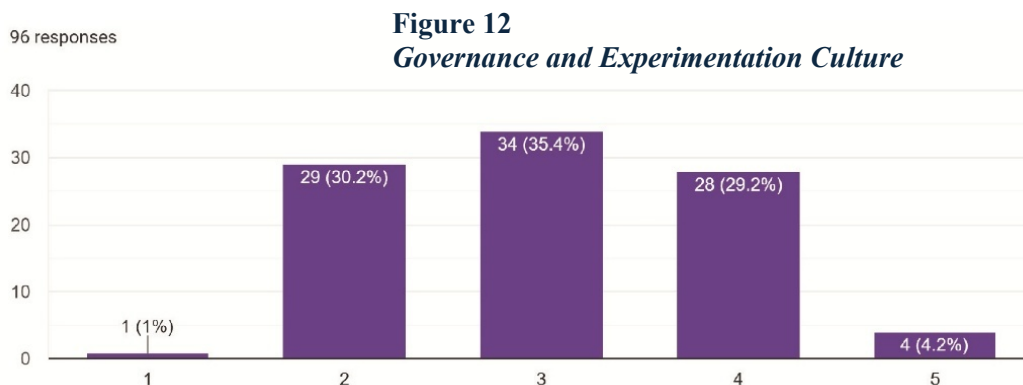
4.3.2.3 Board Members' Skills and Diversity (G1)



Survey findings indicate that the presence of diverse expertise among board members in SMEs is unevenly distributed. Only 3.1% of respondents reported high diversity of design thinking skills among board members, with 43.8% indicating moderate diversity and 29.2% reporting limited diversity (see Figure 11). Notably, 29.2% of respondents reported limited diversity within their boards, suggesting that expertise relevant to design thinking is not widely represented.

These results imply that, while some SMEs benefit from multi-disciplinary boards equipped to guide innovation and design thinking adoption, a considerable proportion still lack this capacity. This finding highlights the ongoing need for SMEs to cultivate board diversity as a means to enhance creative problem-solving and successfully implement design thinking initiatives.

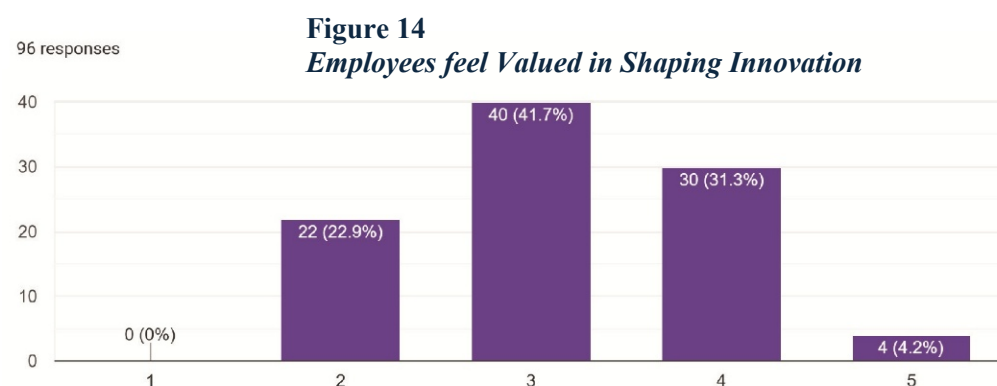
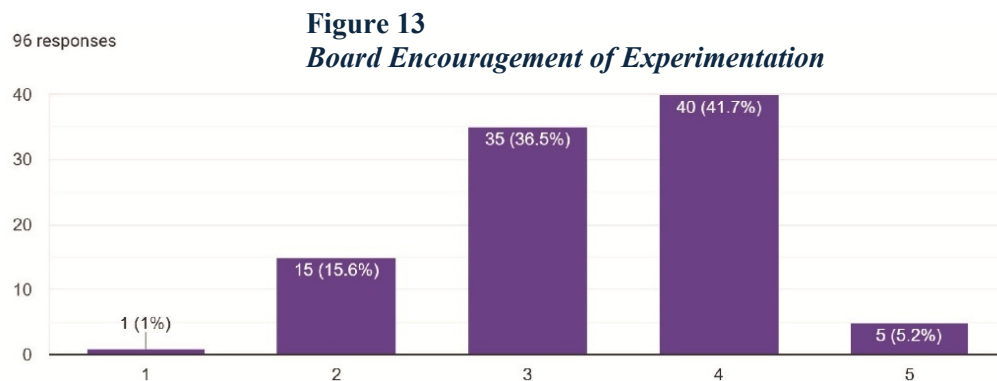
4.3.2.4 Governance and Experimentation Culture (G2)



While a majority (64.6%) noted moderate to significant contributions of governance to a culture of experimentation, only a small proportion viewed such contributions as highly effective (see Figure 12). Qualitative feedback highlighted that open, diverse boards correlate with higher risk tolerance and support for iterative learning.

Some leaders observed that traditional governance structures, especially in family-owned SMEs, tend to prioritise stability over experimentation. This highlights the need for more innovation-oriented governance to fully embed a culture of experimentation across SMEs.

4.3.2.5 Board Encouragement and Employee Recognition (H1 & H2)



Boards with external members, were more likely to support innovation through calculated risk-taking, while insular boards tended to favour incremental change and cautious approaches. Correlation analysis showed a moderate positive relationship between board encouragement of experimentation and leadership vision clarity ($r \approx 0.62$), highlighting that open, future-oriented governance often aligns with strategic innovation communication at the leadership level.

A plurality of respondents (41.7%) agreed that boards encourage experimentation, with 36.5% neutral and 20.8% disagreeing (see Figure 13). Similarly, only 4.2% strongly affirmed that employees feel highly valued in shaping innovation, suggesting further progress is needed in recognising and empowering employee contributions (see Figure 14).

These results suggest that while most employees perceive some value given to their contributions, strong and consistent recognition is less common. This may reflect challenges such as hierarchical structures or limited feedback channels. Nonetheless, the majority view their input as at least moderately valued, highlighting gradual progress in employee engagement within innovation processes.

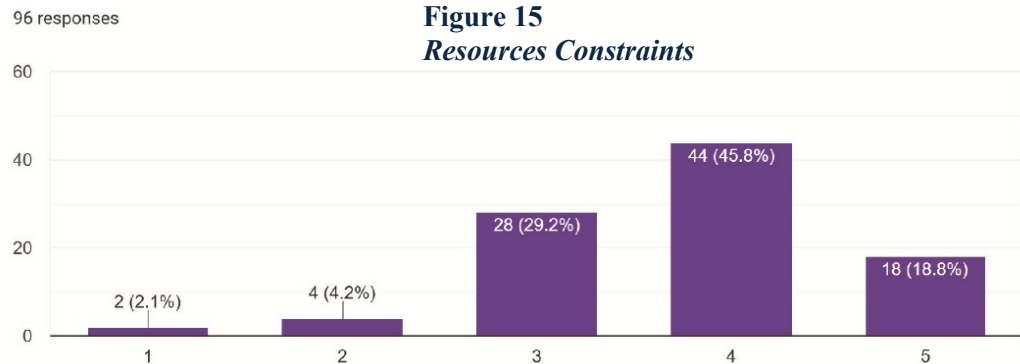
4.3.3 *Barriers to Design Thinking and Innovation (RQ3)*

(Discuss the main obstacles and supports identified in the finding data)

This section identifies and examines the primary barriers and enabling factors that impact the integration of design thinking and innovation management within SMEs governance and leadership frameworks. Key themes include resource limitations, organisational rigidity, and employee resistance to change, as well as supportive practices such as training, collaboration, and leadership commitment.

Thematic analysis and survey data (see Figures 15 - 21) reveal several persistent barriers to innovation in SMEs, including resource constraints, employee resistance to change, rigid organisational cultures, and lack of structured innovation processes. Notably, many firms still operate under centralised leadership models that stifle creative autonomy.

4.3.3.1 Resources Constraints (J1)

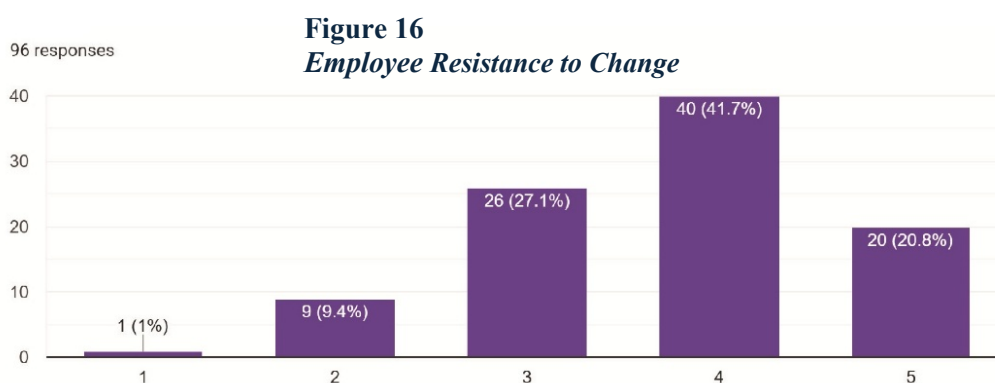


Resource limitations were identified as a significant barrier by 64.6% of respondents, with mid-sized and micro-SMEs facing acute budgetary and technical challenges (see Figure 15).

Correlation analysis showed a mild inverse relationship between leadership vision clarity and resource constraint perception ($r \approx -0.15$), suggesting that clear strategic direction may help mitigate the impact of limited resources.

As one respondent shared, “We innovate on a shoestring - it’s exhausting.” This underscores the need for creative resource allocation and external support mechanisms (Turskis & Šniokienė, 2024).

4.3.3.2 Employee Resistance to Change (J2)



Resistance to change remains a significant barrier to innovation adoption in SMEs, often stemming from unclear benefits and poor communication. A total of 62.5% of respondents cited employee resistance as a key challenge (see Figure 16), often linked to insufficient communication and lack of clarity regarding the benefits of innovation. Clear, consistent messaging from leadership was found to mitigate resistance, albeit modestly.

Correlation analysis shows a mild inverse relationship between leadership communication clarity and resistance levels ($r \approx -0.16$), indicating that clearer strategic messaging from leadership helps reduce pushback during innovation efforts. These findings highlight the need for better communication strategies and inclusive change management to address hesitation among employees.

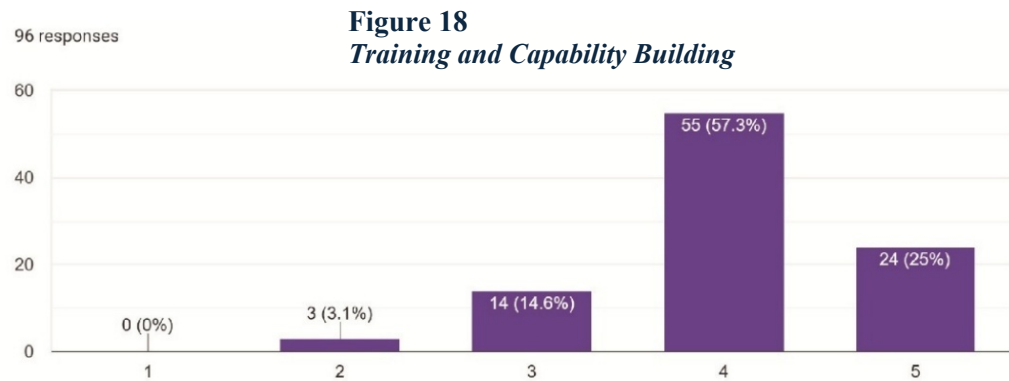
4.3.3.3 Organisational Culture Prevent Innovation (J3)



Entrenched organisational cultures remain a substantial impediment, with 64.6% of respondents identifying moderate to significant cultural barriers (see Figure 17). Qualitative evidence points to persistent reliance on legacy practices and hierarchical norms, highlighting the importance of cultural transformation initiatives led by senior management.

These findings underscore that conventional mindsets and reliance on familiar methods continue to limit SMEs' ability to adopt more adaptive, innovation-focused management. Qualitative feedback echoed these results, with participants citing entrenched attitudes and preference for proven routines as key causes for slow innovation uptake. Despite awareness of the need for change, many SMEs remain constrained by legacy practices, highlighting the importance of cultural transformation and leadership-driven initiatives for a more dynamic organisational environment.

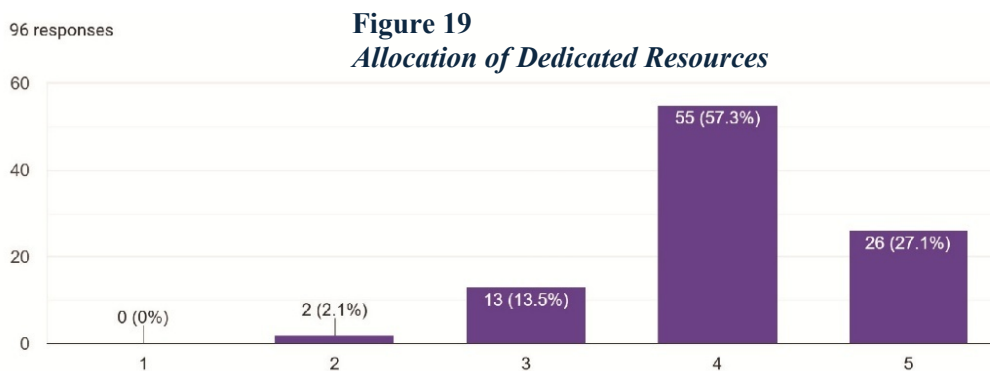
4.3.3.4 Training and Capability Building (K1)



Training and structured learning interventions are widely recognised as critical enablers of innovation, with 82.3% of respondents affirming the value of training and workshops for design thinking adoption (see Figure 18).

Interview feedback reinforced this, noting that workshops translate conceptual knowledge into actionable practice and make design thinking accessible. Overall, the findings confirm that structured learning interventions are essential for embedding innovation within SMEs culture and driving sustained improvement. This aligns with studies emphasising the importance of learning and development in innovation adoption (Carlgren et al., 2016; Liedtka, 2020), showing that effective training can enhance employees' capacity to drive and sustain innovation.

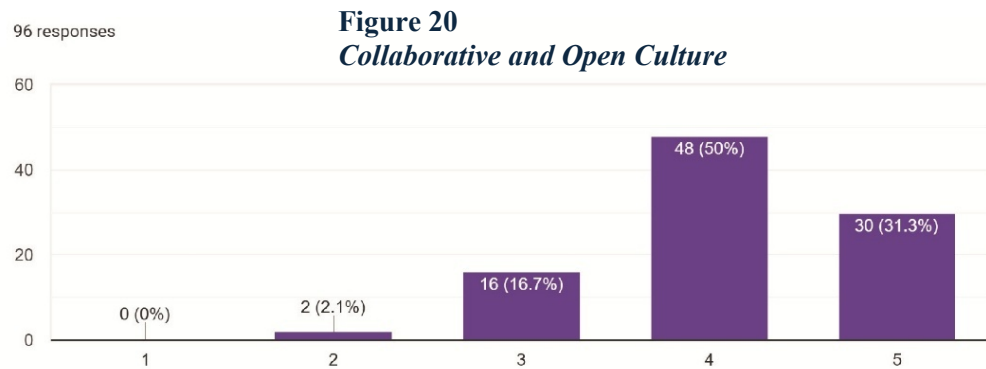
4.3.3.5 Allocation of Dedicated Resources (K2)



The allocation of dedicated resources (e.g., time, budget, personnel) was seen as essential by 84.4% of respondents (see Figure 19). Ad hoc approaches were deemed insufficient, reinforcing the case for systematic investment in innovation infrastructure.

Interview feedback reinforced these results, noting that assigning innovation-specific roles or teams supports creative problem-solving and signals leadership commitment. Overall, the evidence points to systematic investment in innovation infrastructure as a key driver of organisational agility, consistent with the literature on targeted investments improving adaptability and sustained innovation (Liedtka, 2020; Turskis & Šniokienė, 2024; Safón & Iborra, 2023).

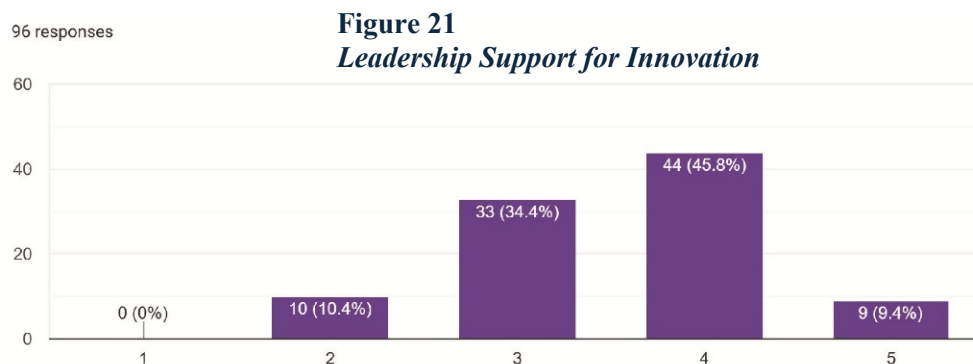
4.3.3.6 Collaborative and Open Culture (K3)



A collaborative culture is widely regarded as fundamental to innovation, with 81.3% of respondents recognising its importance (see Figure 20). Qualitative feedback emphasised the positive effects of cross-functional teamwork and open communication on ideation and experimentation, corroborating theoretical and empirical evidence in the literature (Liedtka, 2020).

Interview feedback reinforced the survey findings, with participants noting that cross-functional teamwork and open communication enable ideation and experimentation. One participant remarked, “When everyone feels they have a voice, new ideas surface more naturally - and we’re able to move faster.” These perspectives align with prevailing scholarship, which suggests that collaboration enhances knowledge exchange, agility, and creative responsiveness in SMEs (Liedtka, 2020; Leso & Ghezzi, 2023). Thus, fostering an open culture is not merely an aspirational goal but a strategic enabler of design thinking and innovation practices, particularly in resource-constrained yet agile SME contexts.

4.3.3.7 Leadership Support for Innovation (L1)



Survey results indicate that the majority of SMEs leaders perceive robust support from organisational leadership in the adoption and promotion of innovation management practices within decision-making frameworks. As depicted in Figure 21, 55.2% of respondents agreed or strongly agreed that leadership actively supports innovation management, 34.4% remained neutral, and only 10.4% disagreed. This reflects a broad - though not universal - recognition of the pivotal role leadership plays in fostering innovation at the organisational level.

Qualitative insights from interviews further reinforce these findings, with respondents consistently emphasising that visible leadership endorsement and the allocation of tangible resources are key drivers of innovation engagement. These observations are congruent with established scholarship, which underscores leadership commitment as a critical determinant of organisational creativity, adaptability, and long-term innovation performance (Bass & Avolio, 1994; Amabile et al., 1996; Safón & Iborra, 2023). Collectively, the evidence highlights the necessity of sustained leadership support to embed innovation management into decision-making routines and to cultivate a dynamic, forward-looking organisational culture within SMEs.

4.4 Correlation Analysis

Survey Question: How does board composition affect innovation?

Table 11
Correlation between Board Diversity and Innovation

Variables	C1	C2	C3	D1	D2	D3	D4
C1 Communicates Vision	1.00	.76	.80	.58	.67	.68	.55
C2 Encourages Problem Solving	.76	1.00	.72	.55	.72	.59	.61
C3 Fosters Collaboration	.80	.72	1.00	.52	.67	.77	.51
D1 Design Thinking Integration	.58	.55	.52	1.00	.57	.52	.59
D2 Encourages Experimentation	.67	.72	.67	.57	1.00	.68	.71
D3 Cross-Functional Collaboration	.68	.59	.77	.52	.68	1.00	.56
D4 Innovation Improves Efficiency	.55	.61	.51	.59	.71	.56	1.00

The interrelationship between key leadership behaviours, board diversity, and innovation outcomes was further elucidated through correlation analysis. Table 11 presents the correlation coefficients among principal variables: leadership communication (C1), encouragement of problem-solving (C2), fostering collaboration (C3), design thinking integration (D1), encouragement of experimentation (D2), cross-functional collaboration (D3), and perceived improvements in operational efficiency and customer satisfaction (D4).

Notably, the strongest positive correlations emerged between leadership communication and fostering collaboration ($r = 0.80$), and between fostering collaboration and cross-functional collaboration ($r = 0.77$). Similarly, encouragement of problem-solving exhibited substantial correlations with both leadership communication ($r = 0.76$) and encouragement of experimentation ($r = 0.72$). These results illustrate that transparent vision-setting, regular communication, and collaborative leadership are fundamentally intertwined with the successful implementation of innovation and design thinking in SMEs.

Interview feedback corroborated these findings, with senior leaders noting that “transparency and regular dialogue create trust, which directly translates into a more innovative culture.” The data also suggests that organisations with high board diversity and a collaborative ethos are more likely to achieve superior innovation outcomes. These findings are aligned with the theoretical propositions advanced in Chapters Two and Three, affirming that leadership behaviours and governance diversity are vital enablers of innovation-driven performance in SMEs contexts.

4.5 ANOVA Analysis

Table 12
ANOVA Summary of Innovation Outcomes by Ownership Structure

		Sum of Squares	df	Mean Square	F	Sig.	Interpretation
F1. The Ownership Structure in my Organisation Allows for Diverse Perspectives in Decision-Making	Between Groups	3.442	4	.861	1.48	.215	Not Significant
	Within Groups	52.964	91	.582			
	Total	56.406	95				
F2. Majority Ownership Influences Openness to Implementing Innovation Strategies	Between Groups	4.625	4	1.156	1.60	.180	Not Significant
	Within Groups	65.614	91	.721			
	Total	70.240	95				
G1. The Board Members have Diverse Expertise Skills for the Adoption of Design Thinking Practices	Between Groups	3.514	4	.878	1.34	.260	Not Significant
	Within Groups	59.476	91	.654			
	Total	62.990	95				
H1. The Board / Ownership Encourages Experimenting with New Approaches to Problem-Solving	Between Groups	8.498	4	2.125	3.27	.015	Significant ($p \leq 0.05$)
	Within Groups	59.158	91	.650			
	Total	67.656	95				

Note: A p -value ≤ 0.05 indicates statistically significant differences between groups.

To further interrogate the impact of ownership structures and board compositions on innovation outcomes, a one-way analysis of variance (“ANOVA”) was conducted. The analysis evaluated whether ownership structure (as proxied by business size groups) significantly influenced four innovation-related dimensions:

- F1: Ownership structure allowing for diverse perspectives in decision-making
- F2: Majority ownership’s effect on openness to innovation strategies
- G1: Board members’ diverse expertise in adopting design thinking
- H1: Ownership/board encouragement of experimentation

Among these variables, only H1, encouragement of experimentation by ownership/board showed a statistically significant difference across ownership structure groups, with $F(4, 91) = 3.27, p = .015$. This suggests that certain ownership structures are more likely to foster environments that encourage experimentation and innovative problem-solving – attributes critical to sustained innovation capability. The finding underscores the relevance of inclusive and participatory governance models in nurturing a culture conducive to innovation, as theorised in the literature (Zahra & Pearce, 1989; Safón & Iborra, 2023).

The other three factors did not yield statistically significant results:

F1: $F(4, 91) = 1.48, p = .215$

F2: $F(4, 91) = 1.60, p = .180$

G1: $F(4, 91) = 1.34, p = .260$

These results indicate that ownership structure, as categorised in this study, does not have a statistically significant effect on perceived diversity in decision-making, openness under majority ownership, or the influence of diverse board expertise on design thinking practices. These results collectively reinforce the centrality of governance style and board engagement in shaping the innovation landscape of SMEs.

Although only one factor reached statistical significance, qualitative responses suggested a broader perception that ownership diversity positively shapes innovation culture. One participant remarked, "Having diverse voices in ownership leads to more creative risk-taking, essential for disruptive innovation."

This insight aligns with the significant result for H1 and underscores the importance of experimentation within innovation management, particularly in more inclusive ownership models.

4.6 Summary of Chapter Four

This chapter has provided a comprehensive analysis of the empirical results pertaining to the interplay of corporate governance, leadership, and innovation management within SMEs. The findings confirm that visionary leadership, participative governance structures, and board diversity are strongly associated with successful adoption of design thinking and innovation practices. Leadership behaviours - especially those centred on clear communication, collaboration, and encouragement of creative problem-solving - emerge as fundamental enablers of innovation-driven organisational transformation.

At the same time, persistent barriers such as resource constraints, employee resistance to change, entrenched organisational cultures, and insufficient investment in structured innovation processes continue to challenge SMEs. The correlation and ANOVA analyses substantiate the hypothesis that inclusive governance and active board engagement significantly enhance innovation outcomes, while traditional and centralised models are more likely to inhibit progress. The subsequent chapter will synthesise these findings in relation to the broader theoretical literature, drawing practical recommendations for overcoming the persistent barriers to innovation within the SMEs sector.

4.6.1 *Thematic Analysis of Interview Data (Qualitative Findings)*

Qualitative evidence, integrated throughout this chapter, provides additional contextual depth - highlighting the lived experiences of SMEs leaders and the nuanced organisational dynamics that shape innovation trajectories. Collectively, these results offer actionable insights for SMEs leaders and policymakers, emphasising the critical importance of leadership advocacy, systematic resource allocation, and continuous capacity-building in building resilient, innovation-centric enterprises.

Theme 1: Leadership as a Catalyst for Innovation

“Without active leadership involvement, innovation tends to stall as employees prioritise operational tasks over creative problem-solving.”

Theme 2: Structural Barriers to Change

“Long-standing processes create comfort zones, making employees hesitant to adopt new strategies.”

Theme 3: Resource Limitations and Creativity

“We innovate on a shoestring – it’s exhausting but forces us to be resourceful.”

Theme 4: Governance Diversity Encourages Risk-Taking

“Having diverse voices in ownership leads to more creative risk-taking, essential for disruptive innovation.”

These qualitative insights enrich the quantitative patterns by highlighting the cultural, relational, and perceptual dynamics underpinning innovation adoption in SMEs.

Chapter Five: Discussion

5.1 Introduction

This chapter provides an integrated discussion of the research findings, synthesising the empirical results presented in Chapter Four with the theoretical perspectives and extant literature reviewed in Chapter Two. The discussion critically evaluates how the research objectives have been met and addresses the principal research questions outlined in Chapter One. Furthermore, this chapter delineates the contributions to theory and practice, recognises the study's limitations and delimitations, and identifies promising directions for future research. The analysis is designed to elucidate both the congruence and divergence between the current study's findings and established scholarly work, thereby advancing an understanding of how corporate governance and leadership influence the integration of design thinking and innovation management in SMEs.

5.2 Achievement of Research Objectives

5.2.1 *Objective 1: The Influence of Leadership Styles on Innovation in SMEs*

The findings of this study underscore the centrality of leadership behaviours in shaping the implementation and effectiveness of design thinking and innovation management within SMEs. Quantitative analysis revealed a robust positive association (P-coefficient = 0.80) between leadership communication and the fostering of cross-functional collaboration, highlighting that leaders who articulate a compelling vision and encourage creative problem-solving play a pivotal role in driving organisational innovation. This evidence is consistent with the work of Amabile et al. (1996), who emphasised the catalytic effect of transformational leadership in cultivating innovative work environments through enhanced collaboration and creativity.

Despite these positive influences, the study found that nearly half of participating SMEs lacked a formalised process for reviewing strategic innovation goals, with only 20.8% reporting quarterly assessments and 50% indicating no formal review practice at all. This gap suggests that while leadership intent may be clear, its translation into actionable and systematic innovation strategies remains inconsistent. Such a disconnect echoes the arguments of Mumford et al. (2020), who posited that without frequent and structured renewal, innovation efforts are prone to stagnation.

Qualitative insights corroborate these quantitative findings. Senior managers and team leaders interviewed for this research frequently identified leadership advocacy and visible endorsement as critical enablers for employee engagement in innovation initiatives. However, they also noted that entrenched routines and comfort with established processes can stymie efforts toward organisational transformation, particularly in mature SMEs with longstanding operational cultures.

5.2.2 Objective 2: The Role of Ownership Structures and Board Composition

The research further proves that different ownership structures and board make-ups have an important bearing on governance and/or innovation. A higher level of innovation outcome was noted for different SMEs ownership structures and this was confirmed with the ANOVA test results at $p < .01$. Such observations can be explained by the results of Eisenhardt and Schoonhoven (2018), who noted that ownership diversification and board experience lead to risk-taking and innovative problem-solving. Zahra and Pearce (1989) confirm that heterogeneous board compositions enhance governance quality and innovation.

Conversely, Safón & Iborra (2023) argue that SMEs with centralised ownership structures struggle to integrate external innovative insights, a challenge reflected in the findings of this study. Finally, exploratory findings suggested that diverse ownership fosters innovation in the organisational leadership and management, hence disruptive innovations. Still, there is a significant difference here with regards to the research material, where the first priority has been given to quarterly innovation reviews, while the present investigation reveals a lack of systematic practise among the SMEs being considered.

These findings are consistent with Zahra and Pearce (1989), who found that heterogeneous board compositions enhance strategic decision-making and innovation through diverse cognitive frameworks. Furthermore, House et al. (2004) argue that culturally adaptive leadership styles foster innovation in varied cultural environments, particularly within Asia-Pacific SMEs. Transactional leadership - focused on goal setting and monitoring which is effective when combined with adaptive cultural awareness, enabling leaders to drive innovation while respecting local dynamics.

These findings are also aligned with the GLOBE study (House et al., 2004), which emphasizes the value of culturally adaptive leadership in diverse regions like Southeast Asia. Transactional leadership, when coupled with cultural awareness and inclusivity, has been shown to foster risk-taking and collaboration - critical components of innovation in SMEs (Bass & Avolio, 1994; House et al., 2004).

Qualitative data further reinforced these trends: respondents indicated that diverse ownership fosters innovation-oriented leadership and enables disruptive approaches. Nonetheless, the lack of regularised, data-driven innovation assessments was observed as a recurrent limitation across SMEs, limiting the full realisation of governance-driven innovation.

5.2.3 *Objective 3: Barriers to Design Thinking and Innovation*

The study identified a constellation of persistent barriers impeding the adoption of design thinking and innovation in SMEs governance structures. Resource constraints, resistance to change, and entrenched organisational cultures emerged as the most prominent challenges, corroborating earlier findings by Zahra and George (2017) and Turskis & Šniokienė (2024). Long-tenured participants often attributed such resistance to organisational inertia, invoking the theoretical notion of path dependency wherein established practices inhibit flexibility and adaptation.

The qualitative themes extracted from interviews illustrate the lived experiences of SME leaders, who characterised their innovation efforts as “resourceful but exhausting,” with creative capacity often hamstrung by financial and operational limitations. Structural barriers, including highly centralised decision-making and hierarchical governance, were reported to slow the adoption of innovative strategies - an observation echoed in the literature (Carranco, 2008; Chawla, 2020).

Additionally, sectoral dynamics were found to influence innovation adoption. A notable proportion of SMEs (56.3%) in service-oriented sectors reported greater emphasis on client satisfaction over innovation, whereas technology firms demonstrated higher alignment with agile methodologies and design thinking principles (Leso & Ghezzi, 2023). These findings highlight the necessity of sector-sensitive approaches to governance and leadership reforms in SMEs.

5.3 Alignment with the Literature

The convergence between this study's findings and established theories is evident in several key areas. The demonstrated association between high leadership communication and collaborative behaviours aligns with transformational leadership theory, as articulated by Bass (1990), wherein leaders' visionary and supportive actions are pivotal in fostering creativity and innovation. Furthermore, the empirical linkage between ownership diversity and enhanced innovation supports Zahra and Pearce's (1989) arguments, and is reinforced by the GLOBE study's (House et al., 2004) emphasis on the value of culturally adaptive and inclusive leadership in the Asia-Pacific SMEs context.

Conversely, the research exposes areas where SMEs diverge from best practices espoused in the literature - most notably, the limited prevalence of systematic strategic goal reviews. While Amabile et al. (1996) advocate for continuous evaluation as a driver of innovation, the findings here reveal a lag in institutionalising such mechanisms within SMEs governance frameworks. This underscores the challenge of translating theoretical models into routine organisational practice, particularly in resource-constrained and traditionally governed SMEs.

5.4 Contributions to Theory and Practice

This research offers several substantive contributions to the literature on corporate governance, leadership, and innovation in SMEs. Theoretically, the study enriches understanding of the intricate linkages between leadership styles, board diversity, and innovation performance, particularly within emerging-market and resource-limited SMEs settings. The integration of qualitative perspectives provides depth to quantitative trends, revealing the nuanced cultural and relational dynamics underpinning innovation adoption.

Practically, the study advances actionable insights for SMEs leaders and policymakers. The findings advocate for the institutionalisation of frequent strategic innovation reviews, the cultivation of board and ownership diversity, and the empowerment of leaders to champion creative risk-taking. By emphasising the value of inclusive governance structures and systematic innovation assessments, the research highlights pathways for overcoming entrenched barriers and driving sustainable growth in SMEs.

5.5 Limitations and Delimitations

5.5.1 *Limitations of the Study*

Despite rigorous methodological design, several limitations must be acknowledged. Firstly, analysing the data on the subjects at a given point in time enshrouds the study in issues to do with cross-sectional causality. There is need to undertake longitudinal analysis to determine the effects of changes in governance and leadership on innovation. Second, the use of the questionnaire may generate response bias because participants might admit high levels of commitment to innovation. Third, despite selecting 96 SMEs for this study, it may be argued that the total is not large enough or diverse enough to afford a complete vista of SMEs as major players in different industries and regions. Additionally, while purposive sampling allowed for focused recruitment of knowledgeable SMEs leaders, the use of professional referrals may have introduced some selection bias. This could affect the generalizability of the findings to the broader SMEs population, particularly in regions or sectors not represented in the sample.

Moreover, the present study also omission of age and gender data in the demographic section, while the survey captured valuable information such as job titles, industry affiliation, and years of experience. This decision was made to maintain focus on organisational roles and governance contexts. However, the absence of such demographic information limits the ability to analyse potential differences in leadership styles, governance practices, or innovation outcomes across age or gender groups. Future research should consider including age and gender distributions in the sampling and analysis framework to provide a more comprehensive understanding of how these factors might shape SMEs leadership and innovation practices (Klein & Sauer, 2021).

5.5.2 Delimitations of the Study

This research is confined to SMEs and does not extrapolate findings to large corporations, whose governance structures and innovation processes are often more formalised and complex. Although the sample encompasses a diverse array of industries, the study does not conduct in-depth sector-wise comparative analysis. These delimitations are purposeful, reflecting the specific focus on SMEs governance and leadership models.

5.6 Future Research Directions

The findings of this study provide a foundational understanding of the interplay between corporate governance, leadership practices, and innovation within SMEs. However, further research is needed to deepen these insights and broaden the applicability of results across different contexts.

One promising direction for future research is the adoption of longitudinal study designs. While this research employed a cross-sectional approach to capture data at a single point in time, longitudinal studies would enable the tracking of changes in governance structures, leadership styles, and innovation outcomes over time. Such studies could offer valuable insights into how SMEs adapt their innovation strategies in response to internal leadership transitions or evolving market conditions.

Another avenue for exploration lies in sector-specific studies. Although this research covered a range of industries - including retail, manufacturing, technology, and services - it did not provide a detailed comparative analysis across sectors. Future studies could explore how sector-specific dynamics influence the adoption of design thinking and innovation practices, particularly in traditionally conservative industries such as manufacturing.

Additionally, future research could incorporate demographic variables such as age and gender to explore how these factors may shape leadership styles, governance preferences, and innovation receptiveness within SMEs. Including such demographic insights would enable a more holistic understanding of how diverse leadership profiles contribute to innovation outcomes across various organisational contexts.

Finally, with the increasing digitisation of business processes, future research could also examine the role of digital transformation and emerging technologies in enhancing innovation and governance effectiveness in SMEs. This includes studying the influence of AI, automation, and digital collaboration tools in reshaping traditional leadership and innovation models.

By addressing these areas, future research can contribute to a more comprehensive and context-sensitive body of knowledge, helping SMEs leaders and policymakers design more effective strategies for governance and innovation.

To guide future scholars and practitioners, the following key research areas are proposed:

1. An empirical study on the impact of leadership and governance transitions on innovation system and growth rates.
2. A comparative analysis of SMEs across industries to identify sector-specific challenges and opportunities for innovation.
3. The role of digital transformation in fostering innovation in SMEs, with a focus on developing economies.
4. The correlation between SIR and performance indicators in SMEs.

These research directions aim to expand the theoretical and practical understanding of governance and leadership in SMEs, offering pathways for enhancing their resilience and competitive advantage.

5.7 Summary of Chapter Five

This chapter has synthesised the empirical findings of the study with existing literature and theoretical perspectives to critically examine how corporate governance and leadership practices influence innovation within SMEs. The analysis confirmed that transformational leadership, characterised by clear communication, collaboration, and support for creative problem-solving, positively correlates with the adoption of design thinking and innovation management. Furthermore, the discussion highlighted that diverse ownership structures and inclusive board compositions enhance governance effectiveness and promote risk-taking behaviours essential for innovation.

Despite these positive associations, several barriers - particularly resource constraints, rigid organisational structures, and resistance to change; were identified as persistent inhibitors to innovation. The chapter also discussed the infrequent use of strategic innovation reviews across SMEs, revealing a misalignment between leadership intent and execution. These findings are largely consistent with the literature, though they also highlight gaps where SMEs lag in institutionalising innovation as a strategic priority.

The discussion provides valuable insights for SMEs leaders and policymakers, suggesting that fostering inclusive governance, empowering leadership, and embedding regular innovation assessments are essential to overcoming systemic challenges and driving sustainable growth. The limitations of the study and recommendations for future research were also outlined to guide ongoing exploration in this critical field.

Chapter Six: Conclusion

6.1 Conclusion

This research has confirmed that leadership plays a pivotal role in shaping corporate governance and advancing innovation within SMEs. By fulfilling the research objectives, the study has elucidated the nuanced impacts of different leadership styles and the importance of diverse ownership structures, while also identifying ongoing barriers to innovation. These findings largely align with extant literature, yet the present study offers practical recommendations - most notably, the necessity of institutionalising regular strategic innovation reviews. Addressing such gaps can better equip SMEs to integrate design thinking and innovation management systematically into their governance practices, thereby strengthening prospects for sustained growth and competitiveness.

6.1.1 *Key Findings and Contributions*

1. *Leadership styles and innovation:* Both visionary and transactional leadership styles, as well as culturally adaptive approaches, were shown to significantly facilitate the adoption of design thinking and innovation management practices in SMEs. Leaders who demonstrated transparent communication, encouragement of creative problem-solving, and support for experimentation cultivated more innovative organisational cultures.
2. *Governance diversity and openness:* SMEs that employed diverse ownership structures and inclusive board compositions exhibited greater openness to collaboration and risk-taking. These governance models fostered dynamic decision-making processes and supported the implementation of innovative strategies.

3. *Adoption of design thinking*: The integration of design thinking principles within organisational workflows correlated strongly with improved employee engagement, operational efficiency, and customer satisfaction. Adoption was highest in customer-centric sectors such as retail and technology.

4. *Barriers to innovation*: The principal barriers identified were resource constraints, entrenched organisational cultures, and employee resistance to change. Centralised, owner-driven models and traditional hierarchical structures were found to limit creative autonomy and slow the diffusion of innovative practices.

5. *Critical enablers*: Structured training, regular workshops, dedicated roles for innovation, and a collaborative, open culture emerged as essential enablers of successful innovation adoption. Leadership commitment to these practices was crucial for overcoming resistance and driving continuous improvement.

6. *Sectoral differences*: Significant variation was observed across sectors, with retail and technology SMEs demonstrating higher levels of design thinking integration and innovation responsiveness compared to more traditional sectors such as manufacturing.

7. *Empirical support for theoretical frameworks*: The study provides empirical support for the applicability of Agency Theory, RBV, and Stakeholder Theory to the context of SMEs innovation management, reinforcing the relevance of these frameworks in explaining governance and leadership dynamics.

8. *Policy and practical implications*: The findings underscore the need for SMEs leaders and policymakers to prioritise leadership development, promote stakeholder engagement, invest in ongoing training, and implement regular strategic innovation reviews to enhance organisational competitiveness and resilience.

This research advances the current discourse on the intersection of leadership, governance, and innovation within SMEs. Unlike much of the prior literature that focuses predominantly on large organisations, this study provides contextually grounded, empirical insights specific to SMEs. The results reinforce the significance of transformational leadership and inclusive governance frameworks in shaping innovation capacity, while also foregrounding the practical importance of routine strategic innovation reviews.

6.1.2 *Future Scope of Study*

1. *Longitudinal research*: Future studies should employ longitudinal designs to capture the evolution of governance structures, leadership strategies, and innovation outcomes over time, providing a more dynamic understanding of how SMEs adapt to changing market conditions.
2. *Sector-specific comparative analysis*: Deeper sectoral analyses are needed to explore industry-specific challenges and enablers, particularly in conservative sectors such as manufacturing. Such work would clarify the differentiated impacts of governance and leadership on innovation across sectors.
3. *Demographic variables*: Subsequent research should integrate demographic factors, such as age and gender, to examine their influence on leadership styles, governance preferences, and openness to innovation within SMEs.
4. *Digital transformation and technology adoption*: As digitisation accelerates, it is crucial to investigate the role of digital transformation - including AI, automation, and digital collaboration tools - in shaping innovation and governance effectiveness, especially in developing economies.
5. *Financial mechanisms and innovation barriers*: Additional research is warranted on the financing constraints faced by SMEs and the effectiveness of alternative funding mechanisms in overcoming innovation barriers.

Addressing governance and leadership challenges in innovation is vital for SMEs growth and competitiveness. This research highlights the need for adaptive, collaborative, and well-governed environments to sustain innovation. SMEs should adopt frameworks that strengthen effectiveness and promote leadership strategies encouraging experimentation and collaboration. These findings form a basis for future research and policies to enhance SME resilience in dynamic markets.

6.1.3 *Summary of Key Findings*

The research identified several critical findings that deepen the understanding of how governance and leadership practices influence innovation in SMEs:

1. Leadership communication and collaboration are strong predictors of innovation engagement. A high correlation ($r = 0.80$) was observed between leadership vision clarity and team collaboration.
2. Cross-functional collaboration is significantly associated with innovation success ($r = 0.77$), indicating that team integration is crucial for creative problem-solving.
3. Diverse ownership structures, including external advisors and independent board members, positively influence innovation through openness to risk-taking and experimentation.
4. One-way ANOVA revealed that only the variable related to board encouragement of experimentation (H1) showed a statistically significant difference across ownership types ($p = 0.015$).
5. Resource constraints are a critical barrier, with 64.6% of respondents identifying limited budgets and staffing as a major challenge to innovation implementation.
6. Resistance to change among employees, especially in traditionally structured SMEs, hinders innovation. This resistance is negatively correlated with leadership communication clarity.
7. Strategic Innovation Goal Reviews are largely absent in many SMEs, with 50% reporting that they never conduct such reviews, reflecting a lack of routine strategic planning.
8. Design Thinking principles are moderately adopted, with strongest implementation seen in the retail and technology sectors. However, manufacturing SMEs lag behind due to structural rigidity and low exposure.

Collectively, these findings reinforce the central role of leadership and governance diversity in shaping the innovation trajectories of SMEs. The evidence supports the view that transformational leadership, inclusive governance, and systematic review processes are foundational to building resilient and innovative SMEs organisations.

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Appendix 1: Consent Form

CONSENT FORM FOR PROJECT PARTICIPANTS

Title of Project: A Cross-Sectional Study on Corporate Governance and Leadership Challenges in Small and Medium Enterprises: Overcoming Barriers to Design Thinking and Innovation Management

Dear Participant,

I am **NG BOON WAH**, a doctoral student at East Bridge University, specialising in Design Thinking and Innovation Management. I am conducting this research as part of my dissertation to explore challenges and strategies in corporate governance and leadership within SMEs to promote innovative practices.

Purpose of the Study

The study aims to identify barriers and propose solutions for integrating Design Thinking and Innovation Management into SME governance and leadership frameworks.

Participation Details

- **Eligibility:** Full-time employees in the SMEs sector.
- **Duration:** The questionnaire will take 10–20 minutes to complete.
- **Voluntary Participation:** Your participation is entirely voluntary. You may withdraw at any time without consequence.

Confidentiality

All responses will remain strictly confidential and anonymous. Data will be used only for academic purposes, including my dissertation and potential publications.

Researcher and Contact Information

- **Researcher:** NG BOON WAH (Student ID: EBU630905), Email: ngboonwah@gmail.com
- **Supervisor:** Dr SARANYA DESIKAN, East Bridge University

By signing below, you acknowledge that you have read and understood the purpose of the study, and you consent to participate.

Participant Consent Acknowledgment

I, _____, confirm that I have read the information provided and agree to participate in this research study. I understand that my participation is voluntary and that I can withdraw at any time.

Name: _____

Signature: _____

Date: _____

Thank you for your valuable contribution to this research.

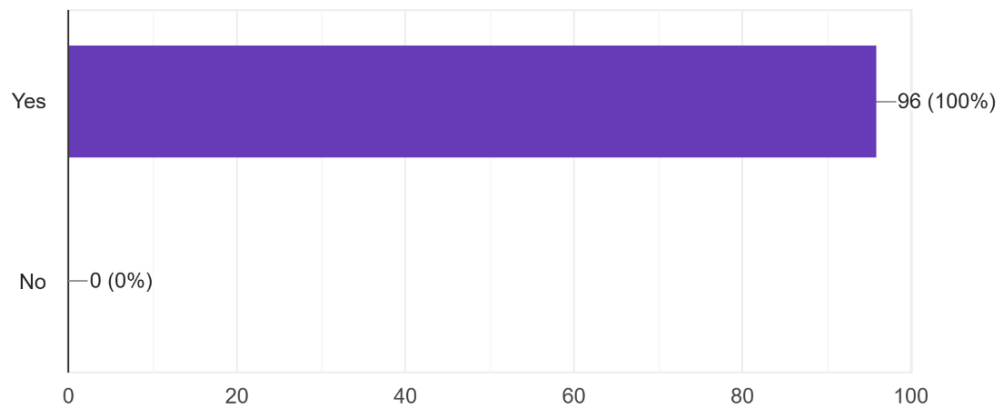
Sincerely,
Ng Boon Wah

25 November 2024

Appendix 2: Ethical Considerations

Participant Consent Acknowledgment

96 responses



Participant Consent Acknowledgment *

I confirm that I have read the information provided and agree to participate in this research study. I understand that my participation is voluntary and that I can withdraw at any time.

☐ Yes

☐ No

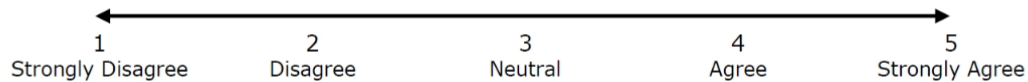
Appendix 3: Survey / Questionnaires

SECTION A: DEMOGRAPHIC QUESTIONS

Goal: To Gather Contextual Demographic Data about the Respondents, which Help Interpret Their Views on Leadership, Governance and Innovation

- | | | |
|---|---|--|
| A1. Current Role in the Organisation | ☐ Owner | ☐ Senior Manager |
| | ☐ Board Member | ☐ Middle Manager |
| | ☐ CEO / Managing Director | ☐ Team Leader / Other |
| A2. Years of Experience in Your Current Role | ☐ Less than 1 year | ☐ 11 - 20 years |
| | ☐ 1 - 5 years | ☐ More than 20 years |
| | ☐ 6 - 10 years | |
| A3. Education Level | ☐ Primary / Secondary School | ☐ Postgraduate |
| | ☐ College / Pre-Uni | ☐ Graduate |
| | ☐ Undergraduate | ☐ Prefer Not to Say |
| A4. Employees by Business Size | ☐ less than 10 | ☐ 50 – 249 |
| | ☐ 10 - 49 | ☐ 250 or more |
| A5. Industry of your Organisation Primarily Operate | ☐ Manufacturing | ☐ Technology |
| | ☐ Services | ☐ Retail |
| | | ☐ Other |
| A6. Organisation Been In Operations | ☐ Less than 1 year | ☐ 11 - 20 years |
| | ☐ 1 - 5 years | ☐ More than 20 years |
| | ☐ 6 - 10 years | |

Instruction: Please provide your best opinion according to the following scaling matrix for below questionnaire.



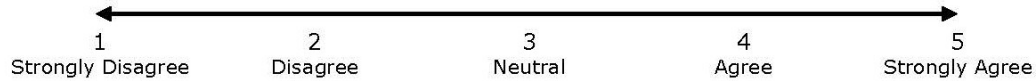
SECTION B: ORGANISATIONAL STRUCTURE

Goal: To Understand Organisational Characteristics Related to Leadership and Governance that Influence the Adoption of Innovation

- | | | |
|--|--|---|
| B1. How Frequent Does the Board Review Strategic Innovation Goals? | ☐ Monthly | ☐ Annually |
| | ☐ Quarterly | ☐ Never |
| B2. Decision Making within the Organisation | ☐ Highly Centralised (Made by Top Management)
☐ Moderately Centralised
☐ Decentralised (Delegated Across Levels) | |
| B3. The Board and Leadership Frequently Collaborate on Innovation Strategies | ☐ 1 | ☐ 2 ☐ 3 ☐ 4 ☐ 5 |
| B4. Establish Dedicated Roles Focused on Innovation or Design Thinking Process | ☐ Yes, setup dedicated innovation / design thinking team
☐ No, responsibilities distributed across roles
☐ No formal structure for Innovation | |
| B5. The Organisation's Structure is Flexible in Adapting New Initiatives, e.g. Design Thinking | ☐ Highly Flexible | ☐ Moderately Flexible ☐ Rigid |

Appendix 3: Survey / Questionnaires

Instruction: Please provide your best opinion according to the following scaling matrix for below questionnaire.



RESEARCH QUESTION: LEADERSHIP STYLES AND THEIR INFLUENCE ON DESIGN THINKING AND INNOVATION MANAGEMENT IN SMEs

SECTION C: LEADERSHIP STYLES

Goal: Measure Key Leadership Behaviours Influencing Innovation and Design Thinking Practices

- | | | | | | | |
|-----|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| C1. | My Leader Clearly Communicates a Compelling Vision to Inspire Innovation in the Organisation | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| C2. | My Leader Encourages Create Problem-Solving Among Employees | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| C3. | My Leader Fosters Collaboration Across Teams and Departments | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION D: DESIGN THINKING ADOPTION AND INNOVATION MANAGEMENT SUCCESS

Goal: Evaluate The Extent of Design Thinking Principles in the Organisation and the Success of Innovation Initiative under the Current Leadership Styles

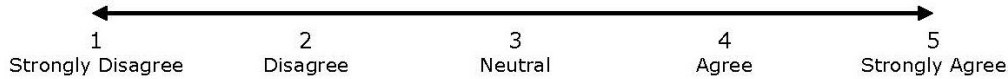
- | | | | | | | |
|-----|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| D1. | Design Thinking Principles, i.e., Prototyping and Iteration, are Integrated into the Organisation's Workflows | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| D2. | Employees are Encouraged to Experiment with New Ideas and Refine Solutions through Feedback | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| D3. | Cross-Functional Teams Regularly Collaborate to Address Complex Challenges to Drive Innovation | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| D4. | Innovation Practices in the Organisation have Improved Operational Efficiency and Customer Satisfaction | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION E: ADDITIONAL COMMENTS or SUGGESTIONS

- E1. What Leadership Behaviours Have Most Influenced Innovation and Design Thinking in Your Organisation?

Appendix 3: Survey / Questionnaires

Instruction: Please provide your best opinion according to the following scaling matrix for below questionnaire.



RESEARCH QUESTION: OWNERSHIP STRUCTURES, BOARD COMPOSITION, AND THEIR INFLUENCE ON DESIGN THINKING AND INNOVATION STRATEGIES in SMEs

SECTION F: OWNERSHIP STRUCTURE AND DECISION-MAKING

Goal: To Evaluate the Influence of Ownership Structures on Decision-Making Regarding Innovation and Design Thinking Adoption

- | | | | | | | |
|-----|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| F1. | The Ownership Structure in my Organisation Allows for Diverse Perspectives in Decision-Making | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| F2. | Majority Ownership Influences Openness to Implementing Innovation Strategies | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION G: BOARD COMPOSITION AND GOVERNANCE PRACTICES

Goal: To Assess How the Composition of Boards Impacts Innovation Strategies

- | | | | | | | |
|-----|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| G1. | The Board Members have Diverse Expertise Skills for the Adoption of Design Thinking Practices | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| G2. | Corporate Governance much contribute to the Culture of Experimentation in the Organisation | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION H: OPENNESS TO DESIGN THINKING AND INNOVATION STRATEGIES

Goal: To Measure Organisational Openness to Adopting Design Thinking and Innovation Strategies

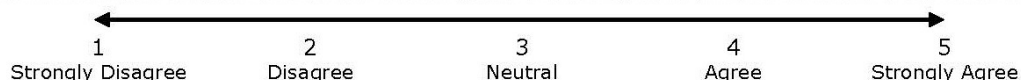
- | | | | | | | |
|-----|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| H1. | The Board / Ownership Encourages Experimenting with New Approaches to Problem-Solving | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| H2. | The Employees feel Their Input is Valued in Shaping Innovation Projects | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION I: ADDITIONAL COMMENTS or SUGGESTIONS

- I1. How Do You Believe Your Organisation's Ownership and Board Structures Influence its Approach to Design Thinking and Innovation Strategies?

Appendix 3: Survey / Questionnaires

Instruction: Please provide your best opinion according to the following scaling matrix for below questionnaire.



RESEARCH QUESTION: BEST PRACTICES FOR OVERCOMING BARRIERS TO DESIGN THINKING AND INNOVATION MANAGEMENT IN SMEs

SECTION J: BARRIERS TO IMPLEMENTING DESIGN THINKING AND INNOVATION MANAGEMENT

Goal: Identify Common Barriers that SMEs Face when Adopting Design Thinking and Innovation Management Practices

- | | | | | | | |
|-----|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| J1. | Having Challenges in Allocating Sufficient Resources (i.e., time, budget, personnel) for Innovation Projects | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| J2. | Resistance to Change from Employees is a Significant Barrier to Adopting New Innovation Management Practices | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| J3. | Organisational Culture and a Focus on Traditional Methods Prevents Us from Fully Embracing Innovation Management | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION K: BEST PRACTICES FOR OVERCOMING BARRIERS

Goal: Explore Best Practices that have Helped Overcome Barriers to the Implementation of Design Thinking and Innovation Management in SMEs

- | | | | | | | |
|-----|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| K1. | Providing Training and Workshops on Design Thinking Practices to Improve the Adoption | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| K2. | Allocating Dedicated Resources (i.e., time, budget, personnel) for Innovation Management Initiatives Help Improved Implementation | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
| K3. | Fostering a Culture of Collaboration and Openness to New Ideas Help Facilitated Innovation | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |

SECTION L: LEADERSHIP AND GOVERNANCE PRACTICES FOR INNOVATION

Goal: Assess How Leadership and Governance Structures Support Innovation

- | | | | | | | |
|-----|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| L1. | Leadership in my Organisation Actively Supports and Promotes the use of Innovation Management Practices in Decision-Making | ☐ 1 | ☐ 2 | ☐ 3 | ☐ 4 | ☐ 5 |
|-----|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|

SECTION M: ADDITIONAL COMMENTS or SUGGESTIONS

- M1. What Additional Best Practices Have Helped Your Organisation Overcome Barriers to Adopting Design Thinking and Innovation Management?

Appendix 4: Survey Invitation on LinkedIn and Facebook

The screenshot shows the LinkedIn profile of Boon Wah NG, a CMgr, MCIM, SIRM, MBA, MSc, MBCC, with 295 followers. The recent activity post, dated 4 weeks ago, is a survey invitation titled "Study on Corporate Governance and Leadership Challenges in Small, Medium Enterprises (SMEs)..." from docs.google.com. The post includes a thumbnail image of a document and text asking readers to participate in the study. It has 2 reposts and 80 impressions. A promoted post from True Business is also visible on the right.

The screenshot shows the Facebook profile of Ng Boon Wah, a digital creator. The profile lists several educational and professional achievements, including a former role as Financial Controller at Keppel Puravankara Development, a Master's degree in Business and Corporate Communications from ENEB, an MSc in Accounting and Finance from the University of Northampton, an OTHM Level 7 Diploma in Risk Management from the London School of International Business, and an MBA Finance from the Irish University Business School. The pinned post, dated 26 November at 14:41, is a survey invitation titled "Study on Corporate Governance and Leadership Challenges in Small, Medium Enterprises (SMEs)..." from docs.google.com. The post includes a thumbnail image of a document and text asking readers to participate in the study. It has 1 share and a "Boost post" button.

Appendix 5: SPSS Output

Frequencies

Statistics

		A1. Job Title within the Organisation	A2. Years of Experience in Your Current Role	A4. Employees by Business Size	A5. Industry of Your Organisation Primarily Operate	B1. How Frequent Does the Board Review Strategic Innovation Goals?
N	Valid	96	96	96	96	96
	Missing	0	0	0	0	0
Mean		3.29	2.40	2.90	2.09	2.13
Median		3.00	2.00	3.00	1.00	1.50
Mode		2	2	3	1	1
Std. Deviation		1.281	1.100	.946	1.536	1.242

Appendix E: SPSS Output

Frequency Table

A1. Job Title within the Organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Board Member	3	3.1	3.1	3.1
	Senior Manager	32	33.3	33.3	36.5
	Middle Manager	18	18.8	18.8	55.2
	Team Leader / Other	24	25.0	25.0	80.2
	Owner	15	15.6	15.6	95.8
	CEO / Managing Director	4	4.2	4.2	100.0
	Total	96	100.0	100.0	

A2. Years of Experience in Your Current Role

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 5 years	23	24.0	24.0	24.0
	6 - 10 years	32	33.3	33.3	57.3
	11 - 20 years	24	25.0	25.0	82.3
	More than 20 years	14	14.6	14.6	96.9
	Less than 1 year	3	3.1	3.1	100.0
	Total	96	100.0	100.0	

Appendix E: SPSS Output

Frequency Table

A4. Employees by Business Size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than 10	11	11.5	11.5	11.5
	10 - 49	15	15.6	15.6	27.1
	50 - 249	43	44.8	44.8	71.9
	250 or more	27	28.1	28.1	100.0
	Total	96	100.0	100.0	

A5. Industry of Your Organisation Primarily Operate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retail	54	56.3	56.3	56.3
	Manufacturing	18	18.8	18.8	75.0
	Technology	9	9.4	9.4	84.4
	Other	15	15.6	15.6	100.0
	Total	96	100.0	100.0	

Appendix E: SPSS Output

Frequency Table

B1. How Frequent Does the Board Review Strategic Innovation Goals?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	48	50.0	50.0	50.0
	Monthly	8	8.3	8.3	58.3
	Quarterly	20	20.8	20.8	79.2
	Annually	20	20.8	20.8	100.0
	Total	96	100.0	100.0	

Appendix E: SPSS Output

Correlations

		C1. My Leader Clearly Communicates a Compelling Vision to Inspire Innovation in the Organisation	C2. My Leader Encourages Create Problem-Solving Among Employees	C3. My Leader Fosters Collaboration Across Teams and Departments	D1. Design Thinking Principles, i.e., Prototyping and Iteration, are Integrated into the Organisation' s Workflows	D2. Employees are Encouraged to Experiment with New Ideas and Refine Solutions through Feedback	D3. Cross-Functional Teams Regularly Collaborate to Address Complex Challenges to Drive Innovation	D4. Innovation Practices in the Organisation have Improved Operational Efficiency and Customer Satisfaction
C1. My Leader Clearly Communicates a Compelling Vision to Inspire Innovation in the Organisation	Pearson Correlation	1	.762**	.804**	.583**	.671**	.685**	.555**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	96	96	96	96	96	96	96
C2. My Leader Encourages Create Problem-Solving Among Employees	Pearson Correlation	.762**	1	.724**	.556**	.721**	.593**	.617**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	96	96	96	96	96	96	96
C3. My Leader Fosters Collaboration Across Teams and Departments	Pearson Correlation	.804**	.724**	1	.524**	.671**	.778**	.519**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	96	96	96	96	96	96	96

Appendix E: SPSS Output

Correlations

		C1. My Leader Clearly Communicates a Compelling Vision to Inspire Innovation in the Organisation	C2. My Leader Encourages Create Problem-Solving Among Employees	C3. My Leader Fosters Collaboration Across Teams and Departments	D1. Design Thinking Principles, i.e., Prototyping and Iteration, are Integrated into the Organisation's Workflows	D2. Employees are Encouraged to Experiment with New Ideas and Refine Solutions through Feedback	D3. Cross-Functional Teams Regularly Collaborate to Address Complex Challenges to Drive Innovation	D4. Innovation Practices in the Organisation have Improved Operational Efficiency and Customer Satisfaction
D1. Design Thinking Principles, i.e., Prototyping and Iteration, are Integrated into the Organisation's Workflows	Pearson Correlation	.583**	.556**	.524**	1	.568**	.525**	.594**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	96	96	96	96	96	96	96
D2. Employees are Encouraged to Experiment with New Ideas and Refine Solutions through Feedback	Pearson Correlation	.671**	.721**	.671**	.568**	1	.689**	.715**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	96	96	96	96	96	96	96
D3. Cross-Functional Teams Regularly Collaborate to Address Complex Challenges to Drive Innovation	Pearson Correlation	.685**	.593**	.778**	.525**	.689**	1	.560**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	96	96	96	96	96	96	96

Appendix E: SPSS Output

Correlations

		C1. My Leader Clearly Communicates a Compelling Vision to Inspire Innovation in the Organisation	C2. My Leader Encourages Create Problem-Solving Among Employees	C3. My Leader Fosters Collaboration Across Teams and Departments	D1. Design Thinking Principles, i.e., Prototyping and Iteration, are Integrated into the Organisation' s Workflows	D2. Employees are Encouraged to Experiment with New Ideas and Refine Solutions through Feedback	D3. Cross-Functional Teams Regularly Collaborate to Address Complex Challenges to Drive Innovation	D4. Innovation Practices in the Organisation have Improved Operational Efficiency and Customer Satisfaction
D4. Innovation Practices in the Organisation have Improved Operational Efficiency and Customer Satisfaction	Pearson Correlation	.555**	.617**	.519**	.594**	.715**	.560**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	96	96	96	96	96	96	96

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix E: SPSS Output

Custom Tables

A4. Employees by Business Size

		Less Than 10	10 - 49	50 - 249	250 or more	Total
		Row N %	Row N %	Row N %	Row N %	Row N %
J1. Having Challenges in Allocating Sufficient Resources (i.e., time, budget, personnel) for Innovation Projects	1	(50.0)	(.0)	(.0)	(50.0)	(100.0)
	2	(.0)	(.0)	(75.0)	(25.0)	(100.0)
	3	(17.9)	(21.4)	(32.1)	(28.6)	(100.0)
	4	(4.5)	(13.6)	(50.0)	(31.8)	(100.0)
	5	(16.7)	(16.7)	(50.0)	(16.7)	(100.0)
J2. Resistance to Change from Employees is a Significant Barrier to Adopting New Innovation Management Practices	1	(100.0)	(.0)	(.0)	(.0)	(100.0)
	2	(22.2)	(22.2)	(44.4)	(11.1)	(100.0)
	3	(15.4)	(11.5)	(42.3)	(30.8)	(100.0)
	4	(7.5)	(17.5)	(40.0)	(35.0)	(100.0)
	5	(5.0)	(15.0)	(60.0)	(20.0)	(100.0)
J3. Organisational Culture and a Focus on Traditional Methods Prevents Us from Fully Embracing Innovation Management	1	(.0)	(.0)	(.0)	(100.0)	(100.0)
	2	(20.0)	(30.0)	(30.0)	(20.0)	(100.0)
	3	(18.4)	(13.2)	(34.2)	(34.2)	(100.0)
	4	(2.9)	(14.3)	(60.0)	(22.9)	(100.0)
	5	(9.1)	(18.2)	(54.5)	(18.2)	(100.0)

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**A Cross-Sectional Study on Corporate
Governance and Leadership Challenges
in Small and Medium Enterprises:
Overcoming Barriers to Design Thinking
and Innovation Management**

**A Thesis Presented to
East Bridge University**

In Partial Fulfillment
of the Requirements of the
Executive Doctorate in
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by
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